Draft

NLIP Landside Improvements Project
Programmatic Long-Term Management Plan

Prepared for:

Sacramento Area Flood Control Agency

March 13, 2009

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Programmatic Long-Term Management Plan

Prepared for:

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ACRONYMS AND ABBREVIATIONS

agreement	long-term management or water delivery agreement with SAFCA
Airport	Sacramento International Airport
B.P.	Before Present
BEMP	Biological Effectiveness Monitoring Program
Basin	Natomas Basin
CE	conservation easement
Central Valley RWQCB	Central Valley Regional Water Quality Control Board
CESA	California Endangered Species Act
DCE	drainage control easement
DFG	California Department of Fish and Game
ESA	Federal Endangered Species Act
ESU	evolutionarily significant unit
FAA	Federal Aviation Administration
FCE	flood control easement
Flood damage reduction facilities	levee slopes, seepage berms, and operation and maintenance corridor
GGS	giant garter snake
GGS/Drainage Canal	new canal designed to provide drainage and associated giant garter snake habitat
GIS	Geographic Information Systems
H:V	horizontal-to-vertical
HCP	habitat conservation plan
I-5	Interstate 5
jet	turbine-powered aircraft
LTMP	long-term management plan
land manager	entity responsible for operations and maintenance of the canal improvement and habitat compensation sites
Metro Air Park HCP	Metro Air Park Habitat Conservation Plan
MMP	mitigation and monitoring plan
msl	mean sea level
Natomas Basin HCP	Natomas Basin Habitat Conservation Plan
NCC	Natomas Cross Canal
NCMWC	Natomas Central Mutual Water Company
NEMDC	Natomas East Main Drainage Canal
NLIP	Natomas Levee Improvement Program

PGCC	Pleasant Grove Creek Canal
Phase 2 MMP	Mitigation and Monitoring Plan: SAFCA NLIP Phase 2 Landside Improvements Project
Project	Landside Improvements Project
RD	Reclamation District
Resource Agencies	U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and California Department of Fish and Game
Sacramento-Yolo MVCD	Sacramento-Yolo Mosquito Vector Control District
SAFCA	Sacramento Area Flood Control Agency
SCAS	Sacramento County Airport System
SR	State Route
SSMP	site-specific management plan
Sutter-Yuba MVCD	Sutter-Yuba Mosquito Vector Control District
TNBC	The Natomas Basin Conservancy
TPB	third-party beneficiary
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WFE	water facilities easement

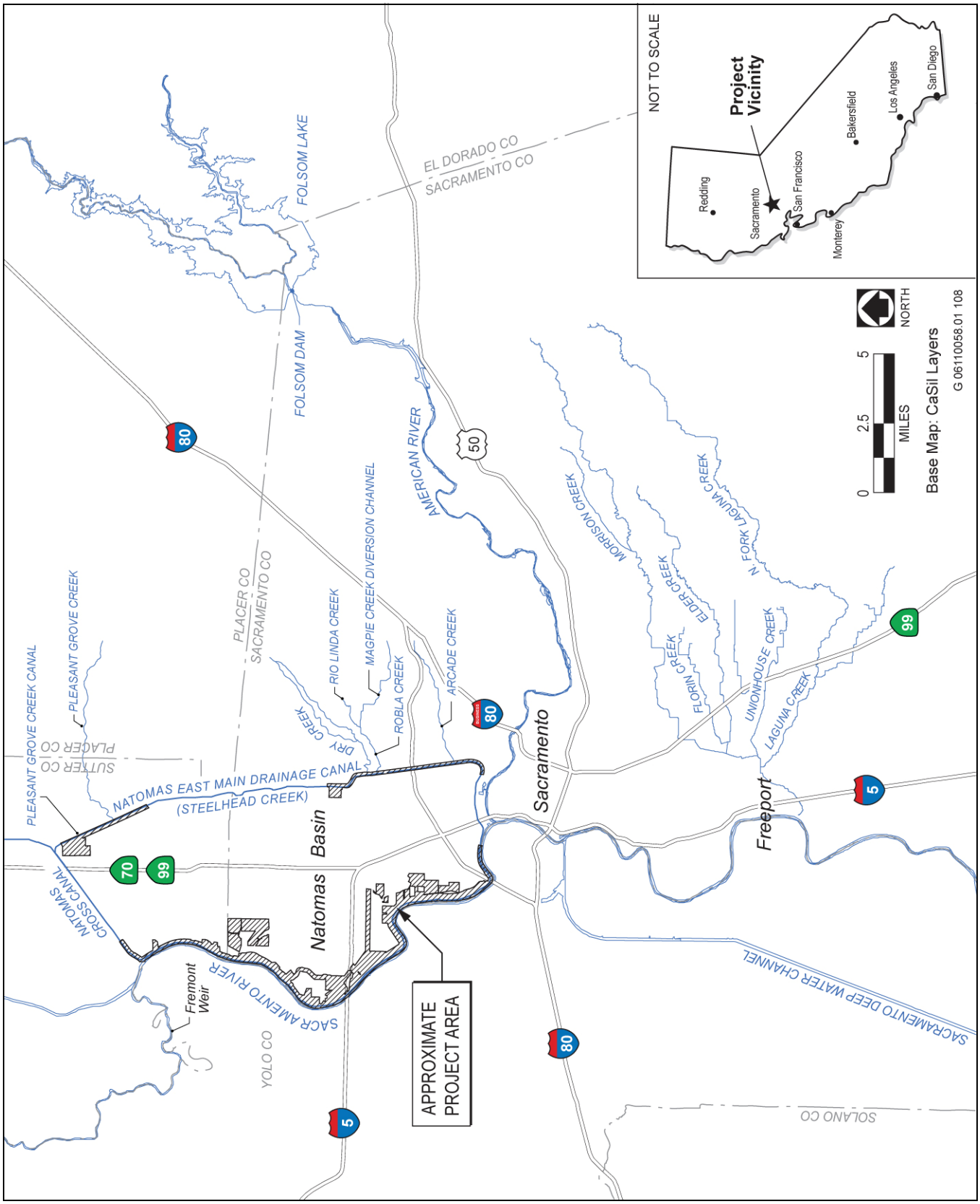
1 INTRODUCTION

1.1 PROJECT SUMMARY

The Sacramento Area Flood Control Agency's (SAFCA's) Natomas Levee Improvement Program (NLIP) entails improving the levee system that protects the 53,000-acre Natomas Basin in northern Sacramento County and southern Sutter County, California, including a portion of the city of Sacramento, to provide the Natomas Basin with at least a 100-year level of flood protection. The Natomas Basin is generally bounded by leveed reaches of the Natomas Cross Canal (NCC) on the north, the Sacramento River on the west, the American River on the south, and the Pleasant Grove Creek Canal (PGCC) and Natomas East Main Drainage Canal (NEMDC)/Steelhead Creek on the east (**Exhibit 1-1**). The Landside Improvements Project (Project) consists of the landside components of the larger NLIP. It includes improvements to correct levee freeboard deficiencies and seepage potential along the NCC south levee, the Sacramento River east levee, and the PGCC and NEMDC west levees, as well as related landscape and irrigation/drainage infrastructure improvements throughout the Natomas Basin.

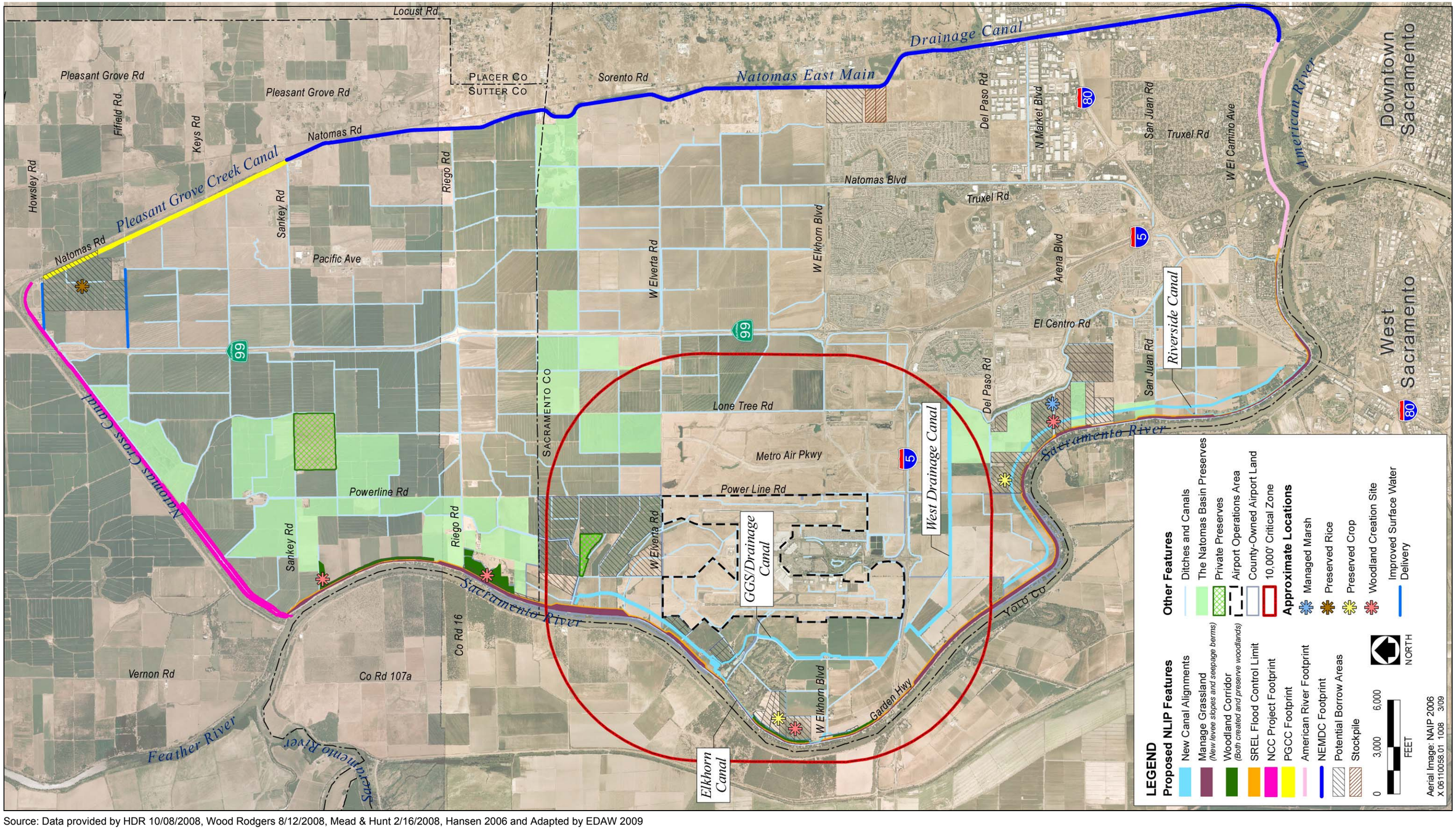
The Landside Improvements Project consists of four phases of construction, begun in 2007 and anticipated to be completed in 2011 (**Exhibit 1-2**). Each phase of the Project involves the establishment, enhancement, and preservation of various habitat components to compensate for unavoidable impacts on covered species and covered habitat and to conserve and protect waters of the United States and the state. Additional details regarding all Project impacts, including exhibits, can be reviewed in permit applications and wetland delineation reports prepared for the U.S. Fish and Wildlife Service (USFWS) (SAFCA 2008a), the California Department of Fish and Game (DFG) (SAFCA 2008b, 2008c), the U.S. Army Corps of Engineers (USACE) (SAFCA 2006, 2007, 2008d), and the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) (SAFCA 2008e). The *Mitigation and Monitoring Plan: SAFCA NLIP Phase 2 Landside Improvements Project* (Phase 2 MMP) (SAFCA 2008f) describes the construction and success establishment period of the canal improvement and habitat compensation sites for Phase 2 of the Project. Successive mitigation and monitoring plans (MMPs) will be prepared for each phase of the Project, as needed.

Contractors will be responsible for site maintenance and remediation activities for 3 years following construction, as specified in their contracts. SAFCA will responsible for success establishment period monitoring for each canal improvement and habitat compensation site, as described in the MMPs prepared for each phase of the Project. The land manager is responsible for general site maintenance inspections and monitoring, and general maintenance as described in each MMP, this LTMP, and the SSMPs.



Source: Adapted by EDAW 2009

Overview of the Natomas Basin **Exhibit 1-1**



Source: Data provided by HDR 10/08/2008, Wood Rodgers 8/12/2008, Mead & Hunt 2/16/2008, Hansen 2006 and Adapted by EDAW 2009

NLIP Landside Improvements Project Features **Exhibit 1-2**

1.2 PURPOSE AND ORGANIZATION OF THIS LONG-TERM MANAGEMENT PLAN

The purpose of the Draft NLIP Landside Improvements Project Programmatic Long-Term Management Plan (LTMP) is to ensure that the canal improvement and habitat compensation sites are managed, monitored, and maintained in perpetuity. This LTMP establishes objectives, priorities, and tasks to monitor, manage, maintain, and report on the waters of the United States and the state, covered species, and covered habitat on the canal improvement and habitat compensation sites. This LTMP is intended to be a binding and enforceable instrument, implemented by the various easements and management agreements covering the canal improvement and habitat compensation sites. This LTMP is intended to be a programmatic document for all phases of the Project, and will be refined as Project phases are developed.

One of the objectives of the Landside Improvements Project is to support and significantly contribute to the establishment of a valuable habitat reserve in the increasingly urbanized landscape of the Natomas Basin. The reserve is projected to occupy approximately 15,000 acres after the Natomas Basin Habitat Conservation Plan (Natomas Basin HCP) (City of Sacramento, Sutter County, and The Natomas Basin Conservancy 2003) and other proposed conservation programs are complete. Embedded in the Project is a conservation strategy that seeks to increase the total habitat acreage for special-status species and other woodland and marsh-dependent species; consolidate large areas of habitat, assisting in the expansion of The Natomas Basin Conservancy (TNBC) reserve blocks in the northwestern and southwestern regions of the Natomas Basin; increase connectivity between these core habitat areas and support movement of populations between habitat nodes through the establishment of aquatic and woodland corridors; increase beneficial edge effects between Swainson's hawk *(Buteo swainsoni)* nesting and foraging habitats and in general for a range of wildlife and ecological functions of native woodlands; and replace and improve the functions, services, and values of affected regulated habitats. Phases 2 through 4a of the Landside Improvements Project involve significant drainage and irrigation canal improvements and the creation, restoration, and preservation of several hundred acres of compensatory habitat that will contribute toward the achievement of this overall conservation strategy.

This LTMP is based on and incorporates Natomas Basin HCP guidelines and principles and meets the criteria of the multiagency LTMP template (USACE 2008). The main body of this LTMP describes the long-term management goals and objectives for the Project's overall conservation strategy. Site-specific management plans (SSMPs) that describe the management goals and guidelines for the canal improvements and for each habitat compensation site are appendices to this LTMP. As new canal improvement and habitat compensation sites are established during each phase of the Project, new SSMPs will be added as appendices to this LTMP.

1.3 CONSISTENCY WITH THE NATOMAS BASIN HABITAT CONSERVATION PLAN

The conservation strategy of SAFCA's Landside Improvements Project is intended to be consistent with and additive to the implementation of the Natomas Basin HCP and the Metro Air Park Habitat Conservation Plan (Metro Air Park HCP) and to meet a number of challenging requirements described in the HCPs.

The Natomas Basin HCP's Plan Operator, TNBC, conducts its business openly, maintains management practices that have been extensively outlined and reviewed (both biologically and legally) and placed into practice, and is covered for incidental take of Natomas Basin HCP-covered species under State and Federal permits. The advantages of linking the Landside Improvements Project's conservation strategy with the HCPs include:

- support for TNBC's structure and governance, which enhances TNBC's long-term viability;
- integrity of assured funding of the canal improvement and habitat compensation sites with reliance on the Natomas Basin HCP Financial Model, which is recalculated annually;
- use of proven habitat design and land management methodologies, developed for the Natomas Basin and included in the Natomas Basin HCP and the site-specific management plans for TNBC reserves, to increase the likelihood that SAFCA's conservation strategy produces the benefits intended;
- use of the Natomas Basin HCP's extensive biological monitoring dataset to create management practices for SAFCA's canal improvement and habitat compensation sites that will be consistent with management practices on the Natomas Basin HCP and Metro Air Park HCP mitigation lands;
- standardized management of SAFCA's canal improvement and habitat compensation sites and TNBC reserves, which maintains consistency with the Natomas Basin HCP; and
- reduction in the perceived risk that SAFCA's conservation strategy would compromise the Natomas Basin HCP's biological and legal commitments.

The introduction of a separate set of management, finance, legal, and biological criteria and requirements to the management of habitats in the Natomas Basin, particularly on the scale of a project the size and magnitude of the Landside Improvements Project, would impede successful implementation of the Natomas Basin HCP. By integrating and maintaining consistency among managed habitats in the Natomas Basin, SAFCA's conservation strategy amplifies the success of the Natomas Basin HCP and the recovery of special-status species in the Natomas Basin.

1.4 SUMMARY OF LANDOWNER AND LAND MANAGER RESPONSIBILITIES

The canal improvement and habitat compensation sites of the Project will be owned and managed by a variety of land management entities and protected and managed through a diverse array of mechanisms (**Table 1-1**).

Table 1-1
Summary of Protective and Management Mechanisms for Canal improvement and Habitat Compensation Sites

Habitat Type	Landowner and Management Entity				
	SAFCA	NCMWC	RD 1000	County	TNBC
GGS/Drainage Canal[1]					
Aquatic features on Airport land	DCE	Agreement	Agreement	Fee	
Aquatic features off Airport land	Fee	Agreement	DCE, Agreement		TPB, Agreement
Drainage canal uplands on Airport land	DCE	Agreement	Agreement	Fee	
Drainage canal uplands off Airport land	Fee	Agreement	DCE, Agreement		TPB, Agreement
Elkhorn and Riverside Irrigation Canals					
Aquatic features on Airport land	WFE	WFE		Fee	
Aquatic features off Airport land	Fee	WFE			
Irrigation canal uplands on Airport land	WFE	WFE, Agreement		Fee	
Irrigation canal uplands off Airport land	Fee	WFE, Agreement			
Giant garter snake rice habitat[2]	Fee	Agreement			CE, Agreement
Native perennial grasslands					
Flood damage reduction facilities on Airport land			FCE, Agreement	Fee	
Flood damage reduction facilities off Airport land	Fee		Fee, Agreement		
Landside woodlands[2]	Fee				CE, Agreement
Agricultural uplands Swainson's hawk foraging habitat[2]	Fee				CE, Agreement
Managed marsh[2]	Fee				CE, Agreement

Notes:
[1] U.S. Fish and Wildlife Service will be Third Party Beneficiary
[2] U.S. Fish and Wildlife Service and California Department of Fish and Game will be Third Party Beneficiaries
Agreement = long-term management or water delivery agreement with SAFCA
Airport = Sacramento International Airport
CE = conservation easement
County = Sacramento County
DCE = drainage control easement
FCE = flood control easement
Flood control facilities = levee slopes, seepage berms, and operation and maintenance corridor
GGS/Drainage Canal = new canal designed to provide drainage and associated giant garter snake habitat
NCMWC = Natomas Central Mutual Water Company
RD = reclamation district
SAFCA = Sacramento Area Flood Control Agency
TNBC = The Natomas Basin Conservancy
TPB = third party beneficiary
WFE = water facilities easement

Source: Data compiled by EDAW in 2009.

SAFCA and Sacramento County are the two primary landowners for the Project's canal improvement and habitat compensation sites. Three primary land managers have been identified for long-term management of the canal improvement and habitat compensation sites: TNBC, Reclamation District (RD) 1000, and the Natomas Central Mutual Water Company (NCMWC). The land managers, and the subsequent land managers upon transfer, shall implement this LTMP and the corresponding SSMPs, managing and monitoring the canal improvement and habitat compensation sites in perpetuity to preserve the habitat and conservation values in accordance with the respective easements, management agreements, and SSMPs, and with this LTMP. Long-term management tasks shall be funded through an endowment fund or other funding mechanism, as described in greater detail in Chapter 9 of this LTMP. The land managers shall be responsible for providing a monitoring report detailing the period covered, an itemized account of the management tasks, and total amount expended. Any subsequent grading or alteration of the site's hydrology or topography by the land manager or its representatives must be approved by the Resource Agencies, and all necessary permits must be obtained (see Chapter 5).

With respect to each of the canal improvement and habitat compensation sites, the land manager's responsibilities and duties shall include:

- conducting site operations and maintenance activities described in the respective SSMPs, such as vegetation management, following the construction contractor's maintenance period;
- ensuring a reliable water supply, and operating and maintaining water management infrastructure for the sites, as required by this LTMP and the respective SSMP;
- inspecting and maintaining access roads, fences, gates, and signage, and conducting other measures to prevent or reduce vandalism, dumping, theft, poaching, and trespass on the sites, as described in this LTMP;
- removing trash and other unwanted debris from the sites, as described in this LTMP;
- taking actions to manage disease concerns and pest issues, as described in this LTMP;
- managing and/or supervising habitat restoration and enhancement activities, and education and research activities on the site, as described in this LTMP;
- conducting general (i.e., non-success criteria monitoring) monitoring activities, as described in this LTMP and the respective SSMP;
- reviewing monitoring data and site maintenance inspection information, recommending remedial action as necessary, and coordinating with the resource agencies regarding any remedial action;

- arranging for any corrective action necessary to ensure that site conditions are maintained, as required by this LTMP and the respective SSMP; and,
- maintaining a log that serves as a record of all activities, correspondence, and determinations regarding site conditions.

1.5 SUMMARY OF CONSERVATION EASEMENTS AND MANAGEMENT AGREEMENTS

Management responsibilities and protection obligations will be held by SAFCA, RD 1000, NCMWC, TNBC, USFWS, DFG, Sacramento County, and Sacramento County Airport System (SCAS). **Table 1-1** summarizes these roles and mechanisms for the canal improvement and habitat compensation sites. A description of the land protection and management mechanisms follows.

1.5.1 FEE

Private lands needed to support the Project's habitat components will be acquired in fee title by SAFCA. In the case of lands acquired for flood damage reduction facilities (e.g., levee slopes, seepage berms, and operation and maintenance corridors), appropriate real estate rights will be conveyed to RD 1000, which will manage these lands under a long-term agreement with SAFCA. The agreement will specify RD 1000's obligations to maintain and manage the grasslands established on the levee slopes, seepage berms, and maintenance corridors in the areas occupied by these flood damage reduction facilities.

1.5.2 CONSERVATION EASEMENT

Private lands acquired in fee title by SAFCA for the creation and/or preservation of woodlands, rice fields, agricultural uplands, and managed marsh will be encumbered by conservation easements granted to TNBC to protect the habitat values of these lands in perpetuity. USFWS and DFG will be third-party beneficiaries to these easements. TNBC will manage these lands according to the terms of this LTMP, methods presented in the corresponding SSMPs, and using land management practices similar to those currently employed by TNBC in connection with the Natomas Basin HCP. Irrigation water for these lands will be provided by NCMWC under existing landowner/shareholder rights acquired by SAFCA and, where necessary, under long-term water purchase agreements with SAFCA. SAFCA will retain existing groundwater wells and pumping facilities and install new groundwater wells to ensure access to water supplies in the event of NCMWC water shortages or other service interruptions.

1.5.3 GIANT GARTER SNAKE/DRAINAGE CANAL EASEMENT

The purpose of the Giant Garter Snake (GGS)/Drainage Canal is to facilitate reconfiguration of the Airport West Ditch and abandonment of the off-site irrigation and drainage functions currently provided by the Airport West Ditch so as to reduce aviation safety hazards identified by the Federal Aviation Administration (FAA). The GGS/Drainage Canal is also expected to provide a continuous north-south aquatic habitat corridor between the North Drainage Canal (in the northern area of the Natomas Basin) and Fisherman's Lake (in the southern area of the Natomas Basin) to allow giant garter snake migration, habitat connectivity, gene pool exchange, and population resilience in the greater Natomas Basin.

Private lands acquired by SAFCA for the GGS/Drainage Canal and Airport lands used for the GGS/Drainage Canal will be encumbered by deed restrictions and by drainage canal easements granted by SAFCA to RD 1000 and by Sacramento County to SAFCA . These encumbrances will require that the lands be used exclusively for the GGS/Drainage Canal, that the aquatic and upland habitat functions and drainage and irrigation services associated with the canal be preserved in perpetuity, and that the lands be managed according to the terms of the LTMP and the respective SSMP. The easements on non-Sacramento International Airport (Airport) land will identify TNBC as a third-party beneficiary with the rights necessary to monitor and enforce the terms of the easements. TNBC will carry out its monitoring activities under a long-term agreement with SAFCA.

On Airport property, easements will identify USFWS as a third-party beneficiary. RD 1000 will manage these lands under a long-term operation and maintenance agreement with SAFCA, which will specify that management practices will adhere to the terms of the LTMP and the corresponding SSMP. These management practices will be based, in part, on the draft *Take, Avoidance, Minimization, and Mitigation Plan* developed by NCMWC in collaboration with USFWS and DFG. Water supplies for the new GGS/Drainage Canal will be provided by NCMWC under existing landowner/shareholder rights acquired by SAFCA and, where necessary, under long-term water purchase agreements with SAFCA. SAFCA will also install a groundwater well on its property adjacent to the Elkhorn Reservoir to ensure access to water supplies in the event of NCMWC water shortages or other service interruptions. Monitoring of the GGS/Drainage Canal and RD 1000 operations and maintenance on Airport property will be conducted by a third party entity under a long-term agreement with SAFCA.

1.5.4 FLOOD CONTROL EASEMENT

Airport lands that are needed to accommodate flood damage reduction facilities will be encumbered by flood control easements granted by Sacramento County to SAFCA and RD 1000. RD 1000 will manage the affected flood damage reduction facilities under a long-term management agreement with SAFCA. The agreement will specify the management practices to be employed, including the practices necessary to maintain and manage the native grasslands established on the levee slopes, seepage berms, and operation and maintenance corridors. These

practices will be consistent with the levee operation and maintenance requirements developed by USACE in connection with Sacramento River Flood Control Project.

1.5.5 WATER FACILITIES EASEMENT

Private and airport lands acquired or used by SAFCA for the new Elkhorn and Riverside Canals will be encumbered by water facilities easements granted by SAFCA to NCMWC and by Sacramento County to NCMWC. These easements will protect and preserve the use of these lands for these irrigation canals. NCMWC will manage the relocated canals as part of the integrated system of pumps and irrigation facilities in the Natomas Basin. The design of the new irrigation canals will call for the planting and establishment of native grasslands on the landside of the canal berms. NCMWC will manage these grasslands under a long-term management agreement with SAFCA.

The drainage canal, flood control, and water facilities easements encumbering airport lands will reserve to Sacramento County, as the owner of these lands, the rights necessary to protect the airport's aviation safety interests without compromising the interests protected by the easements. In case of conflicts between these interests, the easements will provide for conflict resolution through mediation.

2 GENERAL SETTING DESCRIPTION

2.1 SETTING AND LOCATION

The Landside Improvements Project is located in northern Sacramento County and southern Sutter County, encompassing the flood damage reduction structures surrounding the Natomas Basin (**Exhibit 1-1**). The project area includes the west levee of the PGCC, the south levee of the NCC, the east levee of the Sacramento River between the NCC and the American River, the north levee of the American River, the west levee of the NEMDC/Steelhead Creek, and adjacent lands (**Exhibit 2-1**). The project area encompasses approximately 9,095 acres and is located in Townships 9, 10, and 11 North, Ranges 3 and 4 East, on the Sacramento West, Taylor Monument, Gray's Bend, and Verona U.S. Geological Survey 7.5-minute quadrangles.

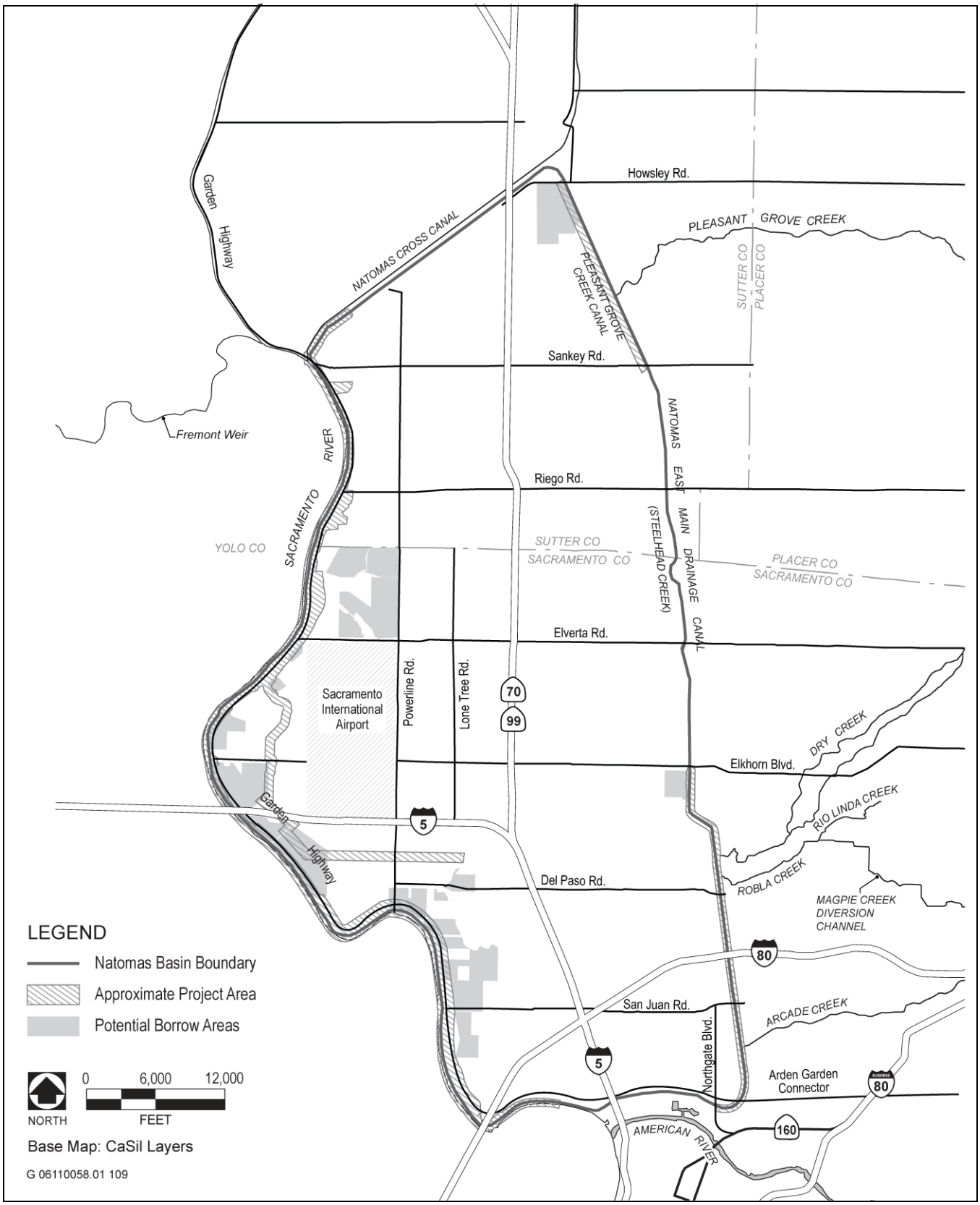
The Project consists of four phases. Phases 2 through 4a of the Project involve the establishment, enhancement, and preservation of various habitat components to compensate for unavoidable impacts on covered species and covered habitat and to conserve and protect waters of the United States and the state. All of the canal improvement and habitat compensation sites will be located within the project area.

2.2 HISTORICAL AND CURRENT LAND USES

Historically, agriculture and ranching were the primary industries in Sacramento and Sutter Counties. Regional ranching originated on the New Helvetia Rancho in the early 1840s. The Gold Rush precipitated growth in agriculture and ranching as ranchers and farmers realized handsome returns from supplying food and other goods to miners.

The infrastructure of RD 1000, completed in the 1920s, was created to reclaim flood-prone lands for productive use and promote agricultural development. The original features, many of which still remain, included levees and exterior drainage outlets, an interior drainage canal system, nine pumping plants, a series of levee and interior roads, and unpaved rights-of-way between the farm fields.

Today, much of the Natomas Basin includes rural portions of Sutter and Sacramento Counties and continues to support agriculture and scattered rural residences. The rural land use pattern transitions from agriculture to urbanization where Sacramento County encompasses the city of Sacramento. The Natomas Basin has four major transportation facilities—Interstate (I) 5, I-80, and State Route (SR) 99/70, and the airport. Airport lands account for slightly more than 10% of the total acreage in the Basin. Half of these lands lie outside of the Airport Operations Area and consist of "bufferlands" devoted to agricultural or open space use. Approximately 30% of the Natomas Basin consists of developed urban uses, which are located primarily south of Elkhorn Boulevard



Source: Adapted by EDAW 2009

Landside Improvement Project Area **Exhibit 2-1**

in the city of Sacramento. The remaining 60% of the Natomas Basin is in some form of developed agricultural or open space use in unincorporated areas of Sacramento and Sutter Counties, including 4,000 acres of habitats for special status species under the management of TNBC.

2.3 CULTURAL RESOURCES

The project area has supported significant prehistoric and historic uses, and numerous cultural resources have been identified during previous survey efforts, including agricultural infrastructure, transportation and reclamation features; and prehistoric occupation and burial sites. The Sacramento Valley climate and local environment provided ideal conditions for prehistoric occupation and exploitation, which is reflected in the numerous prehistoric mound sites (many of which have been at least partially disturbed by farming) that have been noted along the Sacramento and American Rivers. More recent historic use is visible primarily in the features of RD 1000, a district eligible for listing in the National Register of Historic Places. RD 1000 features consist of roads, levees, ditches, and other infrastructure that made large-scale agriculture in the project area feasible.

Prehistoric sites identified in the project area most frequently date to the last 3,000 years. There are only glimpses of antecedent cultures in the lower Sacramento Valley. Native Americans entered California at least 10,000 years ago, so it is assumed that earlier sites exist in the Sacramento Valley but that they are buried below flood deposits. As it is currently understood, the continuous record of human occupation begins during the Middle Period of the late Holocene, with cultural manifestations referred to as the Berkeley Pattern. The Berkeley Pattern is characterized by a greater reliance on acorns as a food source than was seen previously. Distinctive stone and shell artifacts also distinguish it from earlier and later cultural expressions. Most other sites in the region include characteristics of the Augustine Pattern (200–1,300 years Before Present [B.P.]), which was marked by increasing populations (the result of more intensive food procurement strategies), a marked change in burial practices, and increased trade activities. Intensive fishing, hunting, and gathering, complex exchange systems, and a wider variety in mortuary patterns are all hallmarks of this period. Mortars and pestles were more carefully shaped, and bow and arrow technology was present during this period. In addition, fishing implements became more common, trade increased, and cremation was used for some higher status individuals.

2.4 TOPOGRAPHY

The topography of the landside interior of the Natomas Basin is relatively flat, with 90% of elevations in the south-central part of the Natomas Basin 10 feet above mean sea level (msl). Elevations gently rise to more than 30 feet msl along the eastern edge of the Natomas Basin. Flood damage reduction levees, and the historic depositional ridge located near the banks of the Sacramento and American Rivers on which levees are constructed, provide the only significant topographic relief in the project area. The elevation for the various canal improvement and habitat compensation sites averages 10–20 feet above msl.

2.5 SURFACE WATER HYDROLOGY

The Natomas Basin lies adjacent to and east of the Sacramento River and north of the confluence of the Sacramento and American Rivers. The Sacramento River drainage basin, which covers approximately 26,150 square miles, includes the Feather River drainage basin (approximately 5,500 square miles), which is located just upstream of the Natomas Basin. The Fremont Weir, at the head of the Yolo Bypass, diverts a large percentage of Sacramento River flood flows before the water reaches the Natomas Basin. Consequently, the American and Feather Rivers supply approximately 90% of the flood flows approaching Sacramento from the north and the south. Several smaller drainages enter Natomas Basin on the east side where the foothills abut the basin geographic landform.

Hydrologic conditions throughout the Natomas Basin have been altered dramatically from natural conditions. Historically, much of the Natomas Basin was composed of shallow lakes, seasonal wetlands and freshwater tule marshes, valley oak woodland and riparian forest, and native grasslands. Winter and spring high flows in the Sacramento and American Rivers would frequently overtop the riverbanks and spill into the basin, raising lake and wetland water levels and depositing alluvial sediment and organic matter throughout the basin. Two large historic lakes were located at the lower, south end of the basin, connected by a short, sinuous slough (now referred to as Fisherman's Lake). Over the past 150 years, the entire Natomas Basin has been reclaimed, primarily for agricultural purposes, through a network of levees, drainage and irrigation canals, and pumping facilities. The hydrology of the Natomas Basin is now managed through this interconnected network. The direction of managed flow follows the natural gradient of the topography of the Natomas Basin. During the agricultural irrigation season, Sacramento River water is pumped into the Natomas Basin from the northwest (from the river directly or via diversions out of the NCC) and is then distributed throughout the Natomas Basin in irrigation and drainage canals. Stormwater or surplus irrigation tailwater is pumped back into the Sacramento River at the topographically low end of the Natomas Basin, generally on the southeast and southwest borders.

Reclamation of the Natomas Basin for agricultural development required construction of two major ditch and canal systems in the project area: an irrigation system owned and operated by NCMWC and a drainage system owned and operated by RD 1000. NCMWC pumps water into the Natomas Basin to provide irrigation water to its shareholders for agricultural use in the Natomas Basin. During winter (October through April), drainage is primarily rainfall runoff and a smaller contribution of seepage inflow from seasonally high groundwater; during summer (May through September), drainage water from agricultural fields is typically recirculated for irrigation. Because the Natomas Basin is a closed basin surrounded by levees, all excess drainage in the Natomas Basin must be pumped out. In general, irrigation water for the Natomas Basin is pumped from the Sacramento River and NCC into two primary highline canals (Elkhorn and Riverside Canals) which distribute water to numerous lateral canals supplying surface water takeouts for crop fields and orchards. Tailwater from irrigated crops is returned to

a network of drainage channels via RD 1000's interior drainage system and then recirculated and blended with fresh water diverted from several pump stations operated by NCMWC.

2.6 GROUNDWATER HYDROLOGY

Groundwater in the Natomas Basin is part of the North American Subbasin. Major recharge to the local aquifer system generally occurs along river, slough, and stream channels where extensive sand and gravel deposits exist, particularly in the American River and Sacramento River channels (SGA 2002). Where surface water is hydrologically disconnected from groundwater, it percolates through the unsaturated zone beneath the streambed to the groundwater and is a function of the underlying aquifer materials and water levels in the channel. Some evidence suggests that this process occurs in parts of the Sacramento River in northern Sacramento County (SGA 2003). In the dry season, groundwater levels remain relatively high throughout the Natomas Basin, generally 10–20 feet below msl (approximately 20–40 feet below average ground level). However, a complex mosaic of relatively shallow groundwater is common in areas near major, above-grade irrigation canals, in the vicinity of Fisherman's Lake and the Sacramento River, and under fields with a perched water table above impermeable substrates (hardpans and dense claypans). Groundwater extraction has created an extensive cone of depression in the southern section of the Natomas Basin (SGA 2006:12–14). Natural sloughs, fields in the lower depression of the basin, and portions of some canals that have been excavated below natural grade may be in direct contact with shallow groundwater, particularly in the wet season and during higher stages in the Sacramento River and NCC.

2.7 WATER QUALITY

Because most of the Natomas Basin is used for agriculture, the primary pollutants of concern are fertilizers, pesticides, and herbicides associated with agricultural production, and anaerobic water quality conditions from high biochemical oxygen demand and standing water in the warm season. However, multiple regulations exist to manage these pollutants. Expanding urban development, particularly in the southern portion of the Natomas Basin, has introduced typical stormwater pollutants, such as phosphates and heavy metals. An area between the airport and the Bear River to the north has high levels of total dissolved solids, chloride, sodium, bicarbonate, manganese, and arsenic (DWR 2006). Anaerobic water quality conditions are particularly acute in Fisherman's Lake and the lower end of West Drainage Canal during the months of September and October when crop irrigation has subsided, and fresh river water ceases to replenish standing water at the low end of the basin drainage system.

2.8 GEOLOGY AND SOILS

The project area lies largely in the Sacramento Valley portion of the Great Valley Geomorphic Province and the transition between the valley and the Sierra Nevada foothills. The Great Valley is composed of thousands of feet of sedimentary deposits that have undergone periods of subsidence and uplift over millions of years. During the

Jurassic and Cretaceous Periods of the Mesozoic Era, the Great Valley existed in the form of an ancient inland sea connected to the Pacific Ocean. By the end of the Mesozoic, the northern portion of the Great Valley began to fill with sediment as tectonic forces caused uplift of the Natomas Basin. By the time of the Miocene Epoch, approximately 24 million years ago, sediments deposited in the Sacramento Valley were mostly of terrestrial origin.

Most of the surface of the Great Valley is covered with Recent (i.e., Holocene, 10,000 years B.P. to present day) and Pleistocene (i.e., 10,000–1,800,000 years B.P.) alluvium. This alluvium is composed of sediments from the Sierra Nevada mountain range on the east and the Interior Coast Ranges on the west that were carried by water and deposited on the valley floor. Siltstone, claystone, and sandstone are the primary types of sedimentary deposits.

Soils immediately adjacent to the Sacramento River are dominated by deep, nearly level, well-drained silty, loamy and sandy soils. The natural drainage is good, and the soils have slow to moderate subsoil permeability. An alluvial ridge of high ground on the west and south rim of the basin near the banks of the Sacramento and American Rivers consists of well-drained alluvial loam soils where most of the orchards and alfalfa have traditionally been established. The river terraces consist of very deep, well-drained alluvial soils (NRCS 1988, 1993).

According to the Soil Survey of Sacramento County (NRCS 1993) and the Soil Survey of Sutter County (NRCS 1988), the soils in the project area belong to the Capay, Clear Lake, Columbia, Cosumnes, Egbert, Galt, Jacktone, Laugenour, Marcum, Nueva, Sailboat, San Joaquin, Shanghai, Uvas, and Valpac soil series. These soil types range from moderately well-drained soils near the river and natural sloughs to poorly drained basin-deposited and historic lake soils. Several soils mapped in the study area are listed as hydric on the National Hydric Soils List. However, because the Natomas Basin and its historic hydrology have been modified extensively by levees, canals, and drainage systems, the soils in the project area are subject to an “atypical situation,” as described in the 1987 wetland delineation manual (Environmental Laboratory 1987). The soils in the Natomas Basin formed under conditions that were subject to frequent, prolonged flood events and associated shallow groundwater, as documented by the map unit soil series descriptions. However, the current hydrology of the Natomas Basin is not the condition under which soil formation took place. Descriptions and exhibits of soil map units that occur in the project area are included in wetland delineation reports prepared for the Project (SAFCA 2006, 2007).

2.9 VEGETATION AND SENSITIVE HABITATS

The dominant land use in the Natomas Basin is agriculture, including cropland and orchards. The primary crops produced in the Natomas Basin are rice, corn, grain, alfalfa, and tomatoes. Only small fragments of native habitat persist in the Natomas Basin. Some of these habitats are considered sensitive by DFG and are identified as natural communities that are “rare and worthy of consideration,” according to the California Natural Diversity Database. These sensitive communities, such as valley oak woodland, provide essential habitat to special-status species that are often restricted in distribution or decreasing throughout their range. Some woodland patches in the project

area are categorized as Great Valley cottonwood riparian forest, which is a natural community documented in the California Natural Diversity Database. Other native habitats, including mostly small patches of valley oak woodland, scrub, and wetland habitats dominated by native species, are scattered throughout the Natomas Basin. Most native habitats occur in bands and small groves relatively close to the Sacramento River, remnants of natural sloughs, or adjacent to other features that support surface water. Habitats in the project area are depicted in **Exhibits 2-2a through 2-2d**.

Sensitive habitats, such as seasonal and perennial wetlands, valley oak woodland, and riparian vegetation, and some agricultural features such as crops for Swainson's hawk foraging, and rice and canals for giant garter snake (*Thamnophis gigas*), are of particular value to special-status species. The irrigation/drainage canals and ditches, as well as the freshwater marshes, seasonal wetlands, and portions of the rice fields in the project area, are considered waters of the United States and are subject to regulation under Section 404 of the Clean Water Act. They also are anticipated to qualify as waters of the state and be subject to regulation under the Porter-Cologne Water Quality Control Act. In addition, waterways and associated riparian habitats are likely subject to regulation under Section 1600 et seq. of the California Fish and Game Code.

Of particular concern are irrigation and drainage canals and ditches that provide movement corridors for giant garter snake and connectivity between managed wetlands created for giant garter snake, and rice fields that provide giant garter snake foraging and rearing habitat, agricultural fields and grasslands that provide Swainson's hawk foraging habitat, and woodlands that provide potential Swainson's hawk nesting and perching habitat. Because of the large acreage of rice and created, managed marsh in the northwestern Natomas Basin (much of which is suitable for giant garter snake occupation), canals and ditches that connect rice and marsh habitat sites can provide regionally important corridors for giant garter snake movement and genetic diversity between Basin giant garter snake population centers. Swainson's hawks nest in riparian forest and valley oak woodlands along the waterside of the Sacramento River levees and forage in grassland and non-rice cropland in the project area. Small, typically isolated patches of elderberry shrubs, which are the obligate habitat for the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), occur in the Natomas Basin and along the Sacramento River east levee.

The lower Sacramento River and its tributaries, including the NCC and PGCC, are in designated critical habitat for the Sacramento River winter-run Chinook salmon evolutionarily significant unit (ESU) (*Oncorhynchus tshawytscha*), Central Valley spring-run Chinook salmon ESU (*Oncorhynchus tshawytscha*), and Central Valley steelhead ESU (*Oncorhynchus mykiss*). The project area is not in designated critical habitat for any other special-status species.

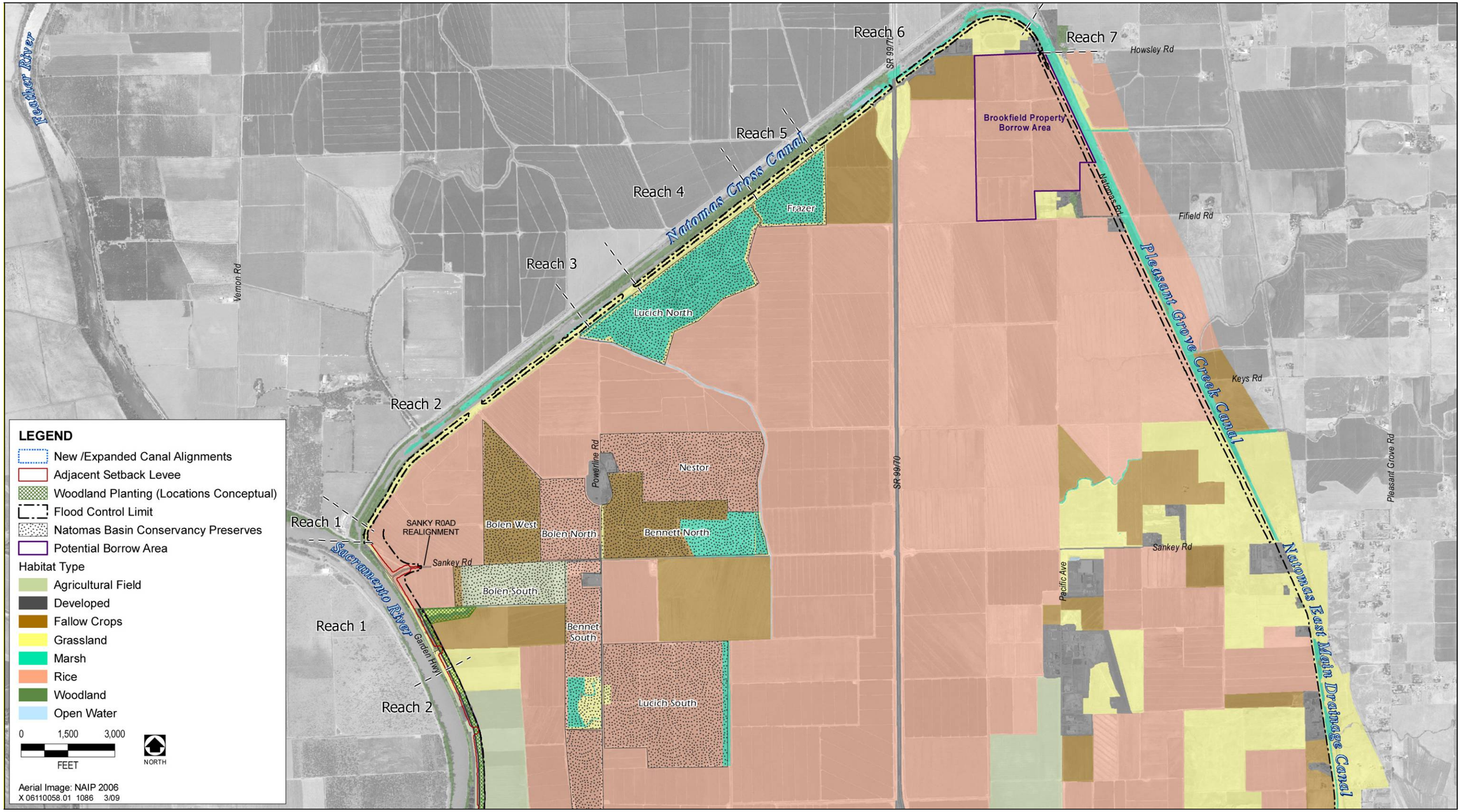
2.10 SPECIAL-STATUS SPECIES

Several special-status wildlife species that are federally or state-listed as threatened or endangered have the potential to occur in the project area:

- giant garter snake, which is Federally and State-listed as threatened;
- Swainson's hawk, which is State-listed as threatened;
- valley elderberry longhorn beetle, which is Federally listed as threatened; and
- four Sacramento River fish species: two Federally and State-listed as endangered (Sacramento winter-run Chinook salmon ESU) and threatened (Central Valley spring-run Chinook salmon ESU) and two State listed as threatened (Central Valley steelhead ESU and green sturgeon [*Acipenser medirostris*]).

A number of wildlife species listed as California species of special concern also have the potential to occur in the project area, including northwestern pond turtle (*Actinemys marmorata marmorata*), western burrowing owl (*Athene cunicularia*), tricolored blackbird (*Agelaius tricolor*), loggerhead shrike *(Lanius ludovidianus)*, white-faced ibis *(Plegadis chihi)*, several species of raptors, and Central Valley fall-/late fall–run Chinook salmon *(Oncorhynchus tshawytscha*).

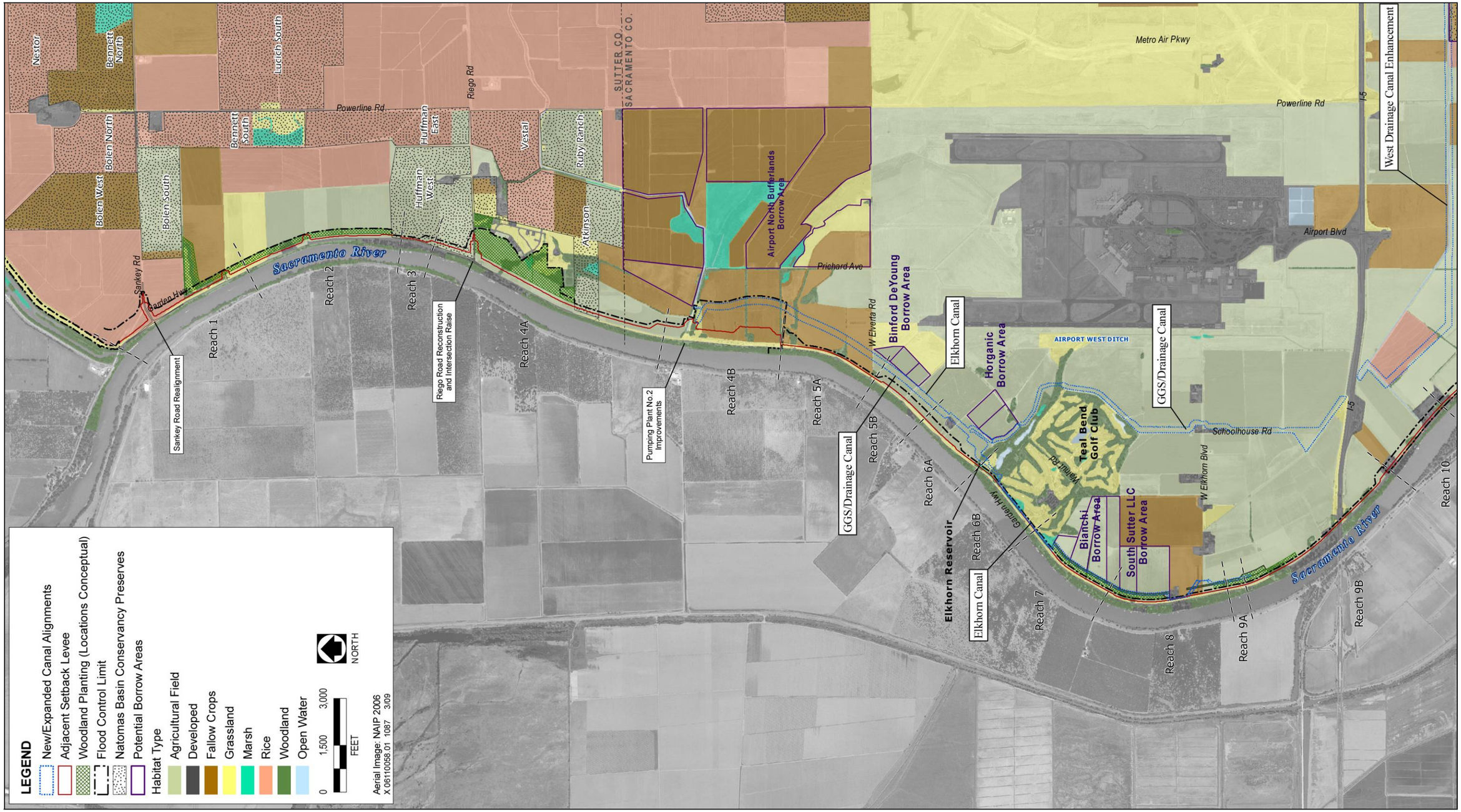
Three special-status plant species were determined to have potential to occur in the Phase 2 project area: rose mallow (*Hibiscus lasiocarpus*), Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), and Sanford's arrowhead (*Sagittaria sanfordii*). Focused surveys did not detect these plant species in the Phase 2 project area; surveys are either underway or planned for the Phase 3 and Phase 4a project areas.



Source: Data provided by Wood Rodgers NCC - 7/24/2008; PGCC - 5/27/2008, HDR 2/16/2009, Jones & Stokes 2007 and Adapted by EDAW 2009

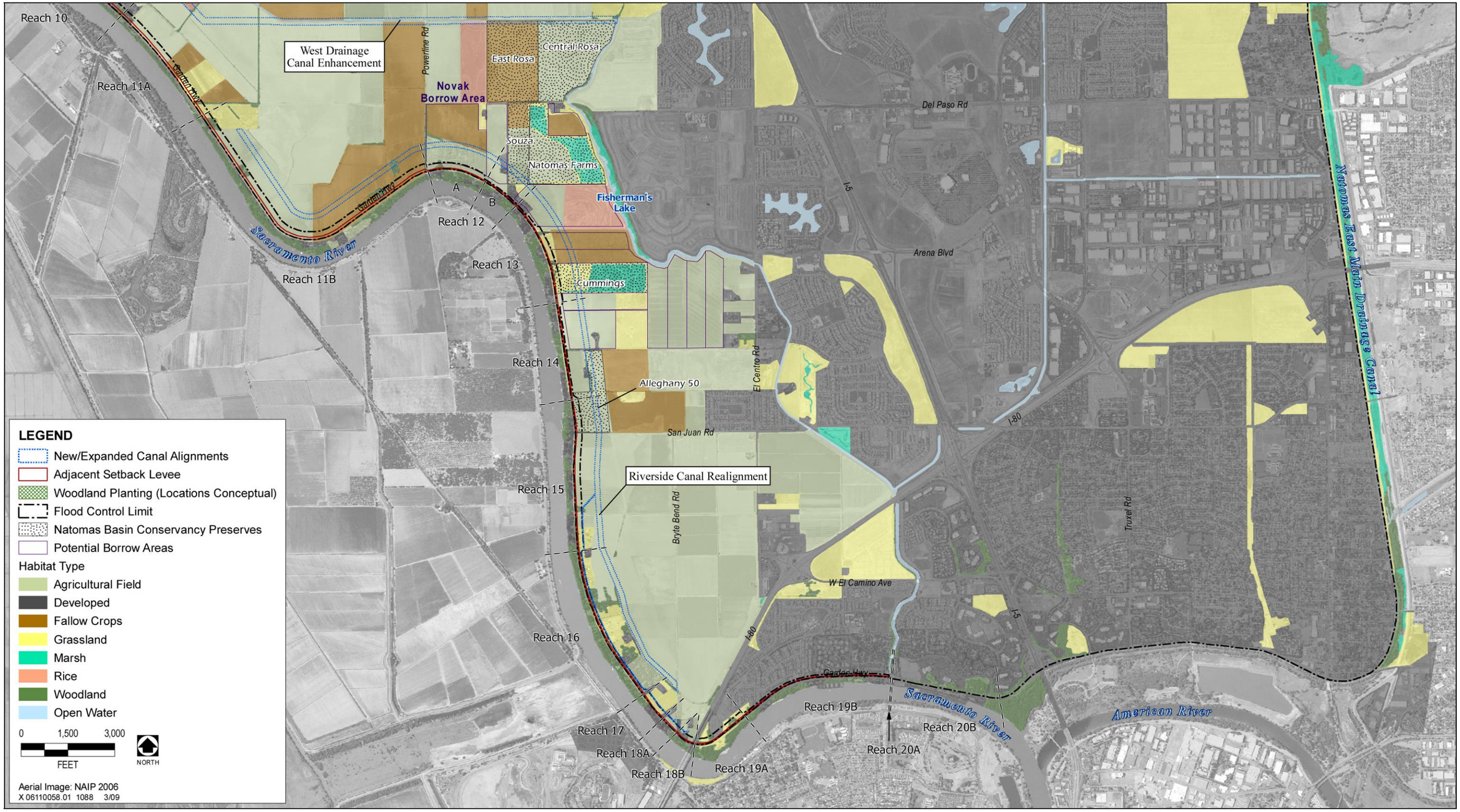
Overview of Habitat Types and Major Project Features (1 of 4)

Exhibit 2-2a



Source: Data provided by Wood Rodgers NCC - 7/24/2008; PGCC - 5/27/2008, HDR 2/16/2009, Jones & Stokes 2007 and Adapted by EDAW 2009

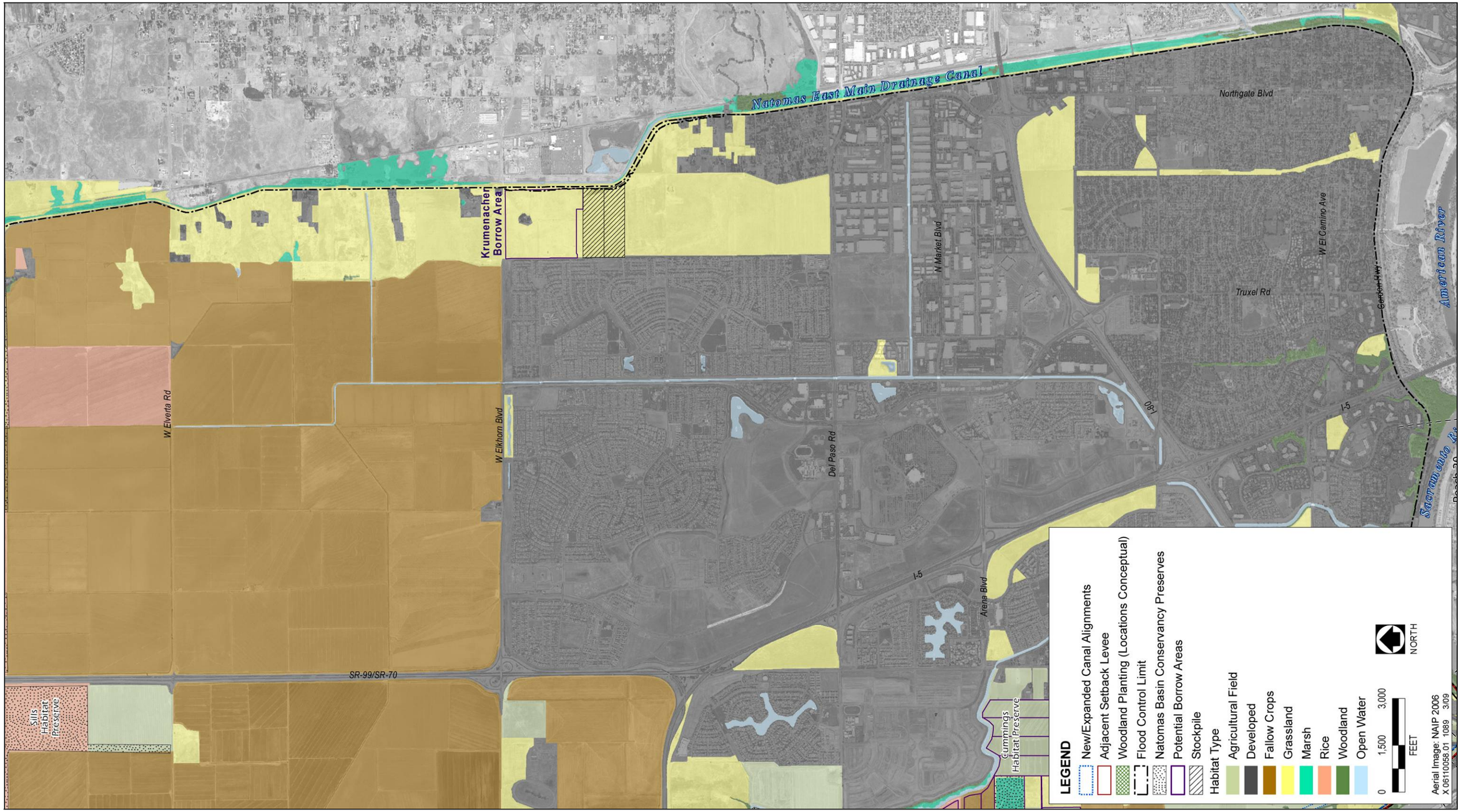
Overview of Habitat Types and Major Project Features (2 of 4) **Exhibit 2-2b**



Source: Data provided by Wood Rodgers NCC - 7/24/2008; PGCC - 5/27/2008, HDR 2/16/2009, Jones & Stokes 2007 and Adapted by EDAW 2009

Overview of Habitat Types and Major Project Features (3 of 4)

Exhibits 2-2c



Source: Data provided by Wood Rodgers NCC - 7/24/2008; PGCC - 5/27/2008, HDR 2/16/2009, Jones & Stokes 2007 and Adapted by EDAW 2009

Overview of Habitat Types and Major Project Features (4 of 4)

Exhibit 2-2d

3 CANAL IMPROVEMENT AND HABITAT COMPENSATION SITES SUMMARY

3.1 SUMMARY OF CANAL IMPROVEMENT AND HABITAT COMPENSATORY COMPONENTS OF THE LANDSIDE IMPROVEMENTS PROJECT

3.1.1 PHASE 2 PROJECT

Phase 2 of the Project was initiated in 2008 and will be completed in 2009, and consists of:

- improvements along the 5.3-mile-long NCC south levee and the Sacramento River east levee from the NCC south levee to 2,000 feet south of the North Drainage Canal (Reaches 1–4B) including creation of approximately 280 acres of native perennial grasslands on the newly constructed levee slopes, seepage berms, and access rights-of-way;
- relocation of the existing Elkhorn Main Irrigation Canal (Elkhorn Canal) including creation of approximately 16.5 acres of aquatic habitat and 17.5 acres of associated upland habitat;
- construction of the upper GGS/Drainage Canal between the North Drainage Canal and Elkhorn Reservoir including creation of approximately 12.5 acres of aquatic habitat and 10.5 acres of associated upland habitat; and
- associated activities, including the establishment and preservation of several hundred acres of compensatory habitat at the following sites (**see Exhibits 2-1a through 2-1f in the Phase 2 MMP [SAFCA 2008f]):**
    - preservation of up to 175 acres of rice fields at the Brookfield site;
    - creation of approximately 43.5 acres and preservation of 18 acres of landside oak woodlands; and
    - preservation of approximately 80 acres of agricultural uplands.

3.1.2 PHASE 3 PROJECT

Phase 3 of the Project was initiated in 2008 and will be completed in 2010, and consists of:

- improvements along the Sacramento River east levee south of the limits of the Phase 2 improvements to south of I-5 including levee improvements in Reaches 5A–9B and creation of approximately 125 acres of native perennial grasslands on the newly constructed levee slopes, seepage berms, and access rights-of-way;
- vegetation clearance along the Sacramento River east levee south of I-5 (Reaches 10–12A);

- improvements along the Pleasant Grove Creek Canal west levee and along the NEMDC west levee between Elkhorn Boulevard and Northgate Boulevard including creation of approximately 80 acres of native perennial grasslands on the newly constructed levee slopes, seepage berms, and access rights-of-way;
- relocation of the existing Elkhorn Canal downstream of the Elkhorn Reservoir including creation of approximately 4 acres of aquatic habitat and 7 acres of associated upland habitat in the relocated Elkhorn Canal;
- construction of the GGS/Drainage Canal between the Elkhorn Reservoir and the West Drainage Canal including creation of approximately 18 acres of aquatic habitat, 7.5 acres of a low bench supporting perennial grassland parallel to the canal, and 15 additional acres of associated upland habitat;
- replacement of the Airport West Ditch by rerouting irrigation and most drainage inflow/outflow via the new GGS/Drainage Canal;
- reconstruction of the RD 1000 Pumping Plant No. 2; and
- associated activities, including establishment and preservation of the following compensatory habitats:
  - creation of approximately 40 acres and preservation of 2.5 acres of landside woodlands; and
  - preservation of approximately 60 acres of agricultural uplands.

3.1.3 PHASE 4A PROJECT

Phase 4a of the Project will be initiated in 2009 and completed in 2011, and consists of:

- improvements along the Sacramento River east and south of the limits of the Phase 3 improvements to the junction with the American River north levee (Reaches 10–20) including creation of at least 265 acres of native perennial grasslands on the newly constructed levee slopes, seepage berms, and access rights-of-way;
- improvements to the American River north levee between Gateway Oaks Drive and Northgate Boulevard and improvements to the NEMDC west levee between Sankey Road and Elkhorn Boulevard including creation of at least TBD acres of native perennial grasslands on the newly constructed levee slopes, seepage berms, and access rights-of-way;
- relocation and westward extension of the existing Riverside Canal including creation of approximately 15.5 acres of aquatic habitat and 25 acres of associated upland habitat in the relocated Riverside Canal;

- improvements to the West Drainage Canal from its northern terminus near I-5 to Fisherman's Lake including enhancement of TBD linear feet of aquatic habitat and associated upland habitat;
- improvement of water quality in Fisherman's Lake and lower West Drainage Canal by modifying management and circulation of river freshwater inflow to supply existing irrigation use; and
- associated activities, including the establishment and preservation of compensatory habitat in the vicinity of Fisherman's Lake including:
  - creation of at least 100 acres of managed marsh along the central portion of Fisherman's Lake;
  - construction of a tule bench marsh along the West Drainage Canal on TNBC land;
  - creation of approximately 40 acres and preservation of 8 acres of landside woodlands; and
  - preservation of approximately 100 acres of agricultural uplands.

3.2 OVERVIEW OF CANAL IMPROVEMENT AND COMPENSATORY HABITAT COMPONENTS OF THE LANDSIDE IMPROVEMENTS PROJECT

As shown in **Exhibits 2-2a through 2-2d**, the Project includes significant levee and related drainage and irrigation canal improvements and the creation, enhancement, and preservation of hundreds of acres of compensatory habitat. The following is an estimate of the habitat types and acreages that will be created or preserved in connection with these efforts:

- approximately 65 acres of aquatic canal habitat, 10 acres of associated marsh, and 75 acres of associated uplands;
- up to 175 acres of rice fields;
- approximately 840 acres of native perennial grasslands established on the flood damage reduction footprint;
- at least 140 acres of created and preserved landside woodlands;
- approximately 150 acres of agricultural uplands; and
- more than 100 acres of created managed marsh.

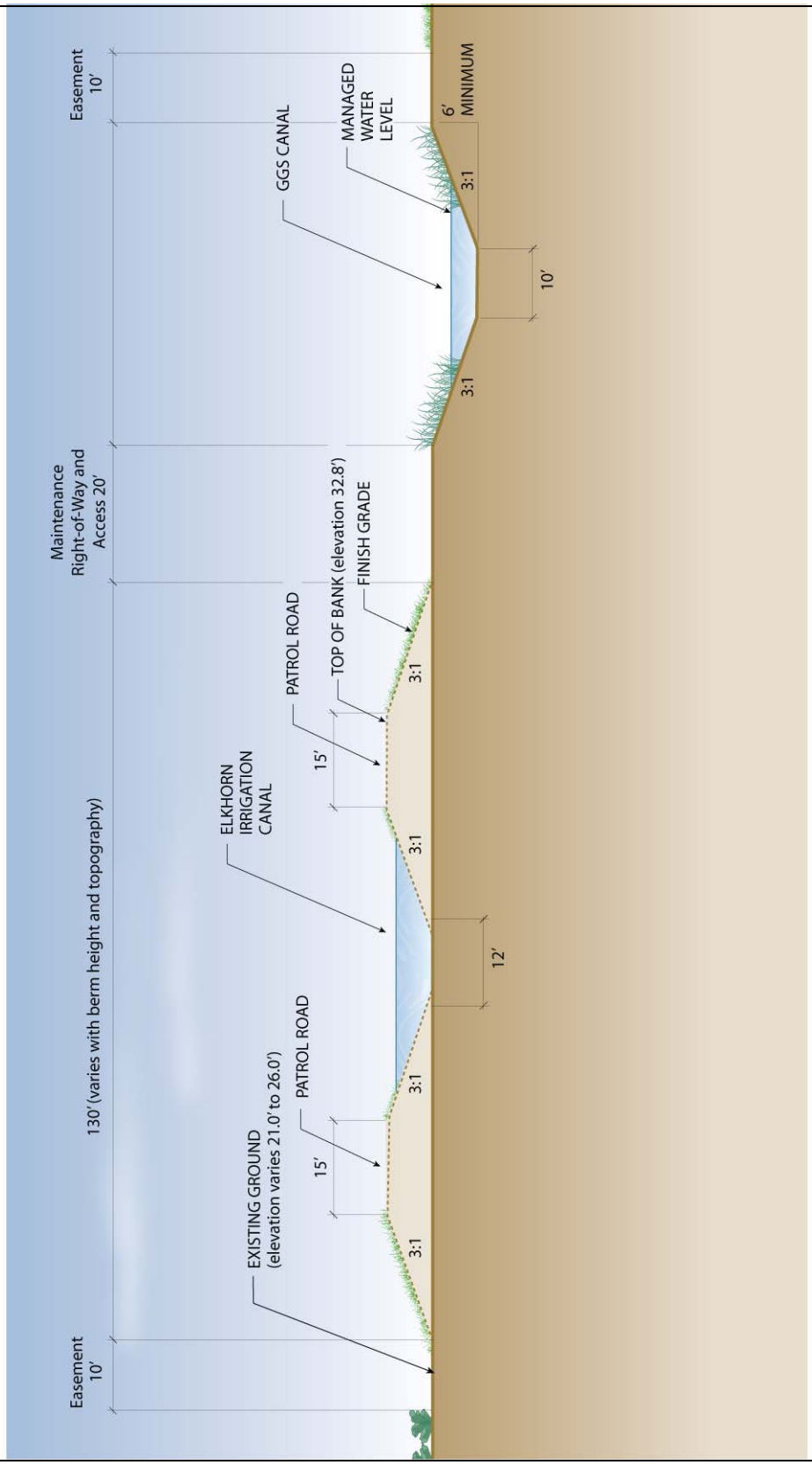
Each of these habitat types is summarized below. The Natomas Basin HCP provides guidelines for the management of rice fields, agricultural uplands, and managed marsh; these, too, are summarized below under the respective compensatory habitat component.

3.2.1 GIANT GARTER SNAKE/DRAINAGE CANAL

The construction of the GGS/Drainage Canal will occur over two Project phases. In Phase 2, the upper GGS/Drainage Canal will be constructed between the North Drainage Canal and the Elkhorn Reservoir; and in Phase 3, the lower GGS/Drainage Canal will be constructed between the Elkhorn Reservoir and the West Drainage Canal. The purpose of the GGS/Drainage Canal is to facilitate reconfiguration of the Airport West Ditch and abandonment of the off-site irrigation and drainage functions currently provided by the Airport West Ditch so as to reduce aviation safety hazards identified by the FAA. The GGS/Drainage Canal is also expected to provide a continuous north-south aquatic habitat corridor between the North Drainage Canal (in the northern area of the Natomas Basin) and Fisherman's Lake (in the southern area of the Natomas Basin) to allow giant garter snake migration, habitat connectivity, gene pool exchange, and population resilience in the greater Natomas Basin.

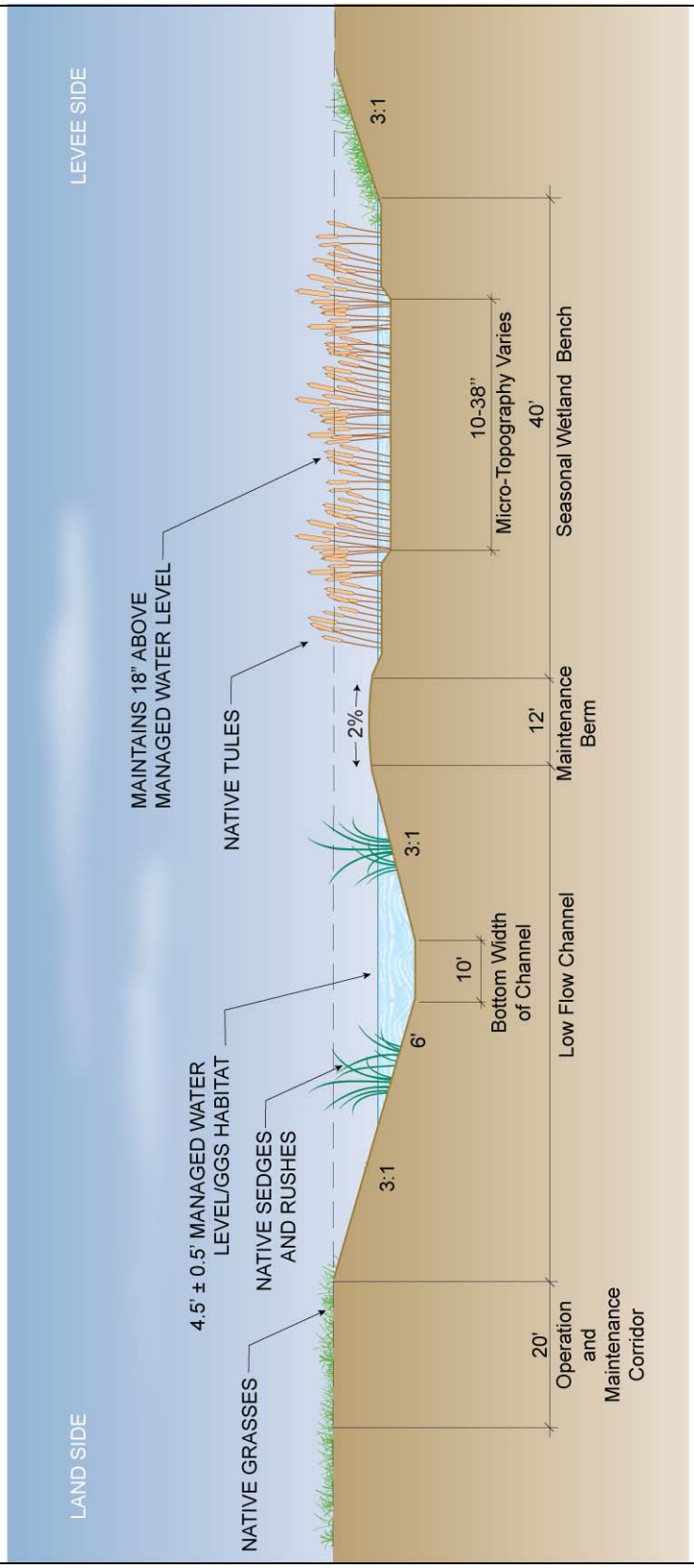
Most existing canals in the Natomas Basin have typically steep, horizontal-to-vertical (H:V) side slopes of 2H:1V to 1H:1V. The GGS/Drainage Canal will be constructed with 3H:1V bank slopes, thus requiring less frequent dredging, bank repair, and bank disturbance (**Exhibits 3-1 and 3-2**). The gentle side slopes will facilitate the shoreline growth of freshwater marsh plants, including native sedges and rushes that will provide habitat for giant garter snake. Upper canal banks will be planted with native perennial grasses to provide better cover for giant garter snake, discourage weeds, raise cutting height above the ground, and reduce the frequency of disturbance to bank vegetation. Portions (approximately7-10 acres) of the lower GGS/Drainage Canal south of Elkhorn Reservoir include a 15- to 50-foot wide upland bench, approximately two feet above the managed summer water level, in the adjacent canal. The bench will be planted with perennial grasses and sedges or a hay crop, and will be graded flat to allow for periodic irrigation as needed. SAFCA will purchase specialized equipment and vehicles, such as a large hydraulic-arm excavator, to increase the efficiency and ease of canal maintenance and reduce or eliminate the need to drag a bucket, scraper, or V-plow on canal banks. Giant garter snake hibernacula (rock piles keyed into the bank) approximately 50 feet long will be placed along the canal bank slopes approximately every 500 feet.

The length of the entire GGS/Drainage Canal, including the portion of the improved West Drainage Canal, is approximately 44,000 linear feet (more than 8 miles). The canal system is designed to have precise control of water levels and through-canal flow rates, and it can be adjusted under an adaptive management approach. A series of water control structures will be constructed along the length of the canal to maintain consistent water levels in the low-flow channel of the canal during the snake's active season (May 1st through October 1st). Water



Source: Data provided by Mead & Hunt and Adapted by EDAW in 2009

Typical Cross Section of the Upper GGS/Drainage Canal & Elkhorn Irrigation Canals **Exhibit 3-1**



Source: Data provided by Mead & Hunt and Adapted by EDAW in 2009

Typical Cross Section of the Lower GGS/Drainage Canal **Exhibit 3-2**

will be provided by NCMWC's irrigation system as needed; with a land right to purchase water from NCMWC, SAFCA will secure a long-term contractual agreement with NCMWC to ensure a reliable water supply for the GGS/Drainage Canal. The low-flow channel will have a top width of approximately 50 feet, gentle 3H:1V bank slopes, and a water depth of approximately 4–5 feet. It will be part of the RD 1000 drainage system.

The GGS/Drainage Canal has been designed so that management of the canal will result in fewer disturbances to giant garter snake habitat than existing standard canal management practices in the Natomas Basin. A typical RD 1000 canal has a narrow channel and right-of-way and steep side slopes. Some canals have a maintenance road on one side only. The steep side slopes are prone to erosion and earth slope failures, which fill the canal bottom with sediment. Sedimentation exacerbates the maintenance problem of aquatic weed invasions, and accretion of sediment (which is costly to remove) reduces the capacity of the canals to accommodate storm flow, resulting in the need for frequent disturbance by heavy equipment of vegetation and soil on canal banks.

The Natomas Basin HCP notes that the infrastructure of rice fields, specifically the water conveyance system that supports the fields (including delivery canals, ditches, drains, and their associated levees) and other associated features, such as tailwater marshes, is important to the survival of the giant garter snake in the Natomas Basin because the rice fields and their supporting infrastructure "mimic to some extent the area's original marsh and upland habitats." Because the GGS/Drainage Canal will extend through areas where rice cultivation is largely absent, the shoreline and lower bank of the GGS/Drainage Canal (including the improved West Drainage Canal) will be planted and managed to promote native sedges, rushes, tule and other emergent vegetation as suitable cover and foraging habitat for giant garter snake. However, management of the canal will also require periodic removal of noxious aquatic weeds that obstruct the flow of water. TNBC and RD 1000 currently conduct extensive measures to control aquatic weeds.

A secure water supply will ensure that water of a suitable quality is present and flowing at low velocity in the canal during the active season of the giant garter snake. The water surface will be managed within a range of approximately 6-12 inches to provide consistent cover from predators along the marsh fringe of canal banks. Input of supplemental canal water for the upper GGS/Drainage Canal will begin at a diversion point at Elkhorn Reservoir and flow north to an outlet on the North Drainage Canal. Input of canal water for the lower GGS/Drainage Canal will also begin at a diversion point at Elkhorn Reservoir and flow south to the West Drainage Canal just north of I-5. Other points of secondary supplemental inflow may occur at other locations.

3.2.2 ELKHORN AND RIVERSIDE MAIN IRRIGATION CANALS

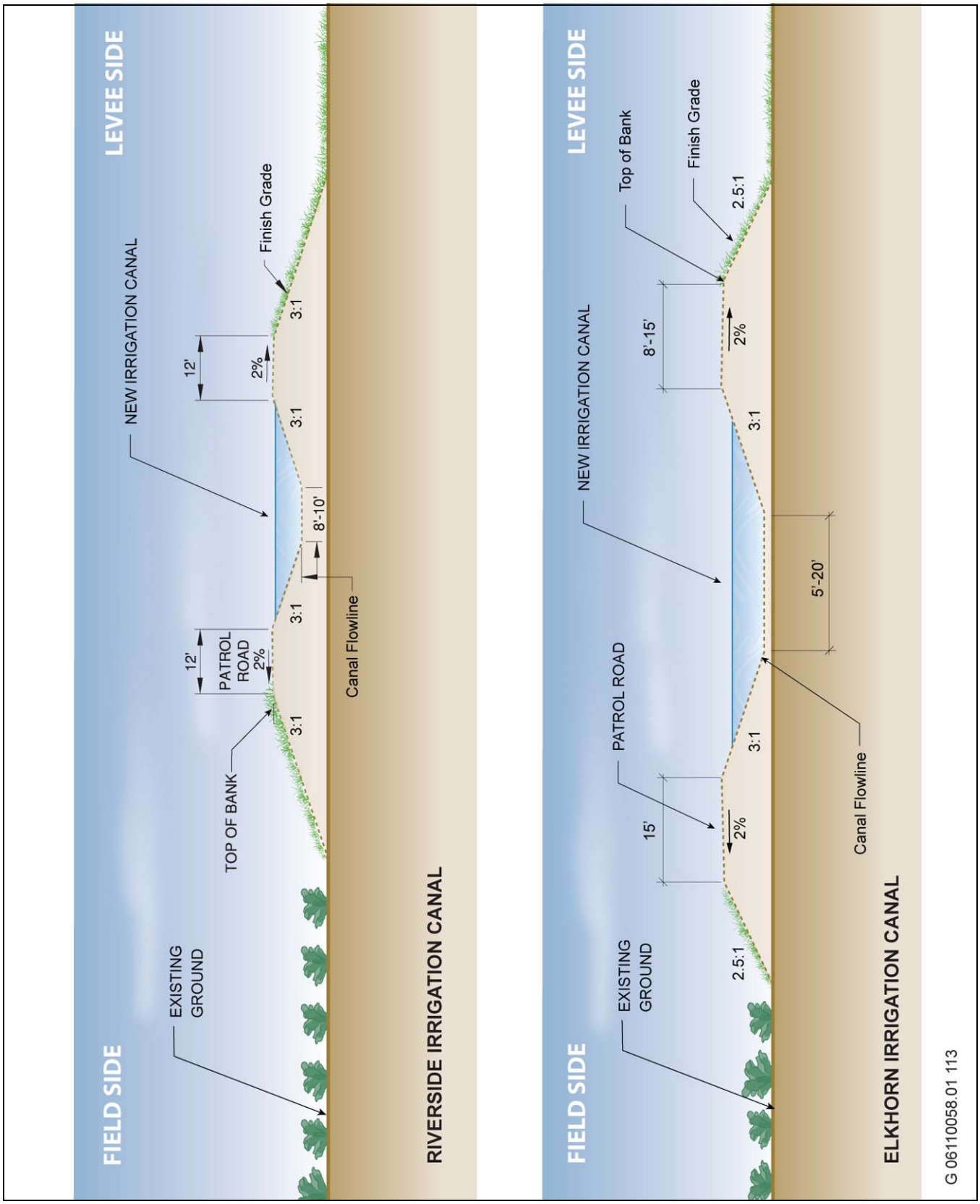
Project construction will require the relocation of both the Elkhorn and Riverside Main Irrigation Canals. The Elkhorn Canal will be relocated in Phase 2 (between the North Drainage Canal and Elkhorn Reservoir) and Phase 3 (south of the Elkhorn Reservoir). The Riverside Canal will be relocated and extended westward in Phase 4a.

The new irrigation canals will be “highline canals” which will flow above grade, confined by flanking earth berms, so that diverted river water can flow by gravity to lateral distribution canals serving agricultural fields (**Exhibit 3-3)**. The primary purpose of constructing these canals is to replace existing NCMWC water supply infrastructure and irrigation services affected by the fill of the existing Elkhorn and Riverside Canals, necessary for levee widening. In addition, the relocated canals are expected to provide giant garter snake habitat and foraging habitat for Swainson’s hawk along its banks and rights-of-way. Canal design (e.g., gentle side slopes, wider easement area, and improved maintenance roads) and modified management of the bank vegetation will reduce the frequency and intensity of bank disturbance and provide some continuous shoreline cover for giant garter snake and other semi-aquatic species.

Most of the new irrigation canals will be aligned parallel to the Garden Highway, as close to the edge of the levee improvements as possible. In some areas, there will be a seepage berm extending from the levee with an overall width of up to 300 feet. A 50-foot maintenance corridor and a 20-foot-wide overhead utility corridor will be located between the toe of the new levee’s landside slope and the edge of the relocated canal right-of-way. In some areas, the irrigation canal will be piped under features that need to be avoided (e.g., the Teal Bend Golf Club, private residences).

The new canals will have a 10- to 12-foot-wide bottom and 3H:1V slopes and be approximately 6–7 feet deep with a 5- to 6-foot maximum water depth during the irrigation season (**Exhibit 3-3**). The canals are designed to maintain flow demand and existing water delivery levels at each service point. The cross-sectional area of the canals is based on the conveyance area required to maintain existing downstream water-service elevations at each service point during peak-flow operations while considering the allowable elevation provided at the pumping plants.

The gentle side slopes are designed to facilitate the shoreline growth of freshwater plants. Native perennial grasses will be planted on the canal banks to provide cover for giant garter snake, discourage weeds, raise cutting height above the ground, and reduce the frequency at which bank vegetation is disturbed. Outer canal banks (dry side of berms) will be seeded and managed as native perennial grassland. Approximately TBD linear feet of canal will be lined with concrete to replace the existing concrete lined canal owned by NCMWC. Lined canals are typically needed in areas where unlined canals would result in a high rate of water loss caused by deep percolation through porous underlying soils.



Source: Data provided by Mead & Hunt and Adapted by EDAW in 2009

Typical Cross Sections of the Elkhorn and Riverside Main Irrigation Canals **Exhibit 3-3**

3.2.3 GIANT GARTER SNAKE RICE HABITAT

In Phase 2, up to 175 acres of the Brookfield site will be preserved under a perpetual conservation easement that mandates rice cultivation. The Brookfield site, located in the northeastern part of the Natomas Basin, is used for rice production and will be used as a borrow site for levee construction in Phases 2 and 3. After the borrow material is extracted, the property will be returned to rice production, and, in Phase 2, a 175-acre portion will be preserved in perpetuity. Rice fields support foraging and rearing habitat for giant garter snake. Protecting rice fields in the northeastern part of the Natomas Basin creates a large area that is managed in perpetuity for giant garter snake, thus contributing to giant garter snake recovery in the Natomas Basin. In addition, the preserved rice fields will be cultivated in a manner that maximizes habitat suitability and minimizes potential for snake injury and mortality, thus improving the habitat quality of the rice fields as they existed prior to borrow activities.

Because few surveys for giant garter snake have been conducted in the northeastern part of the Natomas Basin, giant garter snakes have not yet been documented in this portion of the Natomas Basin. Nonetheless, giant garter snakes are known to occur in suitable habitat throughout the Natomas Basin, including areas to the west (e.g., TNBC preserves along the NCC), south (e.g., “snake alley” and nearby TNBC preserves), and east. Therefore, it is likely that giant garter snakes will use the rice fields in this portion of the Natomas Basin as foraging and rearing habitat.

SAFCA will improve the canal on the south side of the property, improving its connection under SR 99/70 to other habitats managed for giant garter snake farther west along the NCC. SAFCA also will improve surface water irrigation to the site to reduce the site’s dependence on groundwater. In this way, SAFCA will contribute to maintaining a balance of the groundwater aquifer, which otherwise could be negatively affected by new cutoff walls to be installed in the levees. A balanced groundwater aquifer also will improve habitat connectivity between rice fields and the existing canal network, which are used as movement corridors by the snake.

Rice is typically planted in May and harvested between late August and October, depending on the planting date, rice variety, seasonal growth progress, and rainfall events that may interrupt the harvesting process. The rice is harvested with combines, collected in a storage tank on the combine, transferred to a grain cart, and transferred to a truck.

After rice harvest and drainage of rice fields, rice stubble or straw decomposition is managed with different practices to minimize disease and residue. Several approaches are used:

- The rice stubble is disced (stubble disc) and subsequently flooded via irrigation.
- The rice stubble is disced before winter rains, and no irrigation water is applied.

- The rice stubble is plowed to bury the residue.
- The rice stubble is cut, windrowed, baled, and removed from the field with little stubble remaining on the field.
- The rice stubble is burned in fall or spring. The amount of burning allowed by the local air quality control board is limited.

The use of fallowing and crop rotation is a function of water availability, disease and pest control, weed control, and the price of rice. Low rice prices occasionally result in a reduction in acreage (fallowing). Crop rotations involve such crops as wheat, safflower, and corn. Disease control is usually accomplished with the rice stubble management techniques described above. Weed control is accomplished with crop rotations and herbicides. Weed control on the berms varies from allowing the weeds to grow unchecked to maintaining the growth via herbicides. The area devoted to berms is not harvested, and weed growth can compromise rice production and crop quality.

The Natomas Basin HCP recognizes that, in the absence of new research, continued rice farming in the Natomas Basin supports the giant garter snake and is an integral component of the overall conservation strategy. It identifies the following management criteria for rice fields:

- Rice fields will generally be selected in areas that are in, or that have connectivity to, known giant garter snake populations or known occupied garter snake habitat.
- Rice fields located in areas designated to receive frequent winter flood waters (e.g., the Yolo and Sutter Bypasses) will be avoided.
- Rice fields will be managed to maximize giant garter snake compatibility. Management techniques include maintenance of rice checks, berms, and other water control structures in as natural a state as practicable for maintenance of garter snake prey species (e.g., mosquito fish) in or near the rice fields through appropriate management, and other measures as appropriate. However, any such management will also, to the extent compatible with giant garter snake conservation, be compatible with the needs of commercial rice production.
- The drainage regime for rice fields shall be designed to ensure that giant garter snake retreats are not inundated when water is drained from ditches, fields, and canals. It is also desirable to locate upland habitats inside the habitat reserves to avoid flooding of winter retreats.

3.2.4 NATIVE PERENNIAL GRASSLANDS ON LEVEE SLOPES, SEEPAGE BERMS, AND ACCESS RIGHTS-OF-WAY

Levee improvements made in Phases 2, 3, and 4a will result in an expanded flood damage reduction footprint in the Natomas Basin, consisting of a larger adjacent setback levee footprint with wider, gentle 3H:1V slopes, access rights-of-way, and, in some areas, seepage berms. Native perennial grasslands will be established on these areas and managed to support moderate-quality foraging habitat for Swainson's hawk.

Native perennial grasslands may attract larger populations of small mammals than ruderal annual grasslands or some annual croplands. Native perennial grassland cover is available to small mammals year-round. Ruderal annual vegetation has a growth spurt in spring and is typically dry and less palatable by midsummer. It is also significantly more prone to wildfire and provides little or no habitat after it has burned. In contrast, perennial grasses grow from early spring to late fall, providing a more palatable food source and more cumulative food biomass for small mammals, and they are less prone to wildfire. In addition, although rodents may occur in abundance in tall grass or weeds, the height of the vegetation provides them better cover from predators, making the rodents less available to foraging Swainson's hawk or other raptors. For prey to be available, vegetative cover must be short (i.e., ideally approximately 4–12 inches). Mowers will be set to approximately 6 inches above grade, which is the minimum practical mowing height for the equipment, and the lowest setting to avoid damage to the root crown of bunchgrasses, where new growth originates.

Many of the managed grassland sites will connect with adjacent TNBC properties that are managed for Swainson's hawk foraging habitat and nesting habitat. Also, much of the managed grassland will be located close to new landside woodland corridors and groves. By connecting these properties, the Project will create a larger contiguous area to be managed for Swainson's hawk than currently exists. Connecting these properties will increase the habitat value and functions that these individual properties would otherwise provide in isolation and will contribute to Swainson's hawk recovery in the Natomas Basin. Managed native perennial grassland is higher quality foraging habitat than existing, unmanaged ruderal annual grassland found on and next to the existing levee, maintenance roads, and canal systems affected by the Project.

3.2.5 LANDSIDE WOODLANDS

A component of the Project's compensation proposal is to connect and improve the continuity between existing, isolated oak groves by planting extensive woodland corridors and expanding existing groves through the creation and preservation of at least 140 acres of landside woodlands. Bank erosion on the east bank of the upper Sacramento River within the project area has depleted the waterside riparian forest, resulting in gaps in the forest canopy. Landside woodland corridors to be created in this area will minimize such gaps in woodland and forest continuity. Establishing landside woodland corridors in these reaches will increase the interface of landside

woodlands connected to the riverside riparian forest. These corridors will enhance daily and seasonal movement corridors for wildlife and avian populations between habitat types and between foraging and breeding areas. Implementing the Project will substantially increase the acreage and spatial distribution of landside woodlands. The size and extent of these restored woodlands, which will be surrounded by protected and managed grasslands, cropland, and wetlands, will provide an important opportunity to diversify landscape complexity and beneficial edge effects.

Two types of woodlands will be created: a 100- to 200-foot-wide corridor of woodlands running generally north-south along the east side of the new levees, and larger nodes of woodland groves created contiguous to the linear corridor and adjacent to existing high-quality valley oak woodlands. Trees provide nesting habitat for Swainson's hawk and enhance the value of foraging habitats in the area. Large areas in the Natomas Basin have few or no mature trees or recruitment of saplings, so additional trees could increase long-term habitat values for Swainson's hawk. Increasing landside woodlands in the Natomas Basin is expected to bring new nesting opportunities to areas farther inland from the levees where those habitat values have been lost and to make existing Swainson's hawk foraging habitat on interior agricultural fields more accessible. The woodlands will increase the productivity of these lands as foraging habitat.

The priority for woodland corridors is for tall, fast-growing tree species to be planted adjacent to Swainson's hawk foraging fields to increase potential nest sites for Swainson's hawk and other bird species, to maximize habitat-edge transitions between nesting and foraging habitat, and to minimize distances between nesting and foraging areas. The design of landside woodland habitats will include valley oak savanna with grassland, elderberry shrub clusters, mixed riparian forest, native grassland, riparian scrub, and other microhabitats, as well as a mosaic of closed canopy oak, sycamore, and cottonwood woodland. All these woodland-related habitat types will be established on historic riparian soil types and the natural overbank landform of the Sacramento River. A mixture of native species will be planted, but predominant species will be valley oak, the primary tree species that will be affected by the proposed improvements to the Sacramento River east levee, and, where suitable, cottonwood, which is a preferred nest tree for Swainson's hawks in the Natomas Basin and which is faster growing than valley oak. At maturity, stand structure will vary from closed canopy woodland to grassland savanna vegetation types.

The woodland habitat compensation sites will provide connectivity between adjacent TNBC properties that are managed for Swainson's hawk habitat. By connecting these properties, the Project will create a contiguous area managed for Swainson's hawk that is larger than the current area. Creating contiguous habitat will increase the habitat value and functions that these individual properties would otherwise provide in isolation and will contribute to Swainson's hawk recovery in the Natomas Basin.

The Natomas Basin HCP recommends that upland foraging habitat be made attractive for the Swainson's hawk through appropriate habitat management (e.g., establishment of landside woodlands). Establishing native perennial grassland adds a new vegetation cover type to the mosaic of basin crops, adding to forage habit diversity and variable timing of prey availability. Bringing suitable nesting and perching habitat closer to suitable foraging habitat will optimize nesting and foraging opportunities for Swainson's hawks in the Natomas Basin by providing an abundant and available prey source.

3.2.6 AGRICULTURAL UPLANDS SWAINSON'S HAWK FORAGING HABITAT

Approximately 150 acres of agricultural uplands, which will be managed as foraging habitat for Swainson's hawk, will be preserved through all Project phases, including approximately 80 acres in Phase 2 and the remaining acres in Phase 3 and/or Phase 4a. The locations of approximately 80 of the 150 acres have been identified at the Novak and Lauppe properties (in Phase 2); the locations of the remaining acres will be identified as part of Phase 3 and Phase 4a of the Project.

As described for the grasslands above, to maximize the value of preserved foraging crops, mitigation locations were selected and purchased to connect with or be close to TNBC properties that are managed for Swainson's hawk foraging habitat and nesting habitat, as well as new landside woodlands that will be created as part of the Project to provide nesting habitat. By connecting these properties, the Project will create a larger contiguous area that is managed for Swainson's hawk than currently exists. Connecting these properties will increase the habitat value and functions that these individual properties will otherwise provide in isolation and will contribute to Swainson's hawk recovery in the Natomas Basin.

The Natomas Basin HCP identifies several criteria for establishing upland foraging habitat in the Natomas Basin: (1) sites should be located within the Swainson's Hawk Zone, which is a one-mile-wide zone along the landside length of the Sacramento River east levee, identified in the Natomas Basin HCP as an important area where to protect and enhance foraging habitat since most Swainson's hawks nest in the riparian woodlands along the river; (2) sites should provide specific, important benefits to other upland-associated species (e.g., tricolored blackbird nesting colonies); (3) other priority sites should support Swainson's hawk nests or foraging habitat outside the Swainson's Hawk Zone; (4) sites should provide a good potential for enhancement of upland habitat values; and (5) any other site that would result in a benefit to any upland species. Because most Swainson's hawks nest along the Sacramento River, establishing upland foraging habitat within one mile of the river (i.e., in the Swainson's Hawk Zone) optimizes nesting and foraging habitat for the hawk in the area where most nesting occurs. The Natomas Basin HCP acknowledges that the minimum foraging habitat needed for Swainson's hawk nesting sites can vary depending on prey availability and density, which is in part a function of vegetation cover type in the foraging habitat and the activities (e.g., management practices, agricultural activities) associated with that habitat,

and proximity to water and other green feed that supports a prey base. Optimal upland foraging habitat should include the following criteria:

- The land contains known or potential Swainson's hawk nest trees or includes or is adjacent to suitable foraging habitat (e.g., agricultural croplands and grasslands).
- Agricultural croplands and grasslands that, based on crop type or surveys, are expected to have a suitable Swainson's hawk prey base and, preferably, have historically been used by Swainson's hawks.
- The land is or can be used to grow grassland and crops conducive to Swainson's hawk foraging, including alfalfa and other hay crops, lightly grazed pasture, fallow fields, summer-harvested row crops, but not cotton and other late harvest crops.
- If possible, the land contains appropriate soils and hydrology for the establishment of riparian and valley oak woodland habitat, or is located in smaller groves within agricultural fields for future use by Swainson's hawks. Trees that may be planted include valley oaks, cottonwoods, willows, sycamores, and California walnut.
- Contiguity of upland reserve sites should be maximized, with most upland reserves being concentrated in the Swainson's Hawk Zone.
- The land supports or has the potential to support other Natomas Basin HCP–covered species that use upland habitat.

3.2.7 MANAGED MARSH

At least 100 acres of managed marsh will be created in the vicinity of Fisherman's Lake during Phase 4a. Design of the marsh will follow the templates established by EDAW on the Willey Wetland Preserve in the northeast part of the Natomas Basin and at Prichard Lake on airport property, and by TNBC on recent giant garter snake mitigation projects, including the TNBC preserve wetlands west of Fisherman's Lake. These design templates feature a combination of uplands and shallow water bodies, sinuosity of swales, and good water control structures to manage precise water levels at different times of the year. The managed marsh will have perimeter fences to control and protect grazing animals, such as goats; low to moderate grazing by goats can be a successful management technique to reduce invasions of weedy thatch and exotic plants while retaining sufficient cover for giant garter snake and other semi-aquatic species that rely on grassy uplands adjoining the wetland ponds.

An essential component of the managed marshes will be procurement of a firm, reliable water supply and good water quality throughout the giant garter snake's active season of May 1st through October 1st. With a land right to

purchase water from NCMWC for habitat components, SAFCA will secure long-term contractual agreements from NCMWC to ensure a reliable water supply to the created managed marsh. SAFCA will also work with TNBC to retain existing groundwater well and pumping facilities and to install such new groundwater facilities as may be necessary to ensure access to water supplies in the event of NCMWC shortages or other service interruptions.

Created managed marsh in the vicinity of Fisherman's Lake will be situated adjacent to or nearby existing TNBC marsh preserves, thereby providing for greater contiguous management areas and enhancing the overall habitat value of the adjacent preserves. At sites closer to the Airport Critical Zone, marsh design and management will optimize the values of giant garter snake habitat but minimize the attraction to wildlife species (e.g., flocks of waterfowl, starlings, and pheasants) considered to be potentially hazardous to aircraft at low elevations approaching or departing from runways.

Managed marshes established for the giant garter snake will generally also benefit other wetland-species, such as tricolored blackbird, northwestern pond turtle, and Delta tule pea. For example, managed marsh management policies outlined in the Natomas Basin HCP are designed to ensure a water regime that provides for inundation of wetland areas to support the needs of multiple species, including spring and summer inundations to support the giant garter snake, and other special-status species that are aquatic breeders or species of waterfowl. The upland areas in managed marshes provide cover and hibernacula needed for a number of wetland-associated species.

The Natomas Basin HCP does not provide site-specific prescriptions for marsh design and management, but it outlines the basic habitat elements needed for managed marshes in the TNBC reserve system to support giant garter snake and other species. These features include (1) summer dry-down of seasonal marsh; (2) availability of summer water either as pockets of deeper water that persist in the seasonal marsh or as permanent marsh, located near or adjacent to vegetated banks or suitable upland habitat, a significant portion of which is above expected winter flood levels; (3) open water channels in marsh habitat to provide movement corridors and foraging edge; (4) availability of abundant emergent vegetation and near-shore habitat; (5) a good food supply; and (6) availability of diverse habitat elements. The Natomas Basin HCP notes that water quality must be maintained in the managed marshes to maintain wildlife productivity and preclude the outbreak of wildlife diseases. Management and enhancement of a managed marsh can be maximized through water control, particularly managing for suitable water depths of usually less than 3 feet to support the establishment of appropriate vegetation through a variety of water manipulation approaches (e.g., levees, stop log and screw gate water control structures to regulate water flows and depths, and dewatering systems).

3.3 UPDATES TO THE LTMP

The permitting of each phase of the Project will require an update to this LTMP, specifically through the addition of corresponding SSMPs, easements, and management agreements as appendices to this document. The components of this LTMP are not expected to change, but where updates are required, an addendum or a revised version will be issued to update the document. For Phases 3 and 4a, the corresponding SSMPs, easements, and management agreements will be issued to the resource agencies for review and approval and then appended to this document when they are final.

4 INSPECTION, MONITORING, AND REPORTING SUMMARY

4.1 SUMMARY OF INSPECTION AND MONITORING ACTIVITIES

The approach to long-term management of the canal improvement and habitat compensation sites is to conduct site maintenance inspections and monitoring of selected characteristics to determine site conditions and, where appropriate, to observe ongoing trends of the preserved and created habitats. Although it is not anticipated that major management actions will be needed, an objective of conducting site maintenance inspections and monitoring is to identify any issues that arise and use adaptive management to determine what actions might be appropriate. Monitoring activities will be conducted by entities or subcontractors that have the requisite knowledge, training, and experience.

Site maintenance inspection actions conducted at each site will differ depending on the features of the site. For the improved irrigation canals and perennial grassland sites, site maintenance inspections will assess overall site conditions, including infrastructure and facilities, trash accumulation and removal, noxious weed conditions, vandalism, fire hazards, and erosion problems. These inspections will be conducted every one to five years after the site success establishment period. Monitoring reports reflecting the results of the inspections will be submitted to USACE, USFWS, and DFG (Resource Agencies) by December 31 of each year that such a monitoring report is due. In general, inspections will be consistent with normal inspection activities conducted by the land manager. For the GGS/Drainage Canal, agricultural uplands, giant garter snake rice habitats, and managed marsh habitat sites, in addition to information on general site conditions, monitoring reports will include a biological trends assessment to be conducted consistent with the schedule and methods for the *Natomas Basin Habitat Conservation Plan's Biological Effectiveness Monitoring Plan* (TNBC 2006), as described below. Biological monitoring will gather and analyze data on land use, vegetation cover, and abundance and distribution of giant garter snake, Swainson's hawk, and other wildlife species. Specific monitoring guidance for each mitigation site is detailed in the site's SSMP.

4.2 CONSISTENCY WITH NATOMAS BASIN HCP

The Natomas Basin HCP calls for the development and implementation of a biological effectiveness monitoring plan. The plan describes the methods and protocols to be used to collect and analyze information needed to evaluate the effectiveness of the Natomas Basin HCP. TNBC is responsible for implementation of the biological effectiveness monitoring plan, which is composed of two components: the overall Biological Effectiveness Monitoring Program (BEMP) and the Site-Specific BEMP.

The BEMP is a programmatic document that provides a comprehensive description of the monitoring protocols conducted by TNBC throughout the Natomas Basin (TNBC 2006). These monitoring protocols are designed to

ensure consistent application of monitoring techniques over time. Under the BEMP, TNBC conducts basinwide programmatic monitoring that includes collecting data about TNBC reserves and non-TNBC properties. The Site-Specific BEMP consists of site-specific biological effectiveness monitoring plans that provide site-specific instructions on how to implement the monitoring protocols described in the BEMP (TNBC 2006:3).

4.2.1 BIOLOGICAL EFFECTIVENESS MONITORING PROGRAM

In April 2006, TNBC prepared the *Natomas Basin Habitat Conservation Plan Area Biological Effectiveness Monitoring Program* (TNBC 2006), which is the guiding document for implementation of the BEMP and Site-Specific BEMP. The BEMP provides protocols for monitoring changes in the distribution and abundance of land cover types (i.e., habitat types), noxious weeds, giant garter snake populations, Swainson's hawk populations, populations of other species covered under the Natomas Basin HCP (i.e., Other Covered Species), and populations of wildlife. Monitoring data are stored in the Integrated Basin-Wide BEMP Geographic Information Systems (GIS) Database (BEMP database).

HABITAT TYPES MONITORING

Twenty-five habitat types were identified and mapped using GIS to provide a baseline for basinwide vegetation monitoring under the BEMP. Habitat types are field-verified annually, changes are tracked in the BEMP database, and the habitat type maps are modified accordingly. According to the BEMP, the objectives of the basinwide habitat monitoring are to (1) quantify the distribution and abundance of general habitat types throughout the Natomas Basis, (2) track changes in the distribution and abundance of habitat types through time, and (3) provide spatially explicit information on the distribution and abundance of habitat types throughout the Natomas Basin to guide future reserve site acquisitions and to provide information on potential dispersal corridors between reserves. The canal improvement and habitat compensation sites will be included in habitat types monitoring, which will follow the methodology described in the BEMP guidance document (TNBC 2006:6–7).

NOXIOUS WEEDS MONITORING

According to the BEMP, noxious weeds are mapped annually on TNBC reserve lands only. The noxious weeds monitored are those species the Natomas Basin HCP considers invasive to wildlands and natural vegetation, rather than weeds of agricultural importance. Monitoring for noxious weeds on canal improvement and habitat compensation sites will follow the methodology for noxious weeds surveys described in the BEMP guidance document (TNBC 2006:24–26).

GIANT GARTER SNAKE MONITORING

The BEMP builds on giant garter snake monitoring conducted in the Natomas Basin since the 1980s. Monitoring under the BEMP consists of systematic passive and active surveys throughout the Natomas Basin, both on and off

TNBC reserves. According to the BEMP, the objectives of the giant garter snake monitoring are to (1) track populations of giant garter snake throughout the Natomas Basin; (2) evaluate the effectiveness of mitigation land design, restoration, and management in providing habitat for giant garter snake; (3) evaluate the comparative success of giant garter snake on reserve and nonreserve lands; and (4) determine whether the reserves are supporting the general population of giant garter snake. Monitoring for canal improvement and habitat compensation sites that support giant garter snake will follow the methodology for giant garter snake monitoring described in the BEMP guidance document (TNBC 2006:9–15).

SWAINSON'S HAWK MONITORING

Monitoring under the BEMP includes an annual survey of nesting Swainson's hawks to document distribution and density of the species throughout the Natomas Basin. According to the BEMP, the objectives of the Swainson's hawk monitoring are to document the numbers, distribution, density, and reproductive success of the species' population in the Natomas Basin and to document changes in land use and availability of Swainson's hawk foraging habitats throughout the Natomas Basin over time. Monitoring for canal improvement and habitat compensation sites that support Swainson's hawk will follow the methodology for Swainson's hawk monitoring described in the BEMP guidance document (TNBC 2006:15–17).

OTHER COVERED SPECIES MONITORING

Unlike monitoring for giant garter snake and Swainson's hawk, protocols for monitoring Other Covered Species (e.g., avian species, western pond turtle, valley elderberry longhorn beetle) differ on reserve lands and nonreserve lands. According to the BEMP, the objectives for monitoring Other Covered Species on reserve lands are to (1) document the presence and absence of and use of reserve lands by Other Covered Species, (2) allow for comparison of the relative success of Other Covered Species on reserve and nonreserve lands, and (3) assess the degree to which TNBC reserves are supporting populations of Other Covered Species. The objectives for monitoring Other Covered Species on nonreserve lands are to (1) generally document the presence and absence of Other Covered Species in the Natomas Basin, (2) allow for the comparison of the relative success of Other Covered Species on TNBC reserve and nonreserve lands, and (3) assessing the degree to which TNBC reserve lands are supporting populations of Other Covered Species by providing information on basinwide populations for comparison. Monitoring for other species affected by the Project will follow the methodology for Other Covered Species monitoring described in the BEMP guidance document (TNBC 2006:17–23).

4.3 ADAPTIVE MANAGEMENT STRATEGY AND PROCEDURES

The land manager will employ their existing adaptive management strategies, which incorporate feedback loops that link maintenance activities and monitoring to a decision-making process to improve site management. Changes to site configuration, management, and/or maintenance activities may require review and approval or

permits from the Resource Agencies. Additionally, these changes may require revision to this LTMP or respective SSMP.

4.4 MONITORING REPORT

Following completion of performance monitoring as required by the MMPs, monitoring report preparation and frequency will be consistent with the established protocols for the land manager. If the land manager does not have established protocols for monitoring reports, the land manager will prepare a monitoring report every five years. The monitoring report will be submitted to the Resource Agencies by December 31 of each year that such a monitoring report is due. The report will include, at a minimum, the following information:

- a list of the individuals who prepared the report or participated in the monitoring activities for the reporting period , including titles and affiliations;
- a description of actions that were carried out during the reporting period and for which resource agency notification or approval was not needed;
- a discussion of any modifications made to monitoring methods;
- recommendations for additional or modified management practices, as needed, for the next reporting period , containing a written description of any proposed modifications to ongoing management activities that includes timing, methodology, and a map showing what areas will be targeted(the resource agencies will have 60 calendar days to contact the land manager to discuss any areas of disagreement or concern);
- a comparison of the monitoring results with expected site conditions , including hydrological conditions for canal and wetland improvement sites, with a discussion of trends toward maintaining identified site objectives;
- a summary of vegetation surveys, noxious weeds surveys, and habitat types monitoring;
- copies of original field notes and monitoring data sheets (copies of all field data sheets will be available for agency review upon request);
- a summary of additional activities (e.g., research, remediation) conducted during the report period; and
- a summary of activities proposed for the next reporting period.

The monitoring report will refer to the USACE regulatory branch's file numbers (SPK-2007-211 [Phase 2], SPK-2008-1039 [Phase 3], and a to be determined number for Phase 4) and the USFWS file number (81420-2008-F-0195-5) for the Project.

5 AGENCY NOTIFICATION AND EMERGENCY SITUATIONS

The Resource Agencies have requested to be notified when certain management and maintenance activities are undertaken on the canal improvement and habitat compensation sites. Some activities on the sites may require permits from one or more agencies. This chapter has been prepared to provide the land manager of the canal improvement and habitat compensation sites the information they need regarding agency notification and permit requirements to allow them to perform management and maintenance activities in a responsive manner. The notification and permit requirements for applicable agencies are summarized in **Table 5-1**.

5.1 NO NOTIFICATION REQUIRED

If an activity described in this LTMP or in the applicable SSMP does not have a specific requirement for resource agency notification, then no notification and no agency review and approval are required. If an activity was not anticipated by this LTMP or in the applicable SSMP, and therefore is not mentioned, then review and approval by the Resource Agencies is required.

5.2 RESOURCE AGENCY NOTIFICATION

5.2.1 NOTIFICATION FOR ACTIVITIES NOT REQUIRING RESOURCE AGENCY REVIEW AND APPROVAL

For those activities described in this LTMP or in the applicable SSMP that require Resource Agency notification, the following action will be taken. All efforts will be made to outline the activities for the next reporting period in the monitoring report, to be submitted to the Resource Agencies by December 31 of each year in which such a report is due. If the activity was not identified in the monitoring report, then the land manager and/or SCAS (for activities on Airport property) will submit, no later than 30 days prior to the date that the activity will take place, a separate letter by certified mail or other method ensuring delivery to the Resource Agencies. Addresses for the Resource Agencies are listed in Section 8.4.1 of this LTMP. Correspondence will include a written description of the activity, including when the activity will take place and what methodology will be used, as well as a map showing what areas will be targeted.. Notification will be made by fax, e-mail, registered mail, or overnight transmittal. The Resource Agencies will have 30 days to contact the land manager to discuss the activity prior to commencement.

5.2.2 NOTIFICATION FOR ACTIVITIES REQUIRING RESOURCE AGENCY REVIEW AND APPROVAL

For those activities described in this LTMP or in the applicable SSMP that require review and approval from the Resource Agencies, the following action will be taken. All efforts will be made to outline the activities for the next reporting period in the monitoring report, to be submitted to the Resource Agencies by December 31 of each calendar year in which such a report is due. If the activity was not identified in the monitoring report, then

the land manager and/or SCAS (for activities on Airport property) will submit, no later than 60 days prior to the date that the activity will take place, a separate letter by certified mail or other method ensuring delivery to the Resource Agencies. Addresses for the Resource Agencies are listed in Section 8.4.1 of this LTMP. Correspondence will include a written description of the activity, including when the activity will take place and what methodology will be used, as well as a map showing what areas will be targeted. Activities that require Resource Agency review and approval include adoption of management techniques not described in this LTMP, as well as proposed engagement (due to special circumstances) in a prohibited activity, as described in the applicable SSMP. The Resource Agencies will have 60 days to review, discuss, and approve the activity. For these activities, approval from the Resource Agencies must be written. Submittal of activities for review and approval, as well as written approval from the Resource Agencies, will be made by fax, e-mail, registered mail, or overnight transmittal.

5.3 ACTIVITIES REQUIRING A USACE SECTION 404 PERMIT

Specific maintenance activities that may require separate authorizations (permits) under Section 404 of the Clean Water Act. Some of the activities described in this LTMP or in the SSMPs have the potential to adversely affect wetlands or waters of the United States. The term "loss of waters of the United States" is generally defined in the "Notices" section on page 2094 of the *Federal Register*, Volume 67, No. 10 (Tuesday, January 15, 2002), as follows:

> Waters of the US…include the filled area and other waters that are permanently adversely affected by flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent above-grade, at-grade, or below-grade fills that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the US is the threshold measurement of the impact to existing waters for determining whether a project may qualify for an NWP [Nationwide Permit]; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and values. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the US temporarily filled, flooded, excavated, or drained, but restored to preconstruction contours and elevations after construction, are not included in the measurement of loss of waters of the US. Impacts to ephemeral waters are only not included in the acreage or linear foot measurements of loss of waters of the US or loss of stream bed, for the purpose of determining compliance with the threshold limits of the NWPs.

Activities that may require a permit include dredging channels to remove sediment; installing monitoring equipment; replacing pumps, twin track weirs, or utility lines; and realigning channels. If there is a question regarding whether a maintenance activity will require a USACE permit, the land manager will seek guidance from USACE.

5.4 USFWS NOTIFICATION

In addition to resource agency notification described in Section 5.2 of this LTMP, USFWS notification is required under the following circumstances:

- USFWS must be consulted regarding any activities that require a USACE Section 404 permit or that may result in "take" of listed species. The definition of "take" under the Endangered Species Act includes to harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.
- Biologists are required to notify USFWS if any Federally listed species are found on-site. Notification will be a submitted report that includes the date, location, habitat description, and corrective measures (if applicable) implemented to protect the species. Additional notification must also be made to DFG for entry to the California Natural Diversity Database using the California Native Species Field Survey forms.
- Any contractor or employee who inadvertently kills or injures a Federally listed wildlife species must immediately report the incident to USFWS's Sacramento Valley Branch, Endangered Species Division, at 2800 Cottage Way, W-2605, Sacramento, CA 95825, (916) 414-6645.
- USFWS must be notified within 3 working days after a dead or injured Federally listed wildlife species is found or an unanticipated take of a listed species occurs.
- Any giant garter snakes killed on-site will be preserved and delivered to the USFWS Sacramento Valley Branch, 2800 Cottage Way, W-2605, Sacramento, CA 95825, (916) 414-6600.

5.5 ACTIVITIES REQUIRING USFWS SECTION 7 AUTHORIZATION

USFWS has authority over projects and activities that may affect the continued existence of a Federally listed (threatened or endangered) terrestrial species. Section 7 of the Endangered Species Act outlines procedures for federal interagency cooperation to conserve Federally listed species and designated critical habitat. Section 7(a)(2) requires Federal agencies to consult with USFWS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species.

5.6 ACTIVITIES REQUIRING CENTRAL VALLEY RWQCB PERMITS

In addition to USACE and USFWS notification and authorization, the managers of the canal improvement and habitat compensation sites may need to seek authorization from the Central Valley RWQCB for specific maintenance activities. Under the Porter-Cologne Water Quality Control Act, "waters of the state" fall under the jurisdiction of the appropriate RWQCB. Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater and identifies actions to control nonpoint and point sources of pollution to achieve and maintain these standards.

Projects that affect wetlands or waters must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification or waiver under Section 401 of the Clean Water Act.

5.7 ACTIVITIES REQUIRING DFG PERMITS

Activities that would result in diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by DFG under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or to deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, without first notifying DFG. A DFG Section 1602 Streambed Alteration Agreement may be needed for any activity that would result in an impact on a river, stream, or lake.

Pursuant to the California Endangered Species Act (CESA), a Section 2081(b) permit from DFG is required for projects that could result in the take of a plant or animal species that is State listed as threatened or endangered. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but the CESA definition of take does not include "harming" or "harassing," as the Federal Endangered Species Act (ESA) definition does. As a result, the threshold for take is higher under CESA than under ESA (i.e., habitat modification is not necessarily considered a take under CESA). Authorization for take of State-listed species can be obtained through a Section 2080.1 consistency determination where a Federal take permit or biological opinion has been issued or through a Section 2081 incidental take permit issued by DFG. DFG will be notified pursuant to 2080 et seq. of California Fish and Game Code for any activity that may result in the take of a plant or animal species that is State listed as threatened or endangered.

5.8 EMERGENCY SITUATIONS

If an emergency situation arises that requires immediate action in an area that would normally require that the Resource Agencies be notified or have review and approval authority, then Resource Agencies will be notified orally within 48 hours after the action is taken, with written confirmation of the action taken to follow within one week. In these situations, "emergency'' is defined as a situation that would result in an unacceptable hazard to life; a significant loss of property; or an immediate, unforeseen, and significant economic hardship.

If an emergency situation arises that requires immediate action in a wetland or waters of the United States, and the action would normally require that a permit be obtained from USACE, the following applies, as stated in the Code of Federal Regulations, Title 33, Chapter II, Part 325, Section 325.2 (Processing of Applications):

> Emergency procedures—Division engineers are authorized to approve special processing procedures in emergency situations. An emergency is a situation which would result in an unacceptable hazard to life, a

significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures.

If an emergency situation arises that requires immediate action that could adversely affect the protection and conservation of fish and wildlife resources and would normally require consultation with USFWS, Title 50—Wildlife and Fisheries, Chapter IV—Joint Regulations (United States Fish and Wildlife Service, Department of the Interior and National Marine Fisheries Service, Part 402--Interagency Cooperation—Endangered Species Act of 1973, as amended—Subpart A—General, Sec. 402.05 Emergencies), applies: Where emergency circumstances mandate the need to consult in an expedited manner, consultation may be conducted informally through alternative procedures that the Director determines to be consistent with the requirements of sections 7(a)-(d) of the Act. This provision applies to situations involving acts of God, disasters, casualties, national defense or security emergencies, etc.

Formal consultation shall be initiated as soon as practicable after the emergency is under control. The Federal agency shall submit information on the nature of the emergency action(s), the justification for the expedited consultation, and the impacts to endangered or threatened species and their habitats. The USFWS will evaluate such information and issue a biological opinion including the information and recommendations given during the emergency consultation.

If an emergency situation arises that requires immediate action that could adversely affect the protection and conservation of the fish and wildlife resources of the State and would normally require a permit from DFG, Chapter 6, Section 1610 of the California Fish and Game Code applies. Section 1610 states that a permit is not required for (1) immediate emergency work necessary to protect life or property and (2) immediate emergency repairs to public service facilities necessary to maintain service as a result of a disaster in an area in which the governor has proclaimed a state of emergency.

If SCAS determines emergency actions are necessary on Airport property in order to comply with Federal Aviation Administration (FAA) regulations, policies, orders or other directives pertaining to flight safety and operation or wildlife hazard management as a prerequisite to the Airport’s retention of its operating certificate, SCAS will, if practicable, make a reasonable effort to notify the resource agencies prior to initiating emergency actions. Fax or phone notification 72 hours prior to initiating the emergency actions, with written follow-up, will be deemed adequate. See Section 6.1 for information about aviation safety.

Table 5-1
Resource Agencies Notification Table

Activity	USACE				USFWS				DFG			
	No Notification	Notification	Review	Permit Required	No Notification	Notification	Review	Permit Required	No Notification	Notification	Review	Permit Required
Performing minor restoration activities not requiring a permit		X			X					X		
Performing beaver management			X				X				X	
Performing active or passive use of the canal improvement and habitat compensation sites for research purposes		X				X				X		
Adopting a mosquito control plan	X				X				X			
Adopting a grazing management plan	X				X				X			
Adopting management techniques not described in this LTMP or in the SSMPs			X				X			X		
Finding any Federally listed species on-site	X					X				X		
Incidental take of a listed species	X							X				X
Finding a dead or injured listed species or unanticipated take of a listed species	X					X				X		
Debris and sediment removal from canal channels				X				X				X
Resloping waterside canal banks		X				X			X			
Placement of fill material within canal channels		X				X			X			
Discing within 200 feet of a canal supporting giant garter snake		X				X			X			
Installing monitoring equipment in a jurisdictional area				X				X			X	
Replacing pumps or risers				X				X			X	
Realigning channels				X				X				X
Replacing utility lines			X				X				X	
Performing actions likely to jeopardize the continued existence of listed species		X						X				X
Performing activities that result in diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake				X				X				X
Responding to emergency situations			X	X			X	X			X	X

Notes:
DFG = California Department of Fish and Game
LTMP = long-term management plan
SSMP = site-specific management plan
USACE = U.S. Army Corps of Engineers
USFWS = U.S. Fish and Wildlife Service.
Source: Data compiled by EDAW in 2009.

6 SECURITY, SAFETY, AND PUBLIC ACCESS

6.1 AVIATION SAFETY

Many of the canal improvement and habitat compensation sites are located near the Airport; and most of the sites are within 5 miles of runways. The FAA discourages the creation of wetlands and other facilities that could attract wildlife hazardous to aircraft operations within 5 miles of the runway centerline for airports serving turbine-powered (jet) aircraft. The canal improvement sites are located in the Airport Critical Zone, which is defined by the FAA as a 10,000-foot radius from the runway centerline for airports serving jet aircraft (**see Exhibit 1-2**). Because of the potential risk of birds striking aircraft, it is important to minimize the attractiveness of these sites to large flocks of migratory waterfowl.

Reducing the attractiveness of the sites to waterfowl will be accomplished by maintaining deep and narrow open-water channels in the GGS/Drainage Canal and Elkhorn Canal. Water management will focus on providing habitat for giant garter snake during the snake's active season (spring to fall) and maintaining wetland functions and values throughout the year.

SCAS will be responsible for implementing actions to ensure aviation safety. If SCAS determines waterfowl or other wildlife at or near the approach, departure and circling airspace of the Airport's existing two runways and the planned third runway constitute a potential threat to the safety of aircraft passengers and crew, SCAS reserves the right to implement actions described in the most current version of the Airport's wildlife hazard management plan, prepared in accordance with FAA regulations and policies pertaining to airport certification and operation.

6.2 DISEASE CONCERNS

The land manager will be responsible for monitoring for naturally occurring disease outbreaks that can cause species mortality. Waterfowl in aquatic habitats are particularly vulnerable to disease outbreaks because of overcrowding; however, with the exception of the giant garter snake rice habitat compensation site, the canal improvement and habitat compensation sites have been designed so that they are not conducive to large concentrations of birds. Although overcrowding at the canal improvement and habitat compensation sites likely would not occur, the giant garter snake rice habitat compensation sites and adjacent rice fields may be used by large numbers of waterfowl, and diseased waterfowl may travel to the canal improvement and habitat compensation sites from adjacent rice fields.

The two diseases that are of most concern are West Nile virus and exotic Newcastle disease. West Nile virus is a vectorborne disease that is known to be lethal to avian fauna. Members of the corvid family, such as crows, ravens, magpies, and jays, are most commonly affected by West Nile virus, but the virus has also been known to cause mortality in sensitive waterfowl species, such as great blue herons and sandhill cranes. Exotic Newcastle

disease is a contagious and fatal disease affecting all species of birds. Many birds die from the disease without showing any symptoms associated with it. The disease affects the respiratory, nervous, and digestive systems, and it is spread primarily through immediate contact of healthy birds with infected bodily discharge from infected birds. This disease has been associated primarily with large concentrations of birds held in confinement (i.e., poultry), but it can be spread on contaminated equipment and shoes. The land manager will report any bird deaths to the West Nile virus hotline (1-877-WNV-BIRD) and DFG.

6.3 PEST MANAGEMENT

6.3.1 MOSQUITOES

Vector control on the canal improvement and habitat compensation sites is operated by two districts, depending on the location of the site. The Sutter-Yuba Mosquito Vector Control District (Sutter-Yuba MVCD) operates in Sutter County, and the Sacramento-Yolo Mosquito Vector Control District (Sacramento-Yolo MVCD) operates in Sacramento County. In each of their jurisdictions, these entities conduct mosquito-control efforts in the vicinity of the canal improvement and habitat compensation sites and likely will continue to conduct these efforts on the sites. The land manager will coordinate with Sutter-Yuba MVCD or Sacramento-Yolo MVCD, depending on the site location, to select the control mechanisms that are the least damaging to the resources.

The mosquito-control programs implemented by both of the MVCDs generally involve the use of mosquitofish (*Gambusia affinis*) and low-intensity application of *Bacillus thuringensis* var. *israelensis* or the use of other U.S. Environmental Protection Agency–approved insecticides in irrigation and drainage canals, irrigated pasture, rice fields, irrigation tail ponds, and wetlands. Sacramento-Yolo MVCD uses the guidelines found in the *Central Valley Joint Venture: Technical Guide to Best Management Practices for Mosquito Control in Managed Wetlands* (Kwasny, Wolder, and Isola. 2004). The design of the canals includes features such as water level control, flowing water, and managed input of water to reduce the potential for nuisance conditions from mosquitoes (TNBC 2003).

If mosquito control is necessary, the land manager will consult with the appropriate MVCD (depending on the county) to select the control mechanisms that are the least damaging to the canal improvement or habitat compensation site's goals. A plan outlining those mechanisms must be submitted to the Resource Agencies for review and approval.

6.3.2 BEAVER MANAGEMENT

The land manager will be responsible for assessing the beaver population on the canal improvement and habitat compensation sites. Focused assessments will be conducted during the early part of the breeding season, between mid-February and the end of April, when beavers are actively searching for mates and den sites.

Because beavers are a natural part of the ecosystem, the land manager will determine the best course of action if beaver dams become established or beaver use become evident. Potential approaches include not disturbing the beavers, installing beaver baffling devices, breaching the beaver dam, and removing the beaver. The use of beaver baffling devices, which are designed to drain beaver ponds, is allowed by the resource agencies. If a land manager determines that removal is appropriate, the land manager will work with DFG to obtain depredation permits to either trap and relocate or hunt the beaver population. USACE will be notified regarding beaver management, as USACE may require a permit for removal of beaver dams.

6.4 TRESPASS AND PUBLIC ACCESS

The intent of managing and monitoring the canal improvement and habitat compensation sites is to maintain the created and preserved habitats in perpetuity. The land manager will be responsible for addressing trespass and public access issues. Public access to the canal improvement and habitat compensation sites will be discouraged through the use of gated access, fencing, and signage. See Chapter 7 for a description of access roads, gates, and signage. New roads, trails, and utility lines will not be allowed in the canal improvement and habitat compensation sites without approval from the Resource Agencies.

6.4.1 RECREATIONAL ACTIVITIES

Recreational uses will not be permitted on the canal improvement and habitat compensation sites. However, potential trespassers are expected to continue to use the surrounding areas for birding, walking, fishing, and loitering. Fencing, gates, and signage will help to deter trespassing onto the canal improvement and habitat compensation sites. The land manager will be responsible for inspecting canal improvement and habitat compensation sites for evidence of recreational activities, and taking appropriate action to discourage future recreational activities.

6.4.2 MAINTENANCE ACTIVITIES

Access to the canal improvement and habitat compensation sites for maintenance activities is allowed but will be restricted to the immediate area where maintenance is occurring. Access to the canal improvement and habitat compensation sites in emergency or law enforcement situations by medical, fire, or law enforcement personnel or vehicles is allowed. Land manager supervised access to the canal improvement and habitat compensation sites for habitat restoration and enhancement activities or educational activities is allowed (see Sections 6.4.3 and 6.4.4).

6.4.3 HABITAT RESTORATION AND ENHANCEMENT ACTIVITIES

The land manager or another group/organization may want to conduct additional habitat restoration or enhancement on the established canal improvement and habitat compensation sites. These activities could include

removing nonnative (exotic) plant species, planting native plants, and conducting other restoration activities. Restoration activities that involve wetlands or waters of the United States may require permits under Section 404 and Section 401 (Water Quality Certification) of the Clean Water Act. The land manager will not need to notify USACE and USFWS if restoration activities do not require a permit from USACE or USFWS; however, these activities must be reviewed by a qualified biologist or restoration ecologist, properly permitted by the appropriate authority (e.g., DFG Section 1602 Streambed Alteration Agreement and California Fish and Game Code 2080.1 Consistency Determination), and described in the monitoring report. If there is a question regarding whether a restoration activity will require a USACE permit, the land manager should seek guidance from USACE.

6.4.4 EDUCATIONAL ACTIVITIES

Use of the canal improvement and habitat compensation sites for educational activities will not be allowed. Use of the sites for research purposes will be allowed through special arrangement if considered desirable and appropriate by the land manager of the canal improvement or habitat compensation site. Individuals or groups using the canal improvement and habitat compensation site for research purposes will coordinate their use with the land manager. If the research activities will be passive in nature, then the consent of the land manager is sufficient. If active use (other than restoration activities) of the canal improvement and habitat compensation sites is proposed, or if regular passive use (including ongoing research activities) of the canal improvement and habitat compensation sites is proposed, review and approval by the Resource Agencies will be required. To avoid repeated inquiries with the Resource Agencies, a use plan could be developed by the interested entity for a one-time approval. See Chapter 5 for review and notification information on educational activities.

6.5 TRASH REMOVAL AND VANDALISM

The land manager is responsible for ensuring the removal of trash and other unwanted debris from the canal improvement and habitat compensation sites. The canal improvement and habitat compensation sites are subject to vandalism and illegal dumping. The land manager may need to take action, such as installing fences or gates, to curb such activities. Natural debris will be evaluated and removed if it is determined that it will cause bank erosion. If any equipment is needed to remove debris from the canal improvement and habitat compensation sites, it will be restricted to corridors created by protective mats and will remain on the top of channel banks.

7 INFRASTRUCTURE AND FACILITIES

7.1 WATER SUPPLY AND WATER CONTROL FACILITIES

To meet the habitat objectives of the GGS/Drainage Canal, RD 1000 must have access to a controlled source of water and the facilities necessary to maintain good water quality and seasonal water levels in the canal at suitable depths to meet the life-cycle needs of the giant garter snake. All the land that makes up the upper GGS/Drainage Canal is in NCMWC's agricultural irrigation service area, and SAFCA will obtain the right for RD 1000 to take deliveries of water to the canal from NCMWC's Elkhorn Reservoir. A variety of water-control structures will be installed in the canal to allow RD 1000 to maintain the targeted water elevations.

Because water-level management is critical to vegetation development and management, water-control structures and berms constructed to hold water must be properly maintained to ensure effective water management. Flashboard risers, overflow weirs, rocked constriction points, and canal gate water control structures will be used to regulate water delivery throughout the GGS/Drainage Canal, Riverside Canal, and Elkhorn Canal.

7.2 ACCESS ROADS, GATES, FENCES AND SIGNS

To conduct the operations and maintenance necessary to ensure the functionality of the canal improvement and habitat compensation sites, maintenance access roads must be constructed and maintained. These access roads may be covered by natural vegetation, such as grasses or other groundcover, or they may be constructed using aggregate base materials to allow for all-weather access so that appropriate maintenance actions may be taken during emergencies or inclement weather. In addition, it is anticipated that gates may be necessary at points of ingress to and egress from the canal improvement and habitat compensation sites to prevent unauthorized vehicles from entering the sites and damaging habitat or the protected species. Limited fencing may also be necessary at strategic locations to prevent unauthorized access. Informational signage also will be needed to notify the public of the sensitive nature of the canal improvement and habitat compensation sites and to prevent trespassing. The ongoing maintenance of these facilities will be the responsibility of the land manager, as described below.

7.2.1 MAINTENANCE ACCESS ROADS

Maintenance access roads left in a natural vegetated state with grasses or other ground cover will be mowed as described in SSMPs. The vegetation will be mowed to leave the access roads clean of cover to allow for maximum visibility for giant garter snakes, birds, or other species that could be harmed by maintenance vehicles. When access roads become unstable, rough, or damaged because of use over time, they will be regraded using a grader, dozer, or a blade attached to another piece of construction equipment. This activity normally will be limited to the period between May 1st and October 1st, when the giant garter snake is most active and can escape the operations.

Maintenance access roads graded with aggregate base will be regraded as needed due to normal wear or if damaged (such as by unauthorized four-wheel-drive vehicles). In some cases, regrading will require that additional aggregate base materials be imported and spread with a grader, dozer, or a blade attached to another piece of construction equipment. The speed limit on maintenance access roads adjacent to canals will be 25 miles per hour.

7.2.2 GATES

Gates may be necessary at ingress and egress locations to reduce unauthorized access to the canal improvement and habitat compensation sites. They will be fabricated out of steel tubing and attached to posts that are anchored into the ground with concrete. Gates may need to be serviced or replaced if damaged or worn. Maintenance may be carried out throughout the year as necessary. Replacement of gates will be accomplished using a small truck-mounted auger and concrete either delivered to the site in a trailer or hand-mixed on-site with a small concrete mixer.

7.2.3 FENCES

Fencing may be necessary at ingress and egress points and other strategic locations to reduce unauthorized access to the canal improvement and habitat compensation sites. It may be welded wire mesh, barbed wire, post and cable, or other suitable materials necessary to limit access, especially motorized vehicles, such as four-wheel-drive vehicles, all-terrain vehicles, and motorcycles. Maintenance of the fences normally will be limited to their repair or replacement when damaged or otherwise worn. Maintenance may be carried out throughout the year as necessary.

7.2.4 SIGNAGE

Signage may be needed to provide educational information to the public on the benefits provided by the canal improvement and habitat compensation sites and to notify the public that trespassing is prohibited. These signs may be posted at points of ingress and egress or at public access roads. Maintenance normally will be limited to the replacement of damaged or worn signs. Maintenance may be carried out throughout the year as necessary.

7.3 UTILITIES

A number of public and private utilities (e.g. underground pipelines, overhead power lines, wells) and utility easements are located in, adjacent to, or in the vicinity of the canal improvement and habitat compensation sites. Any required maintenance or replacement of utilities in the canal improvement and habitat compensation sites will be restricted to the minimum area needed to accomplish the task. Any utility provider performing maintenance or replacement of utilities will be required to meet all Resource Agency notification and permitting

requirements described in this LTMP. Utility providers will coordinate with the landowner and land manager of the canal improvement and habitat compensation sites when conducting maintenance or replacement activities.

8 TRANSFER, REPLACEMENT, AMENDMENTS, AND NOTICES

8.1 TRANSFER

Any proposed transfer of responsibilities under this LTMP to a different land manager shall be submitted in writing by SAFCA to the Resource Agencies; the transfer shall require written approval by the Resource Agencies, and shall be incorporated into this LTMP by amendment.

8.2 REPLACEMENT

SAFCA shall be responsible for the performance of the land manager. If a land manager fails to implement the tasks described in this LTMP and SAFCA is notified of such failure in writing by any of the Resource Agencies, SAFCA shall have 90 days to work with the land manager to resolve such failure. If failure is not remedied within 90 days, SAFCA may request a meeting with the Resource Agencies to resolve the matter . Such meeting shall occur within 30 days or a longer period if approved by the Resource Agencies. Based on the outcome of the meeting, or if no meeting is requested, the Resource Agencies may require SAFCA to designate a replacement land manager acceptable to the Resource Agencies in writing by amendment of this LTMP. If SAFCA fails to designate an acceptable replacement land manager, then a public or private land or resource management organization acceptable to and as directed by the Resource Agencies may enter onto the canal improvement and habitat compensation sites to fulfill the purposes of this LTMP at SAFCA's expense.

8.3 AMENDMENTS

SAFCA, the land manager, and the Resource Agencies may meet and confer from time to time, upon the request of any one of them, to revise this LTMP to better meet management objectives and preserve the habitat and conservation values of the canal improvement and habitat compensation sites. Any proposed changes to this LTMP or the SSMPs shall be discussed by and be acceptable to all of the parties . Amendments to this LTMP or the SSMPs shall be approved by the Resource Agencies in writing, shall be required management components, and shall be implemented by the land manager.

If either DFG or USFWS determines, in writing, that an activity being carried out pursuant to this LTMP would jeopardize the continued existence of a State-listed or Federally listed species, then either DFG or USFWS may require a written amendment of this LTMP as necessary to avoid jeopardy. SAFCA shall accept any such amendment and shall incorporate the amendment into SAFCA's agreement with the land manager.

8.4 NOTICES

Any notices regarding this LTMP shall be directed to the following, as appropriate.

8.4.1 LAND MANAGERS

Reclamation District 1000
1633 Garden Highway
Sacramento, CA 95833-9706
Contact: General Manager
(916) 922-1449

The Natomas Basin Conservancy
1750 Creekside Oaks Drive, Suite 290
Sacramento, CA 95833
Contact: Executive Director
(916) 647-3331

Natomas Central Mutual Water Company
2601 West Elkhorn Boulevard.
Rio Linda, CA 95673
Contact: General Manager
(916) 419-5936

8.4.2 PROPERTY OWNERS

Sacramento County
Sacramento County Airport System
6900 Airport Boulevard
Sacramento, CA 95837
Contact: Senior Environmental Analyst
(916) 874-0698

Sacramento Area Flood Control Agency
1007 Seventh Street, Seventh Floor
Sacramento, CA 95814
Contact: Natural Resources Supervisor
(916) 874-7606

8.4.3 RESOURCE AGENCIES

U.S. Army Corps of Engineers

Sacramento District

1325 J Street, Room 1480

Sacramento, CA 95814-2922

Attn: Chief, Regulatory Division

Telephone: 916 557-5250

Fax: 916 557-6877

U.S. Fish and Wildlife Service

Sacramento Fish and Wildlife Office

2800 Cottage Way, Room W-2605

Sacramento, CA 95825

Attn: Deputy Field Supervisor

Telephone: 916 414-6600

Fax: 916 414-6712

California Department of Fish and Game

North Central Region

1701 Nimbus Road

Rancho Cordova, CA 95670

Attn: Regional Manager

Telephone: 916 358-2899

Fax: 916 358-2912

9 FUNDING MECHANISM AND OTHER ASSURANCES

Funding for the various components will be implemented through management agreements negotiated by SAFCA with TNBC (rice fields, agricultural uplands, and landside woodlands), RD 1000 (GGS/Drainage Canal management, native perennial grasslands on flood damage reduction footprint), NCMWC (water), and a third party entity (upper GGS/Drainage Canal monitoring) (**Appendices B6, B7, and B8)**. The irrigation water delivery costs will be estimated by NCMWC, based on its experience in providing irrigation water to similar habitat areas being managed as part of the Natomas Basin HCP. Funding amounts for TNBC will be estimated based on a the Natomas Basin HCP Finance Model developed by Economic & Planning Systems (EPS) for all the costs it would assume under its agreement with SAFCA (**Appendix B6**). A detailed Property Analysis Record (PAR) will be used to determine funding amounts required for RD 1000 maintenance and management costs, and the third party entity monitoring costs for the upper GGS/Drainage Canal they would assume under agreements with SAFCA (**Appendix B7**). A PAR is generated through the use of a computer program written by the Center for Natural Lands Management to allow land trust and preserve management foundations and organizations to better define and understand the financial obligations that come with managing natural areas; the Natomas Basin HCP Finance Model developed by EPS is similar. The programs list a number of activities, structures, and overhead costs associated with mitigation site management and allows the user to choose the tasks that apply. These costs are then tabulated and used for budgeting purposes. All funding for monitoring and managing the canal improvement and habitat compensation sites relies on appropriations from the Consolidated Capital Assessment District (CCAD) and the Operation and Maintenance Assessment District assessments. These are described below in more detail.

9.1 ASSESSMENT DISTRICTS

9.1.1 CONSOLIDATED CAPITAL ASSESSMENT DISTRICT

The CCAD was created in April 2007 by a vote of property owners occupying the American and Sacramento River floodplains in the Sacramento area. The purpose of the CCAD is to fund the local share of the cost of constructing, operating, and maintaining the projects that are necessary to provide the Sacramento area with at least a 200-year level of flood protection. Under the terms of the final engineer's report adopted in connection with the CCAD, SAFCA is authorized to collect special benefit assessments from the properties in the district through 2037. These assessments must be used to support construction of the improvements identified in the final engineer's report, including the improvements associated with the Landside Improvements Project. A portion of the assessment revenue is specifically allocated to the cost of operating, maintaining, and managing the constructed improvements, including mitigation features.

9.1.2 OPERATION AND MAINTENANCE ASSESSMENT DISTRICT

The CCAD will terminate in 2037, after which any funding for the canal improvement and habitat compensation sites, and specifically RD 1000 and NCMWC, will be covered by assessments collected as part of SAFCA's existing Operation and Maintenance Assessment District which was formed in 1991 and will exist for an unlimited period with no termination date.

9.2 FUNDING AGREEMENT FOR THE NATOMAS BASIN CONSERVANCY

TNBC will hold the conservation easement for several of the habitat compensation sites, including giant garter snake rice fields, agricultural uplands, landside woodlands, and managed marsh. In addition, TNBC will oversee, monitor, and assist in administering the components of the grasslands on the flood damage reduction footprint. SAFCA will make annual appropriations from CCAD assessments to cover TNBC's management costs through 2037, and will make a single lump-sum payment into a nonwasting endowment fund in 2009, funded by CCAD assessment. Compounding interest earnings from 2009 through 2037 will provide full funding of the endowment in 2038. Interest earned on this account will cover the annual payments due to TNBC under the agreement. An endowment agreement details the structure and mechanism of this endowment.

9.3 FUNDING AGREEMENT FOR RECLAMATION DISTRICT 1000

RD 1000 will manage both the GGS/Drainage Canal and the native perennial grasslands on the flood damage reduction footprint, as described under its management agreement with SAFCA (**Appendix B7**). Funding for this agreement will be provided annually from CCAD assessments through 2037 and thereafter from assessments collected as part of SAFCA's Operation and Maintenance Assessment District. To ensure timely payment for the services rendered under these agreements, SAFCA will maintain reserve accounts with balances sufficient to support annual funding for 2 years of the agreement.

9.4 FUNDING AGREEMENT FOR NATOMAS CENTRAL MUTUAL WATER COMPANY

Water supplies for the new GGS/Drainage Canal, rice fields, agricultural uplands, and managed marsh will be provided by NCMWC under existing landowner/shareholder rights acquired by SAFCA or under a long-term water purchase agreement negotiated between SAFCA and NCMWC. Funding for this agreement will be provided annually from CCAD assessments through 2037 and thereafter from assessments collected as part of SAFCA's Operation and Maintenance Assessment District. To ensure timely payment for the services rendered under these agreements, SAFCA will maintain reserve accounts with balances sufficient to support annual funding for 2 years of the agreement.

9.5 FUNDING AGREEMENT FOR THE THIRD PARTY ENTITY

A third party entity will monitor the GGS/Drainage Canal and RD 1000 operations and maintenance or the GGS/Drainage Canal, as described under its management agreement with SAFCA. Funding for this agreement will be provided annually from CCAD assessments through 2037 and thereafter from assessments collected as part of SAFCA's Operation and Maintenance Assessment District. To ensure timely payment for the services rendered under these agreements, SAFCA will maintain reserve accounts with balances sufficient to support annual funding for 2 years of the agreement.

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APPENDIX A

Site Specific Management Plans

A1 Upper GGS/Drainage Canal Site Specific Management Plan

A1 Upper GGS/Drainage Canal Site Specific Management Plan

APPENDIX A1 – DRAFT
UPPER GGS/DRAINAGE CANAL
SITE SPECIFIC MANAGEMENT PLAN

This site specific management plan (SSMP) has been prepared for the Sacramento Area Flood Control Agency (SAFCA), and provides the long-term maintenance and monitoring activities for the upper GGS/Drainage Canal, constructed during Phase 2 of the Natomas Levee Improvement Program (NLIP) Landside Improvements Project (Project). This SSMP was prepared as an appendix to the NLIP Landside Improvements Project Programmatic Long-Term Management Plan (LTMP). Implementation of this SSMP must adhere to the requirements of the LTMP and the drainage canal easement between Sacramento County and SAFCA, and management agreement between SAFCA and Reclamation District 1000 (RD 1000) (Appendices B1, B7).

SITE DESCRIPTION

The construction of the GGS/Drainage Canal will occur over two Project phases. In Phase 2, the upper GGS/Drainage Canal will be constructed between the North Drainage Canal and the Elkhorn Reservoir; and in Phase 3, the lower GGS/Drainage Canal will be constructed between the Elkhorn Reservoir and the West Drainage Canal. The purpose of the GGS/Drainage Canal is to facilitate reconfiguration of the Airport West Ditch and abandonment of the off-site irrigation and drainage functions currently provided by the Airport West Ditch so as to reduce aviation safety hazards identified by the Federal Aviation Administration (FAA). The GGS/Drainage Canal is also expected to provide a continuous north-south aquatic habitat corridor between the North Drainage Canal (in the northern area of the Natomas Basin) and Fisherman's Lake (in the southern area of the Natomas Basin) to allow giant garter snake migration, habitat connectivity, gene pool exchange, and population resilience in the greater Natomas Basin. Water will flow in a south to north direction in the upper GGS/Drainage Canal, from Elkhorn Reservoir to the North Drainage Canal, and in a north to south direction in the lower GGS/Drainage Canal, from Elkhorn Reservoir to the West Drainage Canal (see Exhibits 2-2a through 2-2d in the LTMP).

The 11,800-foot (2.2 mile) upper GGS/Drainage Canal being constructed during Phase 2 of the Project is north of Elkhorn Reservoir and will be parallel to and approximately 30 feet west of the new Elkhorn Irrigation Canal. North of Reservoir Road the canal will be set back a minimum of 200 feet from the projected levee toe. The majority of land designated for construction of the upper GGS/Drainage Canal during Phase 2 of the Project is on property owned by Sacramento County, and managed by the Sacramento County Airport System (SCAS).

The upper GGS/Drainage Canal will be constructed with 3H:1V bank slopes (see Exhibit 3-1 in the LTMP), thus requiring less frequent dredging, bank repair, and bank disturbance. The gentle side slopes will facilitate the shoreline growth of freshwater marsh plants, including plantings of native sedges and rushes that will provide habitat for giant garter snake. Upper canal banks will be planted with native perennial grasses to provide better

cover for giant garter snake, discourage weeds, and reduce the frequency of disturbance to bank vegetation. Specialized equipment and vehicles, such as a large hydraulic-arm excavator, will be used to increase the efficiency and ease of canal maintenance and reduce or eliminate the need to drag a bucket, scraper, or V-plow on canal banks. Giant garter snake hibernacula (rock piles keyed into the bank), about 50 feet long, will be placed along the canal bank slopes approximately every 300-500 feet (see Exhibit 2-3 in the Phase 2 MMP [SAFCA 2009]).

The upper GGS/Drainage Canal will be excavated 6–7 feet below existing grade, will have a 10 to 12-foot-wide bottom width, and will have a top bank flush with the existing ground surface. A series of check structures, each with a drop of approximately one foot, will be constructed along the length of the canal to maintain consistent water levels in the canal during the snake's active season (May 1st through October 1st). The areas around the water control structures will be planted with the same type of vegetation as the rest of the canal to provide cover for giant garter snakes as they pass the structure. Water will be provided from the Natomas Central Mutual Water Company (NCMWC) irrigation system. SAFCA will retain existing groundwater wells and pumping facilities and install new groundwater wells to ensure access to water supplies in the event of NCMWC water shortages or other service interruptions. Water depth in the canal is designed to be 4.5 feet ± 0.5 feet, which will help to minimize excessive growth of tules and other submerged aquatic weeds in the bottom of the channel. Water will flow at an estimated 5 cubic feet per second (cfs) to prevent eutrophication and anaerobic conditions. A maintenance right of way approximately 20 feet wide (including a dirt access road) will be constructed on one side of the canal between the GGS/Drainage Canal and the adjacent Elkhorn Irrigation Canal (see Exhibit 3-1 in the LTMP). A 10 foot wide upland native grassland easement will be maintained on the other, landward side of the canal.

RESPONSIBILITIES AND DISPUTE RESOLUTION

This section identifies and provides contact information for the land owners and land managers responsible for maintaining and monitoring the upper GGS/Drainage Canal in perpetuity. This section also describes the land owners' and land manager's responsibilities set forth in the easements and management agreements for the upper GGS/Drainage Canal.

LAND OWNER AND LAND MANAGER RESPONSIBILITIES

The upper GGS/Drainage Canal is located within the bufferlands surrounding Sacramento International Airport (Airport) on property owned by Sacramento County and SAFCA. SAFCA will acquire a Perpetual Drainage Canal Easement (Canal Easement) (Appendix B1) from Sacramento County that will enable SAFCA to construct and manage the upper GGS/Drainage Canal consistent with the terms of the Canal Easement and the permits issued by the regulatory agencies. SAFCA will convey appropriate real estate rights to RD 1000 under a terminable management agreement (Appendix B7). RD 1000 will operate and maintain the upper segment of the

GGS/Drainage Canal in accordance with the terms, conditions, and restrictions of the Canal Easement, the terminable management agreement, the LTMP, and this SSMP. SAFCA will record deed restrictions on its two parcels that a portion of the upper GGS/Drainage Canal will be built on. The Canal Easement and deed restrictions shall ensure that the upper GGS/Drainage Canal will be used for drainage and irrigation, flood control, habitat creation, maintenance, and preservation purposes.

Sacramento County and SAFCA have designated RD 1000 as land manager and the U.S. Fish and Wildlife Service (USFWS) as third-party beneficiary. A third party entity will be responsible for monitoring the upper GGS/Drainage Canal for compliance with terms and conditions of the easements and management agreements, the LTMP, and this SSMP.

LAND OWNERS

Sacramento County
Sacramento County Airport System
6900 Airport Boulevard
Sacramento, CA 95837
Contact: Senior Environmental Analyst
(916) 874-0698

Sacramento Area Flood Control Agency
1007 Seventh Street, Seventh Floor
Sacramento, CA 95814
Contact: Natural Resources Supervisor
phone number: (916) 874-4581

LAND MANAGER

Reclamation District 1000
1633 Garden Highway
Sacramento, CA 95833-9706
Contact: General Manager
(916) 922-1449

THIRD-PARTY BENEFICIARY

U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, CA 95825
Contact: Deputy Field Supervisor
Telephone: 916 414-6600
Fax: 916 414-6712

EDUCATION PROGRAM

A third party entity, in cooperation with the resource agencies, will develop an education and awareness program to educate RD 1000 personnel about best management practices for avoiding and minimizing impacts to giant garter snake and its habitat ,and other potentially affected aquatic and upland species and their habitats, that could occur during routine canal maintenance activities. The education and awareness program will include: how to recognize giant garter snakes, basic life history requirements and critical habitat criteria for giant garter snake, information on how to distinguish burrowing owl dens from rodent burrows, and avoidance measures for nesting and fledgling periods for avian species that utilize emergent aquatic vegetation. RD 1000 will require existing and new operation and maintenance employees (when hired) to attend the education and awareness program.

DISPUTE RESOLUTION

If a dispute arises between the land owner and land manager concerning the consistency of any past, ongoing or proposed activity on the upper GGS/Drainage Canal, an attempt to resolve the dispute shall be made following the mediation procedures agreed to in the Canal Easement (Appendix B1) and terminable management agreement (Appendix B7).

DESIRED FUNCTIONS AND CONDITIONS

HABITAT OBJECTIVES AND VIABILITY

Improved slope grading and a bank vegetation management program designed to optimize habitat quality and eliminate or reduce the frequency of bank disturbance will provide continuous, high-quality shoreline cover and feeding and rearing area for giant garter snake and other semi-aquatic species. Corridors with high-quality managed canal habitat will substantially enhance the viability, resilience, and gene pool exchange of giant garter snake populations. The canal has also been designed to reduce the frequency and extent of maintenance disturbance to canal bed and banks, which will benefit the targeted species over the long-term.

The Natomas Basin HCP's conservation objectives for the giant garter snake and other covered species dependent on similar habitat are set forth in Section I.C.1 of the Natomas Basin HCP (City of Sacramento, Sutter County, and The Natomas Basin Conservancy 2003). The conservation strategy for giant garter snakes and other wetland-associated species, such as the western pond turtle, is discussed in Section IV.C.3 of the Natomas Basin HCP. Consistent with this strategy, the upper and lower GGS/Drainage Canal is designed to ensure and maintain the long-term integrity of the Natomas Basin giant garter snake population by providing a perpetual population dispersion corridor linking The Natomas Basin Conservancy's (TNBC) conservation lands in the vicinity of Fisherman's Lake to its conservation lands in Sutter County north of the Airport.

HYDROLOGY AND WATER QUALITY

In addition to the wetland and giant garter snake habitat functions described above, the created upper GGS/Drainage Canal will serve as a secondary source or pass-through of surface irrigation water for agricultural purposes. Canal flow, estimated to be 5 cfs, will drain into collector canals managed by NCMWC for their reuse. The upper GGS/Drainage Canal will also accommodate conveyance of local, surface stormwater drainage from adjacent fields, TNBC lands and Airport fallow lands (i.e., North Bufferlands). As an unlined canal (i.e., permeable earth banks and bed), the upper GGS/Drainage Canal will contribute to incidental groundwater recharge.

CANAL MANAGEMENT ACTIVITIES

Location of Maintenance Operations. RD 1000 shall limit upper GGS/Drainage Canal maintenance activities (i.e., excavation, sediment removal, and/or resloping of channel banks) during any calendar year to not more than twenty-five percent of the total length of the upper and lower GGS/Drainage Canal, except in an emergency as defined in Section 5.8 of the LTMP. Removal of aquatic biomass from the upper GGS/Drainage Canal by RD 1000 and agents under its direct control and acting on its behalf, by either physical or mechanical means, shall be exempt from the twenty-five percent rule. Aquatic biomass (invasive, noxious aquatic weeds) removal that does not disturb canal banks, will be allowed whenever such biomass causes a substantial (>10%) reduction in the carrying capacity of the upper GGS/Drainage Canal. Surface organic debris and excessive aquatic biomass can cause movement barriers to giant garter snake, and contributes to anaerobic conditions as it decomposes. Resloping canal banks by RD 1000 and agents under its direct control and acting on its behalf, will be restricted to one side of the upper GGS/Drainage Canal in a given location during any calendar year. Where such work cannot be performed with water in the canal, restrictions for timing of activities or resloping only one side of the upper GGS/Drainage Canal may not apply if modification of the canal is necessary to maintain or restore its original line, grade, hydraulic capacity, and/or its biological and drainage purposes and functions.

Timing of Selected Maintenance Activities Outside of Work Window for Giant Garter Snake. Sediment removal, resloping, and reconstruction of the GGS/Drainage Canal are maintenance activities which are best performed under dewatered conditions, outside of the designated giant garter snake's active season (May 1st through October 1st). If necessary, some activities may be carried out under watered conditions during the giant garter snake's active season using laser guided equipment to avoid the side slopes. Prior to initiating these activities, RD 1000 will verify that no giant garter snakes are present in the work area. Additionally, RD 1000 will create an internal project development process resulting in the preparation of an annual maintenance project plan. This process will involve an annual assessment of canal deficiencies, the identification of environmental constraints, and preparation of an annual maintenance project plan. RD 1000 will develop and implement a biological-based zoning scheme to plan and carry out its maintenance activities based on input from qualified biological consultants. The zoning scheme will be subject to reasonable approval by a third party entity. No project work will be performed during the months of November, December, January, or February to avoid disturbance to giant garter snakes during their least active, and most vulnerable, period. RD 1000 will provide a summary of projects completed during the year in its annual report to a third party entity. Proposals to dewater or make substantial repairs to the canal during May 1st and October 1st (giant garter snake active season) must be reported to and discussed with SAFCA, the biological monitor, and USFWS at least two months in advance before work can commence. (See protocols described in more detail below.).

WATER LEVEL MANAGEMENT AND WATER SUPPLY

The GGS/Drainage Canal will be excavated 6 to 7 feet deep, will have a 10 to 12-foot-wide bottom width, and will have a top bank flush with the ground surface. Water will be provided from the NCMWC irrigation system, or from groundwater wells located on SAFCA property. Water depth in the canal is designed to be 4.5 feet ± 0.5 feet, which will minimize tule growth and other submerged aquatic weeds. Water will flow at an estimated 5 cubic feet per second to avoid eutrophication and anaerobic conditions.

DEBRIS AND SEDIMENT REMOVAL

Debris and sediment removal is defined as the act of removing accumulated earthen matter (soil, mineral particles, and/or organic debris) that accumulates in the upper GGS/Drainage Canal. Suspended matter may gradually drops out of suspension as it moves through the upper GGS/Drainage Canal, thereby creating a layer of organic and fine mineral sediment that decreases canal capacity and adversely affects water flows. This material may enter the system through any one of the following avenues:

- Deposition of suspended sediment introduced into the system by the water pumped into the upper GGS/Drainage Canal from NCMWC's diversion facilities on the Sacramento River;

- Material eroded from the banks of the upper GGS/Drainage Canal caused by erosion during high flows in the canal and from high groundwater induced pore pressure on canal banks (Note that bank erosion and slumpage will be substantially less common with 3H:1V slopes and a wider canal);
- Suspended sediment that settles in the canal bottom from recycled drain water discharged into the upper GGS/Drainage Canal, primarily tailwater from local agricultural operations; or
- Degradation of aquatic vegetative mass which decomposes and collects at the bottom of the canal, thereby reducing capacity.

Sediment removal will be accomplished with the use of special equipment (e.g., long armed backhoe or hydraulic arm excavator) designed to avoid or minimize side slope disturbance. Proper positioning of the equipment while working from the maintenance road will be critical to avoiding and minimizing side slope disturbance. Disposal of the excavated earthen matter will be accomplished by either placing it in the operation and maintenance road or hauling it to a designated storage site. When spoils are placed in the operation and maintenance road, the spoils may allowed to dry and then be graded so that they become an integral part of the road, or later removed to an off-site location.

Sediment removal is warranted whenever accumulation has caused a significant decrease in the capacity of a particular reach of the upper GGS/Drainage Canal. Sediment removal is undertaken during periods when the canal has been dewatered, if possible, and the canal invert is visible and dry enough to work without damaging the side slopes. Water may be absent from the canal at various times from October 1st to May 1st depending on weather conditions. The upper GGS/Drainage Canal is designed to minimize maintenance requirements; therefore, it is expected that sediment removal will occur every three (3) to five (5) years. However, the frequency of sediment removal will depend on sediment build up, which in turn is dependent on a number of factors, including precipitation, river stages, and groundwater conditions that cannot be accurately predicted. The scheduling of sediment removal is based on observations by RD 1000 field staff of canal capacity by reach including an end of season assessment.

The removal of sediment under watered conditions is more difficult because of potential resuspension during the operation. Additionally, sediment removal under watered conditions may cause undercutting and sloughing of the canal side slopes. Therefore, sediment removal activities should be scheduled for periods when the upper GGS/Drainage Canal has been dewatered, if possible. At times, climate conditions, unusual water years or other circumstances may not allow for the canal to be dewatered during the normal time for sediment removal operations. If these operations are carried out under watered conditions, available survey technology (including laser guided excavation operations) shall be employed to reasonably avoid damage to the side slopes.

CONSERVATION MEASURES TO AVOID OR MINIMIZE POTENTIAL IMPACTS TO SPECIES

Giant garter snakes and northwestern pond turtles could be affected whenever work is undertaken along the upper GGS/Drainage Canal. Disturbance activities (e.g., resloping, mechanical vegetation removal) could result in the loss of vegetative cover, small mammal burrows, and soil crevices that provide escape cover from predators and thermal stress.

Giant garter snakes could be adversely impacted during sediment removal operations, especially if they are conducted during the inactive season when snakes are below ground in hibernation. Death, injury, harassment, and/or displacement of individual snakes may result during the removal of sediment and reshaping of the side slopes. During the cooler winter months, snakes have lower body temperatures and cannot move away from the source of disturbance as quickly as they can during the active season. Underground burrows could collapse or sealed as a result of the placement of spoils and grading on the maintenance road, thereby entrapping any snakes that may be present. Reshaping or placing spoils on top of side slopes could also obscure or eliminate the surface vegetation that provides snakes with basking habitat and refuge from predators.

To avoid or minimize the potential impacts to giant garter snakes during sediment and debris removal operations, RD 1000 shall adhere to the protocol for location, timing, and maintenance activities described above.

Burrowing owls may also be adversely impacted if sediment removal operations are conducted in a section of the upper GGS/Drainage Canal that supports an occupied burrow. A nesting pair of owls or their young may be especially prone to disturbance if sediment removal is conducted during the spring or summer months; however, individual owls may occupy burrows year round. Heavy equipment used for sediment removal and reshaping of side slopes could result in the collapse of existing burrows and entrapment of an owl(s), resulting in death.

Prior to the initiation of grading or earth disturbing activities in the upper GGS/Drainage Canal during the burrowing owl nesting season (February 1st through August 31st) that could result in the collapse of an occupied burrow, RD 1000 shall perform a pre-construction survey of the site to determine if any burrowing owls or signs of occupancy (e.g., pellets, whitewash, prey remains, or feathers) are present. If burrowing owls are present, conservation measures as outlined herein shall be followed.

- Occupied burrows shall not be disturbed during the nesting season unless a qualified biologist verifies through non-invasive measures that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrow are foraging independently and are capable of independent survival.

- If a nest site is found, it will be flagged and all RD 1000 field personnel will be notified. RD 1000 will avoid grading or other earth disturbing activities within 100 feet of the occupied burrow during the nesting season. A relocation effort may be undertaken if the owls have not begun egg-laying and incubation or if the juveniles

from the occupied burrow are foraging independently and are capable of independent survival. If on-site avoidance is required, the boundaries of the avoidance zone will be determined by a qualified biologist.

- RD 1000 shall not conduct routine maintenance activities, such as mowing, vegetation trimming, access road, gate, or fence repairs, and vehicular access, within 100 feet of a previously flagged nest site until a visual survey of the surrounding area has been made to verify that no burrowing owls will be harmed by such maintenance activity.

- If relocation of the owls is necessary to facilitate a capital improvement project that is proposed by RD 1000, RD 1000 shall hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan will include: (a) the location of the nest and owls proposed for relocation; (b) the location of the proposed relocation site; (c) the number of owls involved and the time of year when the relocation is proposed to take place; (d) the name and credentials of the biologist who will be retained to supervise the relocation; (e) the proposed method of capture and transport of the owls to the new site; (f) a description of site preparations at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control, etc.); and (g) a description of proposed efforts and funding to monitor the relocation. Relocation options may include passive relocation to a nearby area not subject to disturbance by installing one-way doors on burrow openings, or construction of artificial burrows in accordance with the California Department of Fish and Game's October 17, 1995, Staff Report on Burrowing Owls Mitigation.

Sediment removal operations would not adversely affect Swainson's hawks because they nest in trees and typically forage in open grasslands or agricultural fields. Potential impacts to Swainson's hawks are mostly likely to occur within 0.25 mile of an active nest between March 15th and August 15th, when nest establishment is underway, and when eggs and/or young are in the nest. Most Swainson's hawk young in the Natomas area fledge by mid-August. However, canal maintenance by RD 1000 is a routine agricultural activity. In addition, the replacement irrigation and giant garter snake canals will be located at a greater distance from the waterside riparian forest where most Swainson's hawk nests are present in the project corridor.

However, large projects that require the use of heavy equipment, extensive disturbance and prolonged construction activity must adhere to the following restrictions on construction during the Swainson's hawk nesting season.

- Prior to the commencement of large scale grading or earth disturbing activities associated with capital improvements, RD 1000 shall complete a pre-construction survey to determine whether any Swainson's hawk nest trees will be removed from the project site, or whether any active Swainson's hawk nest sites are located within 0.5 mile of the project site. These surveys shall be conducted according to the Swainson's Hawk

Technical Advisory Committee's (May 31, 2000) methodology or updated methodologies, as approved by the Wildlife Agencies using experienced Swainson's hawk surveyors.

- If breeding Swainson's hawks (i.e., exhibiting nest building or nesting behavior) are identified, no new disturbances (e.g., heavy equipment operation associated with construction) shall occur within 0.5 mile of an active nest during the nesting season or until a qualified biologist has determined that the young have fledged or that the nest is no longer occupied. Alternatively, the activity may proceed if a qualified biologist determines that the birds are not being disturbed by the activity. If the active nest site is located within 0.25 mile of existing urban development, the "no new disturbance" zone can be limited to the 0.25 mile versus 0.5 mile. A biological monitor shall be available to monitor the nest and ensure that the nesting birds are not disturbed by such activities. Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within 0.5 mile of an active nest are not restricted.

- Where disturbance to a Swainson's hawk nest cannot be avoided, such disturbance shall be temporarily avoided (i.e., defer construction activities until after the nesting season or at least until later in the nesting cycle, such as after July 15th, when the adults are less likely to abandon the nest), unless a qualified biologist determines that the birds are not being disturbed by the activity. If a nest tree must be removed, it will be taken out or destroyed during the non-nesting season only.

- If a Swainson's hawk nest tree is to be removed and fledglings are present, the tree may not be removed until after August 15th or until a qualified biologist has determined that the young have fledged and are no longer dependent upon the nest tree.

- If construction or other project-related activities which may cause nest abandonment or forced fledging are proposed within the 0.25 mile buffer zone, monitoring by a qualified biologist will be required. Implementation of this measure will be based on specific information regarding the project site.

- If a nest is abandoned or young fledge prematurely due to construction activities or other disturbances caused by RD 1000 or its agents or contractors, RD 1000 will accept responsibility to contact the appropriate authority to secure the juvenile and safely transport it to the local raptor center in Davis. All expenses associated with this incident will be borne by RD 1000 and reimbursed to RD1000 by SAFCA.

Sediment removal operations would not adversely affect tricolored blackbirds unless a nesting colony of tricolors was present in emergent or bank side vegetation that was being removed, especially during the nesting season (April 1st to July 1st) or while birds are present. If sediment operations will be conducted during the tricolored blackbird nesting season, RD 1000 shall perform a pre-construction survey of potential breeding and nesting habitat for the presence of breeding and nesting tricolored blackbirds prior to grading or earth disturbing activities

If surveys determine that tricolored blackbirds are present, no such activities within 200 feet of an active colony will occur during the nesting season.

Travel and working conditions are adversely affected by inclement weather and wet soil conditions. Sediment removal operations cannot normally be performed during the winter (November to February) because unfavorable conditions (i.e., precipitation, inaccessible roads, or unstable access). Some canal maintenance roads may be elevated above field grade and topped with compacted gravel sufficient to allow for winter use.

BANK EROSION CONTROL

Resloping is defined as the act of re-establishing the original line and grade of the side slopes of the upper GGS/Drainage Canal and excavating slumped soil accumulated at the toe of the slope. This activity is performed for the purpose of restoring the canal's original design profile and cross section, carrying capacity, and structural integrity. Erosion and mammal disturbance are likely to be the primary agents responsible for the deterioration of water-side canal slopes. Erosion is typically caused by extended periods of high flow in the canal due to stormwater runoff. In addition, sloughing of canal banks is frequently caused by high groundwater conditions that are present throughout the Natomas Basin, particularly adjacent to the Sacramento River. This deterioration will become evident in the form of sloughing and slumping of the canal side slopes, limiting the canal's carrying capacity and decreasing the structural integrity of the banks.

Upper GGS/Drainage Canal resloping will be done mechanically with the use of either a backhoe or hydraulic arm excavator working from either side of the canal. Spoils may be used to backfill eroded banks, placed in the operation and maintenance road along the upper edge of the side slope, and/or hauled to a designated storage area, as described in the Disposal of Canal Spoils section above. Where deterioration of a canal side slope is severe, the affected slope may be regraded and recompacted using a dozer and compaction wheel. GGS/Drainage Canal bank resloping activities will result in the removal of vegetation during excavation and placement operations.

Resloping of waterside slopes of the upper GGS/Drainage Canal will be conducted when the canal is dewatered and the canal invert is visible. It is not possible to place and compact soil material on side slopes under watered conditions. Water may be absent from the upper GGS/Drainage Canal at various times from October through February depending on weather conditions. Under watered conditions, the placement of large diameter rock (6- to 12-inch) has proven to be effective in reducing erosion and sloughing by stabilizing the normally submerged portion of the side slopes. This work is accomplished by placing rock at the bottom of the canal slope with an excavator and "tamping" the rock into the slope toe using the bucket of the excavator. The scheduling of canal resloping activities is dependent on observations made by field personnel and an end-of-season assessment by RD 1000's Field Superintendent. However, this activity should not be carried out from November through February

when the giant garter snake is most vulnerable, unless there is an emergency as described in Section 5.8 of the LTMP.

No plastic, monofilament, jute, or similar erosion control matting that could entangle snakes shall be placed by RD 1000 or its agents or contractors in or within 200 feet of the upper GGS/Drainage Canal area. Possible substitutions include coconut coir matting, straw, tackified hydro seeding compounds, or other material approved by the resource agencies.

Conservation Measures to Avoid or Minimize Potential Impacts to Species

The potential effects that resloping may have on giant garter snake and other species are similar to impacts caused by sediment and debris removal, described above. In addition, temporary disturbances (e.g., stockpiling dredged materials) to upland habitats adjacent to the canal may disrupt the movement of giant garter snakes and cause them to move into areas of unsuitable habitat where they may experience a greater risk of predation or other sources of mortality. Adhering to the conservation measures described above for sediment and debris removal, as well as the protocol for location, timing, and maintenance activities described above will support avoidance or minimize potential impacts to species.

Disposal of Canal Spoils

Spoil material removed from the upper GGS/Drainage Canal during sediment removal or resloping operations must be disposed of using one of three alternative methods: 1) placement of spoils on adjacent property; 2) incorporation of mineral spoils into operation and maintenance roads or on adjacent levee and berm slopes; or 3) hauling spoils to a predetermined disposal site. Prior to the selection and use of a particular method of spoils disposal, a qualified biologist shall conduct a site assessment to determine if there is a potential to adversely impact giant garter snake, burrowing owl, or other sensitive species.

The first method, disposal on adjacent land, involves determining whether the adjacent property owner(s) or land manager(s) is/are willing to accept spoils, spoil disposal planning, and spoil placement. The disposal of spoils on adjacent property can occur anytime between September 1st and April 1st; it cannot occur if inclement weather prevents access to the area.

Adjacent property owners or land managers must be willing to accept placement of spoils on their property, which will normally be close to the canal to reduce transportation costs. A hydraulic arm excavator or backhoe will be used to remove the spoils from the canal; then the spoils are allowed to dry in place. This method allows the possibility of escape for any giant garter snakes that may have been inadvertently captured during removal of the spoils from the upper GGS/Drainage Canal. Finally, the property owner incorporates and/or distributes the dried spoils into their fields.

The second type of spoil disposal method involves incorporation of spoils into upper GGS/Drainage Canal operation and maintenance roads along the upper edge of canal side slopes. This method will be employed primarily during sediment removal and resloping operations when the amount of spoils removed is relatively small. Spoils will be removed from the upper GGS/Drainage Canal and placed on the maintenance road to dry. Once dry, mineral spoils (minimal organic content) will be graded and leveled to provide a smooth travel route. Similarly, spoils may be re-incorporated into the inside face of the side slope (i.e., the water side) to reconstruct eroded 3H:1V banks by using a hydraulic arm excavator, backhoe, and various compaction equipment.

The third type of spoil disposal method involves hauling the spoils to a predetermined, temporary holding site or permanent disposal site. The predetermined holding site will typically be located within the Natomas Basin, proximate to existing giant garter snake habitat. This allows for the possibility of encapsulated snakes to escape prior to the final disposal of the spoils at a permanent disposal site.

CONSERVATION MEASURES TO AVOID OR MINIMIZE POTENTIAL IMPACTS TO SPECIES

The physical placement of spoils on adjacent property is unlikely to impact giant garter snakes unless there is suitable overwintering habitat on such adjacent property. Placing spoils on actively farmed or disced fields reduces the likelihood of depleting terrestrial refugia and vegetation or entombing snakes present in hibernacula. However, the likelihood of such impacts increases if spoils are placed on or near upland habitat associated with TNBC reserves which are managed to provide permanent habitat for giant garter snake. Disposal of spoils on reserves could result in the covering of burrow openings, resulting in the potential entrapment of giant garter snakes and/or burrowing owls.

Using adjacent property for spoils placement is unlikely to impact burrowing owls unless it results in a loss of abandoned ground squirrel burrows or other features (e.g., abandoned pipes) that could serve as suitable burrows for this species. Likewise, the placement of spoils on adjacent land is unlikely to affect tricolored blackbirds unless the spoils are placed on their preferred nesting vegetation (e.g., Himalayan blackberry, nettles, emergent marsh vegetation, flooded willows of sufficient size to support a colony) during the nesting season (April 1st to July 1st, or while birds are present), or foraging sites (e.g., rice, alfalfa and silage fields, irrigated pastures, dry rangeland). The placement of wet spoils on grassland may result in the temporary loss of foraging habitat for raptors such as the Swainson's hawk, if the area previously supported a viable prey base (e.g., small mammals).

PLACEMENT OF FILL MATERIAL

Placement of fill material is defined as the act of placement and compaction of soil materials on, or in, the upper GGS/Drainage Canal side slope for the purpose of restoring its structural integrity or to raise side slopes where inadequate freeboard exists due to subsidence or deterioration. When total reconstruction of a canal side slope is warranted, or the height of side slopes must be restored, soil material may be imported to the site. Fill is used

when erosion, bank sloughing, excessive rodent burrows, and other factors cause deterioration of the canal side slopes resulting in side slope failure and narrowing of the maintenance road. Banks are often partially cut back by removing any loose or unsuitable materials in order to provide an adequate base for fill placement.

Side slope and fill material is compacted and shaped to restore bank integrity and channel cross section. Projects requiring large quantities of imported fill material are likely to be rare but may be required when existing material is not adequate for reconstruction of the side slope.

Site preparation in advance of fill placement will include the grubbing of vegetation and compaction of the original ground surface. For repairs that are greater than 10 feet in length, the existing bank may be cut back to allow the new fill material to be keyed-in. Fill material will be delivered to the project site by truck or other large equipment. The placement and distribution of the fill material will be done either by hand or mechanically, using a backhoe, hydraulic arm excavator, or bulldozer depending on the size of the area to be restored or the length of side slope to be constructed. Fill material will be compacted by hand-operated compactors (also referred to as wackers), by wheel rolling with heavy equipment, sheepsfoot roller, or vibratory compaction equipment.

Placement of fill may occur at any time throughout the year if substantial side slope failure is imminent or likely to occur. However, side slope reconstruction/replacement involving the placement of fill will most likely take place during periods when the canal can be dewatered or coffer dams can be installed to dewater specific reaches of the canal from October 1st to May 1st. This depends on precipitation and weather conditions, because the placement of compacted fill on the waterside of a canal side slope cannot occur under watered conditions. Disturbance would be limited to October-November and March-April to avoid the giant garter snake's least active, and most vulnerable period during the winter months (i.e., November through February). During any calendar year, upper GGS/Drainage Canal side slope reconstruction/replacement will be limited to no more than twenty-five percent of the total length of the canal, except in an emergency as explained in Section 5.8 of the LTMP. Specifically, this means that no more than 11,000 linear feet of the upper GGS/Drainage Canal will be reconstructed or replaced in any calendar year. The placement of fill cannot occur if inclement weather prevents access to the project site and/or saturated soil conditions prevent compaction of fill material.

CONSERVATION MEASURES TO AVOID OR MINIMIZE POTENTIAL IMPACTS TO SPECIES

The potential effects that placement of fill in the canal may have on giant garter snake and other species are similar to impacts caused by sediment removal, described above. Adhering to the conservation measures described above for sediment and debris removal, as well as the protocol for location, timing, and maintenance activities described above will support avoidance or minimize potential impacts to species.

RODENT BURROW MANAGEMENT

Rodent burrows provide refuge and hibernacula for giant garter snake and burrowing owl. Therefore, the upper GGS/Drainage Canal area will be managed to minimize disturbance to rodent burrows. In cases when concentrations of rodent burrows (primarily ground squirrels) are causing severe canal side slope erosion or threaten the stability of water control facilities, canal side slopes will be repaired consistent with the guidelines for resloping described above.

HIBERNACULA MANAGEMENT

Constructed hibernacula are rock piles keyed into the waterside canal banks. Their primary function is to provide refuge and winter habitat for giant garter snake immediately following construction of the upper GGS/Drainage Canal. This allows giant garter snake populations to become established without their typical rodent burrow habitat. It is anticipated that rodent burrows will become common during the mitigation establishment period, and constructed hibernacula will provide secondary long-term habitat for giant garter snake. Constructed hibernacula will not require long-term management.

VEGETATION MANAGEMENT AND INVASIVE WEED CONTROL ACTIVITIES

Vegetation management and invasive weed control is defined as the use of physical/mechanical, ecological, and/or chemical techniques to support establishment of native and/or desirable aquatic, wetland, and upland vegetation, and reduction or suppression of nonnative and/or undesirable aquatic, wetland, and upland vegetation within and adjacent to the upper GGS/Drainage Canal.

The techniques set forth below will guide activities by RD 1000 and agents acting on their behalf to manage vegetation in the upper GGS/Drainage Canal area. The vegetation management techniques described below may be used separately or in combination by RD 1000. Likewise, because RD 1000 currently utilizes many different types of vegetation control on other drainage canals in RD 1000's service area, the list of vegetation management techniques described below is not intended to be exclusive. If RD 1000 intends to implement vegetation management techniques in the upper GGS/Drainage Canal area that are not identified below, RD 1000 will discuss these with the resource agencies to determine if an amendment to this SSMP is required.

General Forage and Cover Preservation Strategies. Best management practices, as delineated below for the upper GGS/Drainage Canal, will seek to preserve vegetative cover that provides aquatic, wetland, and upland habitat for giant garter snake and protection of its prey base.

Vegetation Management Plan. Recognizing that management and maintenance activities to be conducted by RD 1000 may be modified over time, RD 1000 shall submit a vegetation management plan to a third party entity

every three years. The vegetation management plan shall address the control of vegetation in the upper GGS/Drainage Canal area to provide for optimum habitat conditions for giant garter snake and efficient operation and maintenance of the canal. The vegetation management plan will be included in the Monitoring Report submitted to the resource agencies. Any new vegetation management methods introduced by RD 1000 in the future must be discussed in the vegetation management plan and approved by the resource agencies.

AQUATIC VEGETATION MANAGEMENT

HAND PULLING/CUTTING

Manual removal of aquatic vegetation by pulling and/or cutting may be accomplished by field personnel entering the upper GGS/Drainage Canal under watered conditions, pulling/cutting the plants, and depositing the material on the bank top. Vegetation removed in this manner is allowed to desiccate and is later hauled away and burned or composted off-site. This technique is only employed when equipment access is restricted because it is labor-intensive, expensive, and can present worker safety issues. Site specific and pulling/cutting may be employed throughout the year to maintain the functionality of the canal, especially at water control drop structures.

EXCAVATOR/BACKHOE VEGETATION REMOVAL

A hydraulic arm excavator or backhoe is used to remove biomass accumulations causing upper GGS/Drainage Canal blockages. This equipment is used to harvest the aquatic vegetation by dislodging it and placing the plant remains on top of or adjacent to the side slope. Plant material is left to dry and then burned or hauled off-site for drying and disposal. This technique is employed under watered conditions and may be employed throughout the year when aquatic vegetation growth is severe and restricts water flow in the Upper GGS/Drainage Canal.

For an assessment of effects on protected species by this activity, please refer to the discussion of sediment and debris removal above.

WATER LEVEL MANIPULATION

Water level manipulation involves the dewatering the upper GGS/Drainage Canal and exposure of submersed aquatic plants. These plants depend on water for physical support because they lack a protective epidermal cell wall (or hardened cuticle layer) making them susceptible to desiccation. The canal must remain dewatered until aquatic vegetation has completely desiccated.

SEDIMENT REMOVAL

Sediment removal denies aquatic plants the nutrient rich soil necessary for their growth and can provide long-term vegetation control. Sediment removal is accomplished through the use of machinery (e.g., backhoe, excavator)

working from the top of the canal side slope. Sediment removal techniques and disposal of canal spoils are described above.

CHEMICAL

Use of both contact and systemic herbicides can be valuable for the suppression of aquatic weedy plants. Use of selective herbicides, in contrast to broad spectrum herbicides that may cause mortality of planted and desirable bank vegetation, is required. These herbicides will be evaluated for their potential affect on giant garter snake and its prey by a State-licensed Pest Control Advisor prior to application. Herbicides that will cause harm to giant garter snake or its prey will not be used. Most pesticides have a high potential to harm giant garter snake and its prey; therefore, the use of pesticides in the upper GGS/Drainage Canal is not recommended. Chemicals not approved for use in or near water will not be used. If herbicides and/or pesticides are used in the upper GGS/Drainage Canal, they will be applied in accordance with label instructions under the direction of a State-licensed Pest Control Advisor and applied by State-licensed pesticide applicators or employees under their direct supervision.

WETLAND VEGETATION MANAGEMENT

Wetland vegetation planted at the waterline in the upper GGS/Drainage Canal will provide giant garter snakes important refuge from predators. Regular maintenance of wetland vegetation will not be necessary; however, if maintenance is needed, RD 1000 will use the methods described below under upland vegetation management.

UPLAND VEGETATION MANAGEMENT

The uplands adjacent to the upper GGS/Drainage Canal will be managed as native perennial grasslands. The grasslands will be maintained primarily to provide cover for giant garter snake, and secondarily as foraging habitat for Swainson's hawk.

GRAZING

Use of small-hoofed animals, such as sheep or goats, can be used to manage upland and wetland vegetation adjacent to the upper GGS/Drainage Canal. Grazing has been successfully employed by TNBC in their operations. Grazing techniques can be used to either trim the tops of the vegetation (similar to mowing) or to achieve a more thorough removal of vegetation similar to burning. Grazing may also be employed to remove aquatic vegetation if the canal is dewatered. Grazing for noxious weed control should be conducted typically in the spring after the dominant noxious weed species have flowered, but before they have set seed. Timing will vary depending on weather conditions, and should be based on observations made by RD 1000 staff. Grazing should not occur between May 1st and July 1st to allow native perennial grasses to set seed. Grazing to control vegetation height should be conducted between July 1st and October 1st. The use of grazing animals shall be evaluated to

ensure that hoofed animals are not causing bank erosion or damage to a viable perennial grassland cover. Large-hoofed livestock, such as cattle, will not be used.

Potential Impact to Species

Grazing by small-hoofed animals has a low likelihood of injuring giant garter snakes and other species. Livestock move slowly through an area, providing time for giant garter snakes and other species to escape being trampled. The small-hoofed animals cause minimal or no damage to giant garter snake and burrowing owl burrows. Livestock are frequently rotated to new paddocks, causing only temporary disturbance of any one area.

MOWING

Mowing is utilized to control terrestrial vegetation on operation and maintenance roads and upper GGS/Drainage Canal side slopes to the water line. Mowing can be used to control vegetation height, as well as to discourage the spread of noxious broad-leaved weeds. Mowing is accomplished utilizing a wheeled tractor with boom mounted 5-foot flail mower and/or a rear attached flail mower or a self-contained riding-type mower. All mowers are provided with height gages which are set to leave the remaining vegetation approximately 6 to 12 inches tall, except for access roads where vegetation will be cut to leave the access roads clean of cover, or mowed to less than 6 inch height above grade. Vegetation along the water-side of canal slopes will be mowed, when necessary, only to the high water mark when the canal is watered. Mowing for noxious weed control should be conducted typically in the spring after the dominant noxious weed species have flowered, but before they have set seed. Timing will vary depending on weather conditions, and should be based on observations made by RD 1000 staff. Mowing should not occur between May 1st and July 1st to allow native perennial grasses to set seed, unless noxious weed control is the highest priority. Mowing to control vegetation height should be conducted between July 1st and October 1st; however, burrowing owl nesting sites should be avoided (see the discussion of potential impacts to burrowing owls below). Mowing may be further restricted within this time frame by inclement weather and wet conditions, which coincide with reduced giant garter snake activity and inability to move quickly out of harm's way, increasing the risk of injury or death from mowing.

Potential Impacts to Species

Mowing can result in injury, death, or displacement of giant garter snakes, especially when mowing uneven terrain so that "scalping" (contact between the mower blade and the ground surface) occurs. Because mowing of levees typically coincides with the giant garter snake active season, individuals present in upland habitat are likely to retreat to the water at the first sign of noise, vibration, and human activity, thereby reducing the chance of injury. Snakes that remain still to avoid detection may be killed or injured if the mower blade contacts the ground surface, tractor tires run over them, or if a snake is crushed in its burrow.

During burrowing owl nesting season (February 1st through August 31st), mowing within 100 feet of a nest can result in injury or death to burrowing owls that have not yet fledged or that are too young to retreat to the safety of their burrows to avoid injury.

For any mowing activity by RD 1000 to control terrestrial vegetative cover on top of and inside upper GGS/Drainage Canal banks to the water line, the vegetation shall be not less than six (6) inches in height as measured from the ground. Access roads will be mowed to leave the access roads clean of cover, or mowed to less than 6 inch height above grade.

PRESCRIBED BURNING

Prescribed burning is defined as the practice of using controlled fires to reduce or eliminate unwanted organic matter on canal side slopes and/or canal inverts. If conditions are conducive (e.g., favorable wind conditions and sufficient fuel material), burning has been shown to be effective in the reduction of organic matter (i.e., thatch) on side slopes and within canals. Prescribed burning should be used infrequently, primarily to control thatch buildup if not adequately controlled with other vegetation management methods. Prescribed burning must be conducted in accordance with all laws and local ordinances.

Prescribed burning by RD 1000 and its agents or contractors to control vegetation in the upper GGS/Drainage Canal area shall be conducted only between November 1st and April 1st. Any such prescribed burning activities shall be subject to all laws regarding burning activities.

Potential Impacts to Species

Giant garter snakes could be injured or killed during prescribed burning activities if they are above ground, and in some cases if their burrows become too hot. Burning of grasses and other ruderal vegetation typically proceeds quickly enough that harm to giant garter snakes in burrows or riprap is minimized. Burning also reduces or eliminates the vegetation that provides basking habitat and refuge from predators. Burrowing owls would likely be unharmed if they remained within an underground burrow during the burn. A more likely scenario would be that owls would leave the area during the actual burn and return later. Burning may reduce the quality of foraging habitat for raptors if prey densities and availability are affected. Burning is unlikely to affect tricolored blackbirds unless conducted within 500 feet of a nesting colony during the nesting season (April 1st to July 1st).

CHEMICAL

Use of both contact and systemic herbicides can be valuable for the suppression of terrestrial weedy plants. Use of selective herbicides, in contrast to broad spectrum herbicides that may cause mortality of planted and desirable bank vegetation, is required. These herbicides will be evaluated for their potential affect on giant garter snake and its prey by a State-licensed Pest Control Advisor prior to application. Herbicides that will cause harm to giant

garter snake or its prey will not be used. Most pesticides have a high potential to harm giant garter snake and its prey; therefore, the use of pesticides in the upper GGS/Drainage Canal is not recommended. Chemicals not approved for use in or near water should not be used. If herbicides and/or pesticides are used in the upper GGS/Drainage Canal, they will be applied in accordance with label instructions under the direction of a State-licensed Pest Control Advisor and applied by State-licensed pesticide applicators or employees under their direct supervision.

Potential Impact to Species

Herbicides and pesticides have the potential to cause direct and indirect harm to giant garter snakes and other non-target species. Potential effects to giant garter snake prey species (primarily aquatic and amphibious species) are the most significant concern on the use of chemicals. To avoid or minimize harm to non-target species chemicals will be applied in accordance with label instructions under the direction of a State-licensed Pest Control Advisor and applied by State-licensed pesticide applicators or employees under their direct supervision.

MONITORING, ADAPTIVE MANAGEMENT, AND REPORTING

INSPECTIONS, MONITORING, AND ADAPTIVE MANAGEMENT

A third party entity will provide continued ongoing monitoring of the upper GGS/Drainage Canal area and of RD 1000's operation and maintenance activities within this area to ensure compliance with the terms and conditions of the canal easements, the LTMP, and this SSMP. Site inspections and monitoring for the upper GGS/Drainage Canal will be conducted according to the guidelines in Chapter 4 of the LTMP, which is consistent with and supports the Biological Effectiveness Monitoring Plan required by the Natomas Basin HCP.

Site maintenance inspections of the GGS/Drainage Canal will concentrate on the evaluation of the following factors: water supply and water control structure condition; side slope erosion issues; fire hazards; fences, gates, and signs condition; trash accumulation; trespass and vandalism evidence; and beaver dam evidence. Biological monitoring of the Upper GGS/Drainage Canal will include habitat type monitoring, noxious weeds monitoring, and giant garter snake monitoring.

RD 1000 and the third party entity will collect and analyze the monitoring data and site maintenance inspection findings to determine if maintenance or monitoring methods should be modified to improve the site's performance. RD 1000 and the third party entity will follow the adaptive management strategy presented in Section 4.3 of the LTMP.

MONITORING REPORT

The third party entity will submit a monitoring report to the resource agencies every 5 years. RD 1000 shall provide to the third party entity, no later than December 1st each calendar year that a monitoring report is due, all of the following information: (1) a summary of upper GGS/Drainage Canal operation and maintenance activities conducted in the previous monitoring period; (2) deviations from the measures described in this SSMP, if any, and the reasons for such deviations (including emergency actions taken); (3) a summary accounting (in addition to immediate notification to resource agencies) for the take of any individual giant garter snakes or other protected species, if known, resulting from upper GGS/Drainage Canal operation and maintenance activities by RD 1000 during the monitoring period; (4) a summary of site maintenance inspection findings; and (5) any other information deemed relevant. The third party entity shall include this information in its Monitoring Report to the resource agencies, as described in the LTMP.

PROHIBITED ACTIVITIES

This section outlines the restricted activities associated with the upper GGS/Drainage Canal, as described in the Canal Easement (Appendix B1). It is understood that the following activities are prohibited, except as needed to accomplish the management and maintenance activities described in this SSMP, or as described below. Additionally, if any of these activities must be undertaken because of special circumstances, they will be reviewed and approved by the resource agencies on a case-by-case basis.

- Leveling, grading, landscaping, cultivating, or otherwise altering the upper GGS/Drainage Canal area's existing topography for any purpose, including the building of new roads or foot trails, unless such activities are necessary to carry out the provisions of the easements, the LTMP, or this SSMP.

- Use of off-road vehicles except as necessary to operate and maintain the upper GGS/Drainage Canal as provided in the LTMP and this SSMP.

- Conducting fire protection activities, including the creation of fire breaks, that may adversely impact conservation values, except as required to respond to an imminent threat to public health or safety or to property and/or to comply with the Airport's Wildlife Habitat Management Plan (WHMP) as most recently amended, and other requirements that may be promulgated by the FAA or federal Transportation Security Administration ("TSA"). Mowing (not discing) shall be used for fire break creation whenever possible. Discing, when necessary, shall be conducted in a manner consistent with the WHMP.

- Recreational activities, including, but not limited to, horseback riding, biking, hunting or fishing, canoeing or kayaking.

- Commercial or industrial uses.
- Any legal or de facto division, subdivision or partitioning of the upper GGS/Drainage Canal area.
- Construction, reconstruction or placement of any building, billboard or signs with cement footings, or any other structure or improvement of any kind within the upper GGS/Drainage Canal area, except those necessary to carry out the drainage purposes as defined in the Canal Easement, including but not limited to installation of informational and/or warning signs or access control gates as provided in the LTMP.
- Discharging, dumping, burning, accumulating, or storing of soil, trash, ashes, refuse, waste, grass clippings, dredge materials, chemicals, bio-solids or any other materials except as provided in this SSMP.
- Planting, introduction, or dispersal of exotic plant, aquatic, or animal species.
- Mining, drilling, removing, or exploring for or extracting of minerals, petroleum or other such material on or below the surface of the upper GGS/Drainage Canal area.
- Use of the upper GGS/Drainage Canal area in violation of the LTMP.
- Removing, destroying, replacing, or cutting of trees, except as specifically provided in this SSMP or as required by law for fire breaks, maintenance of existing foot trails or roads, or prevention or treatment of disease, to carry out the WHMP or to comply with regulatory orders issued by the FAA, or as required to carry out the operation and maintenance activities described in this SSMP.

REFERENCES

City of Sacramento, Sutter County, and The Natomas Basin Conservancy. 2003 (April). Pps: V.35-V.36. *Final Natomas Basin Habitat Conservation Plan.* Sacramento, CA. Prepared for U.S. Fish and Wildlife Service and California Department of Fish and Game.

Sacramento Area Flood Control District. 2009 (March). *NLIP Phase 2 Landside Improvements Project Draft Mitigation and Monitoring Plan.* Sacramento, CA. Prepared by EDAW, Inc. Sacramento, CA.

APPENDIX B

Easements and Agreements

B1 Grant Deed of Perpetual Drainage Canal Easement

B2 Conservation Easement Deed – Novak Property

B3 Conservation Easement Deed – Brookfield Property

B4 Conservation Easement Deed – Upper Woodlands

B5 Conservation Easement Deed – Lauppe Property

B6 Master Agreement Between TNBC and SAFCA Regarding the NLIP

B7 Management Agreement Between SAFCA and RD 1000 Regarding the Upper GGS/Drainage Canal Portion of the NLIP Phase 2 Project

B8 Memorandum of Understanding Between NCMWC and SAFCA Regarding the NLIP

B1 Grant Deed of Perpetual Drainage Canal Easement

No Recording Fee Per Gov't Code § 6103
No Documentary Transfer Tax per R&T Code
§ 11922 - Governmental Acquisition

SAFCA DRAFT 3-10-09

Recording Requested By:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
	)
When recorded, mail to:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
1007 7th Street, 7th Floor	)
Sacramento, CA 95814	)

Parcel Nos.: [FILL IN PARCEL NOs.]

GRANT DEED OF
PERPETUAL DRAINAGE CANAL EASEMENT

THIS GRANT DEED OF PERPETUAL DRAINAGE CANAL EASEMENT ("Drainage Canal Easement" or "Easement") is made this ____ day of _____, 2009, by the County of Sacramento ("County" or "Grantor"), in favor of the Sacramento Area Flood Control Agency ("SAFCA") and SAFCA's successors and assigns (collectively "Grantee"). Grantor and Grantee, and each of their respective successors and assigns, are sometimes hereinafter referred to collectively as "Parties" and individually as a "Party."

RECITALS

WHEREAS, Grantor is a county of the State of California and is the sole owner in fee simple of certain real property located in the County of Sacramento, State of California, along the Sacramento River East Levee ("Drainage Canal Area"). A map of the Drainage Canal Area is attached to this Easement as Exhibit A, and incorporated herein by this reference. A legal description of the Drainage Canal Area is attached hereto as Exhibit B, and incorporated herein by this reference.

WHEREAS, the Drainage Canal Area comprises a portion of the lands acquired by the County to serve as an operational compatibility and safety buffer for aviation operations at the Sacramento International Airport ("Airport"). The County acquired the Drainage Canal Area utilizing, in part, grant funds received from the Federal Aviation Administration ("FAA") requiring that it provide certain assurances ("Grant

Assurances") that it maintain and use the Drainage Canal Area in support of the aviation purposes of the Airport. The FAA also requires that the County maintain the Drainage Canal Area in compliance with the Airport's Wildlife Hazard Management Plan (the "WHMP"), which has been prepared in accordance with FAA regulations and policies pertaining to airport certification and operation (including, but not limited to, 14 CFR section 139.337 – Wildlife Hazard Management). Preservation of the Drainage Canal Area's flight safety and operation values and compliance with the WHMP (collectively, "Aviation Safety Values") is of great importance to the Grantor, Grantee, the people of Sacramento, the people of California, and the people of the United States.

WHEREAS, Grantee is a joint powers agency authorized under the laws of the State of California to hold title to real property, to take actions to protect life, property, watercourses, watersheds, and highways from damage from flood and storm waters, and to carry out its responsibilities in a manner that provides for the optimum protection of the natural environment, especially riparian habitat and natural stream channels suitable for native plant and wildlife habitat and public recreation.

WHEREAS, the Drainage Canal Area is located in the Natomas Basin and will contain a section of open canal generally parallel to the Sacramento River East Levee, between the North Drainage Canal at the Reclamation District No. 1000 ("RD 1000") Pumping Plant No.2 and the Natomas Central Mutual Water Company's Elkhorn Reservoir north of the Teal Bend Golf Club ("Drainage Canal"), as well as an operations and maintenance corridor of twenty feet on each side of the Drainage Canal. The Drainage Canal will function as an integrated component of the system of drainage and irrigation facilities serving the Natomas Basin ("Drainage and Irrigation Values") and protecting the area during floods ("Flood Control Values"). Preservation and enhancement of these Drainage and Flood Control Values are of great importance to the Grantor, Grantee, the people of Sacramento, the people of California, and the people of the United States.

WHEREAS, the Drainage Canal Area possesses significant agricultural, open space, and wildlife habitat values (collectively "Conservation Values") that support a diverse assemblage of wildlife species within the Natomas Basin, many of which, including the giant garter snake and the Swainson's hawk, are protected under either or both the Federal Endangered Species Act ("FESA") and the California Endangered Species Act ("CESA"). Preservation of these Conservation Values is of great importance to the Grantor, Grantee, the people of Sacramento, the people of California, and the people of the United States.

WHEREAS, in order to preserve and enhance the Drainage and Flood Control Values of the Natomas Basin, SAFCA has initiated the Natomas Levee Improvement Program ("NLIP"), which includes alterations to the Sacramento River East Levee in the vicinity of the Drainage Canal Area. These alterations must be permitted by the U.S.

Army Corps of Engineers ("Corps") under 33 U.S.C. Section 408 and by the Central Valley Flood Protection Board under Title 23 of the California Code of Regulations. Because the alterations could affect the giant garter snake and its habitat and the Swainson's hawk and its habitat, the permits will include mandatory terms and conditions identified by the U.S. Fish and Wildlife Service ("USFWS") pursuant to FESA (Biological Opinion USFWS File No. 81420-2008-F-0195) ("Biological Opinion") that will minimize these effects and by the California Department of Fish and Game ("CDFG") pursuant to CESA that will fully mitigate any unavoidable losses of such species and their habitat.

WHEREAS, the County desires to dewater and reconfigure the drainage ditch that runs through the western portion of the Airport (the "Airport West Ditch") as shown in Exhibit C and has requested that SAFCA include measures in the NLIP that would offset any loss of Conservation Values and replace any loss of Drainage and Irrigation Values that might otherwise result from the dewatering and reconfiguration activities of the Airport West Ditch.

WHEREAS, SAFCA has developed a Mitigation, Monitoring and Management Program ("MMMP") to satisfy the requirements of FESA and CESA identified above. There are three documents that together comprise the MMMP for the upper portion of the Giant Garter Snake/Drainage Canal. These three documents (collectively, the "Upper GGS/Drainage Canal MMMP") are: 1) a Mitigation and Monitoring Plan ("MMP"), attached hereto as Exhibit D and incorporated herein, that identifies the measures that SAFCA will implement to create and monitor the NLIP Phase 2 habitat features, including the upper portion of the GGS/Drainage Canal; 2) a Programmatic Long Term Management Plan ("LTMP"), attached hereto as Exhibit E and incorporated herein, that describes the NLIP habitat features, their linkage to the Natomas Basin Habitat Conservation Plan ("NBHCP"), and the long-term management principles, easements, management agreements, and funding mechanisms that will apply to these NLIP habitat features; and 3) a management plan for the upper portion of the Giant Garter Snake/Drainage Canal ("Upper GGS/Drainage Canal Site Specific Management Plan"), attached hereto as Exhibit F and incorporated herein, that describes the operation and maintenance activities, conservation measures and monitoring and reporting activities that RD 1000 will undertake in the Drainage Canal Area consistent with the terms of this Easement and the requirements of FESA and CESA. The Upper GGS/Drainage Canal MMMP has been approved by the Corps, USFWS, and CDFG ("Approving Agencies"). Any future modifications or amendments to the Upper GGS/Drainage Canal MMMP must be approved in writing by the Approving Agencies. A final copy of the Upper GGS/Drainage Canal MMMP and any amendments thereto shall be kept on file at the respective offices of the Approving Agencies. If Grantor, or any successor or assign, requires an official copy of the Upper GGS/Drainage Canal MMMP, it should request a copy from one of the Approving Agencies at its address for notices listed herein.

WHEREAS, the purpose of this Easement is to provide the rights necessary for SAFCA to carry out the Phase 2 NLIP, including construction and management of the Drainage Canal in accordance with the provisions of the Upper GGS/Drainage Canal MMMP and in a manner that permanently preserves the Aviation Safety, Drainage and Irrigation, Flood Control, and Conservation Values of this area.

WHEREAS, a portion of the Drainage Canal Area will be located on the County-owned property commonly known as Yuki Farms, on which approximately 2,000 gallons of gasoline were discharged into the soil in October 1997. An Ecological Risk Assessment has been completed, which concludes that there will be no substantial risk to species as a result of constructing the Drainage Canal across the Yuki Farms property. Further, the mitigation measures for the NLIP require that prior to the commencement of any construction activities on the Yuki Farms property, SAFCA must ensure that any issues of documented soil or groundwater contamination on the property have been resolved by the County and SAFCA or that a qualified hazardous materials specialist, through testing, has determined that any previously documented contamination on the property will not be encountered during construction activity and would not migrate into water carried in the new canals and pose a threat to the safety of workers, the general public, or the environment.

WHEREAS, County understands that SAFCA intends to enter into a separate Management Agreement with RD 1000 that will ensure that RD 1000 manages the Drainage Canal Area in accordance with this Easement and the Upper GGS/Drainage Canal Site Specific Management Plan. The Management Agreement between SAFCA and RD 1000 is incorporated by reference into this Easement as though fully set forth herein.

WHEREAS, the Parties intend to enter into a separate Master Agreement by which they, among other things, will agree to exercise their water rights in common so as to have the Natomas Central Mutual Water Company ("NCMWC") deliver water to the upper portion of the Giant Garter Snake/Drainage Canal. The Master Agreement between the County and SAFCA is incorporated by reference into this Easement as though fully set forth herein.

WHEREAS, SAFCA intends to enter into a separate master agreement with NCMWC to ensure that NCMWC delivers water to the upper portion of the Giant Garter Snake/Drainage Canal as anticipated in the Upper GGS/Drainage Canal MMMP. The Master Agreement between SAFCA and NCMWC is incorporated by reference into this Easement as though fully set forth herein.

WHEREAS, the Parties intend for the USFWS to be a third-party beneficiary with rights under this Easement as specified below. These rights will assist the USFWS in

overseeing implementation of the NBHCP and will contribute substantially to the permanent protection of the Conservation Values protected by this Easement.

WHEREAS, the Parties have agreed upon the payments or other compensation to be made by Grantee to Grantor for Grantee's purchase of this Easement. The details of Grantee's responsibilities to compensate the County are described in a separate Compensation Agreement between the Parties which is incorporated by reference into this Easement as though fully set forth herein.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

In consideration of the recitals set forth above and other good and valuable consideration, receipt of which is hereby acknowledged, Grantor and Grantee covenant and agree as follows:

A. Rights and Privileges. Grantor hereby grants to Grantee a perpetual easement for drainage and irrigation, flood control, habitat creation, maintenance, and preservation purposes over, across, upon and through the Drainage Canal Area as hereinafter described. This Easement shall, subject to Paragraph C below, entitle Grantee and/or its successors or assignees to exercise the following rights and privileges in the Drainage Canal Area:

1. To construct, excavate, reconstruct, repair, operate, maintain, and monitor the drainage canal facilities, with all of the appurtenances thereto, as may be found necessary by Grantee and/or its successors or assignees to carry out the provisions of the Upper GGS/Drainage Canal MMMP and to safely and efficiently collect and convey interior drainage to facilities for discharge into the Sacramento River. As set forth in the Upper GGS/Drainage Canal Site Specific Management Plan, such operations and maintenance may include periodic improvements and grading of access roads, periodic removal of sediment build-up in the canal; excavation and re-sloping of the canal; deposition of canal spoils; placement of fill material or other erosion resistant materials; control of vegetation in and around the canal to retain conveyance capacities; and control of rodents.

2. To create, preserve, monitor, and maintain aquatic, riparian, and upland habitat for the benefit of the giant garter snake and other wildlife species in the Drainage Canal Area in a manner consistent with this Easement and in accordance with the Upper GGS/Drainage Canal MMMP.

3. To clear and remove, in accordance with the Upper GGS/Drainage Canal Site Specific Management Plan, any natural or artificial obstructions, improvements, trees and vegetation that Grantee and/or

its successors, assignees, or designees determine are detrimental to the operation and maintenance of the drainage canal facilities.

4. To conduct engineering, geotechnical, survey and environmental investigations.

5. To prevent any activity on or use of the Drainage Canal Area, including by Grantor, that is inconsistent with the drainage and irrigation, flood control, or conservations purposes of this Easement or the Upper GGS/Drainage Canal MMMP or may interfere with the use of the Drainage Canal Area for any present or future drainage or flood control project, or any use necessary or incidental thereto.

6. To require the restoration of such areas or features of the Drainage Canal Area that may be damaged by any act, failure to act, or any use that is inconsistent with the drainage and irrigation, flood control, or conservation purposes of this Easement.

7. To exercise all mineral, air and water rights necessary to protect and to sustain the Conservation and Flood Control Values of the Drainage Canal Area, including use of the Drainage Canal to transport water.

8. To monitor compliance with and otherwise enforce the terms of this Easement and to fulfill any and all duties identified in this Easement and the Upper GGS/Drainage Canal MMMP.

9. To ingress to, egress from, and traverse the Drainage Canal Area for the purpose of exercising and performing all rights and privileges granted herein.

B. Exercise of Rights and Privileges. Exercise of the Parties' rights and privileges afforded or reserved by this Easement, including the right to remove natural or artificial obstructions, shall comply fully with the Upper GGS/Drainage Canal MMMP and the mandatory procedures set forth in this Easement, which include notice, review and mediation procedures.

C. Prohibited Uses. Any activity on or use of the Drainage Canal Area inconsistent with the Upper GGS/Drainage Canal MMMP and the purposes of this Easement is prohibited. Without limiting the generality of the foregoing, the following uses and activities by Grantor and Grantee (including their respective officers, employees, assigns, agents, and potential future lessees) in the Drainage Canal Area are expressly prohibited:

1. Leveling, grading, landscaping, cultivating, or otherwise altering the Drainage Canal Area's topography for any purpose, including the building of new roads or foot trails, unless such activities are

necessary to carry out the provisions of the Upper GGS/Drainage Canal MMMP.

2. Use of off-road vehicles except as necessary to carry out the provisions of the Upper GGS/Drainage Canal MMMP.

3. Conducting fire protection activities, including the creation of fire breaks, that may adversely impact Conservation Values, except as required to respond to an imminent threat to public health or safety or to property and/or to comply with the WHMP as amended from time to time, and other requirements that may be promulgated from time to time by the FAA or federal Transportation Security Administration. Mowing (not discing) shall be used for fire break creation whenever possible. Discing, when necessary, must first be approved by the Approving Agencies and shall be conducted in a manner consistent with the WHMP as may be amended from time to time.

4. Recreational activities, including, but not limited to, horseback riding, biking, hunting or fishing, canoeing or kayaking.

5. Commercial or industrial uses.

6. Any legal or de facto division, subdivision or partitioning of the Drainage Canal Area.

7. Construction, reconstruction or placement of any building, billboard or signs with cement footings, or any other structure or improvement of any kind within the Drainage Canal Area, except those necessary to carry out the purposes of the Upper GGS/Drainage Canal MMMP, including but not limited to installation of informational and/or warning signs or access control gates as provided in the Upper GGS/Drainage Canal Site Specific Management Plan.

8. Discharging, dumping, burning, accumulating, or storing of soil, trash, ashes, refuse, waste, grass clippings, dredge materials, chemicals, bio-solids or any other materials except as provided in the Upper GGS/Drainage Canal Site Specific Management Plan.

9. Planting, introduction, or dispersal of exotic plant, aquatic, or animal species, except in accordance with this Easement and the Upper GGS/Drainage Canal Site Specific Management Plan.

10. Mining, drilling, removing, or exploring for or extracting of minerals, petroleum or other such material on or below the surface of the Drainage Canal Area.

11. Use of the Drainage Canal Area in violation of the Upper GGS/Drainage Canal MMMP.

12. Removing, destroying, replacing, or cutting of trees, except as specifically provided in the Upper GGS/Drainage Canal MMMP, or as required by law for fire breaks, maintenance of existing foot trails or roads, or prevention or treatment of disease, or to carry out the WHMP or comply with regulatory orders issued by the FAA, or as required to carry out the operation and maintenance activities described in the Upper GGS/Drainage Canal Site Specific Management Plan.

13. Interfering with the transport of water through the Drainage Canal.

D. Grantor's and Grantee's Duties.

1. Grantor and Grantee shall install and maintain access gates with locks at all entry points to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Flood Control, Drainage and Irrigation, or Conservation Values of the Drainage Canal Area and shall otherwise undertake all reasonable actions to prevent such unlawful entry.

2. Grantee shall fully exercise its rights and privileges under this Easement to ensure that the Drainage and Irrigation, Flood Control, and Conservation Values of this Easement are protected.

3. Grantee shall not abandon this Easement insofar as it protects the Conservation Values of the Drainage Canal Area and any purported abandonment shall be of no force or effect. Grantee acknowledges that such Conservation Values are required to be permanently protected and preserved consistent with Grantee's mandatory obligations under the Biological Opinion.

E. Grantor's Uses and Notification Obligations. The prohibitions contained in this Easement are not intended to preclude Grantor from maintaining its current use of the Drainage Canal Area for protection of Aviation Safety Values. In the event Grantor determines that maintaining these Aviation Safety Values requires action ("Grantor Proposed Action") that could (a) fall within the Prohibited Uses identified in Paragraph C above, (b) cause the removal of any trees or natural or artificial obstructions, or (c) could adversely impact the Flood Control, Drainage and Irrigation, or Conservation Values, Grantor, not less than thirty (30) days prior to the date Grantor intends to initiate this action, shall provide notice to SAFCA, USFWS, and CDFG that describes such Grantor Proposed Action and indicates whether the Grantor Proposed Action will require any additional compliance with FESA or CESA.

1. SAFCA, USFWS, and CDFG shall independently review the information and, within ten (10) days after receipt of Grantor's description, use their reasonable efforts to identify in writing any potential conflict between the Grantor Proposed Action and the Prohibited Uses, or the Flood Control and Conservation Values of this Easement, or the requirements of FESA or CESA.

2. Grantor shall make a reasonable effort to modify the Grantor Proposed Action so as to avoid any conflict(s) identified by SAFCA, USFWS or CDFG. Grantor shall report back to SAFCA, USFWS, and CDFG within ten (10) days after receipt of any written comment from SAFCA, USFWS, or CDFG regarding Grantor's plan to avoid such conflict(s).

3. If an agreement cannot be reached, then SAFCA, USFWS or CDFG may invoke the mediation procedures outlined in Paragraph H of this Easement. Nothing in this Paragraph E is intended nor shall it be construed to affect Grantor's obligations under FESA and CESA or USFWS' and CDFG's respective responsibilities under said statutes. In accordance with its statutory and regulatory responsibilities under FESA, USFWS shall not be required to participate in mediation and if it chooses to so participate, it shall not be bound by the outcome of such mediation.

4. In the absence of any conflict with respect to the Grantor Proposed Action, FESA or CESA compliance issues, or upon resolution of any such conflict or compliance issues, Grantor shall proceed with that action, provided that it shall not substantially alter the Grantor Proposed Action described in Grantor's preceding notice to SAFCA, USFWS, and CDFG without re-initiating the mandatory procedures outlined in the immediately preceding subsections of this Paragraph.

5. The mandatory procedures outlined in the immediately preceding subsections shall not apply in those instances when Grantor in good faith determines that due to an imminent threat to public health or safety or to property ("Emergency"), it cannot comply with such procedures. In such Emergencies, Grantor will, if practicable, make a reasonable effort to notify SAFCA, USFWS, and CDFG prior to initiating the Grantor Proposed Action. Fax or phone notification 72 hours prior to initiating the Grantor Proposed Action, with written follow-up, will be deemed adequate.

6. From time to time Grantor may be required to make alterations to the Drainage Canal Area in order to comply with FAA regulations, policies, orders or other directives pertaining to Aviation Safety Values or wildlife hazard management as a prerequisite to the

Airport's retention of its operating certificate. In such instances, Grantor and/or the FAA shall consult with SAFCA, USFWS, CDFG, and the Corps prior to implementing such FAA regulations, policies, orders or directives. The Approving Agencies shall determine the payment or other compensation, if any, to be made by Grantor for actions taken pursuant to this subsection, including the payment of fines and/or penalties required by FESA or CESA, the payment of all costs and damages that result from the actions of Grantor pursuant to this subsection, and the restoration or replacement of habitat impacted by actions taken by Grantor pursuant to this subsection.

7. Nothwithstanding the provisions of this Paragraph E, nothing in this Easement is intended or shall be construed to authorize Grantor to undertake any activity in violation of, or without required authorization, if any, under FESA or CESA or other applicable federal or state law.

F. Grantee's Uses and Notification Obligations. Under this Drainage Canal Easement, Grantee holds the right to construct, re-construct, operate and maintain such drainage and habitat improvements in the Drainage Canal Area as may be necessary to carry out the provisions of the Upper GGS/Drainage Canal MMMP and this Easement . Prior to the re-construction or modification of any such improvement or the removal of any trees or natural or artificial obstructions beyond those needed to originally construct the Drainage Canal or required for the ordinary operation and maintenance of the Drainage Canal Area in accordance with the Upper GGS/Drainage Canal Site Specific Management Plan ("Grantee Proposed Action"), Grantee shall provide Grantor, USFWS, and CDFG, not less than thirty (30) days prior to the date Grantee intends to initiate this action, with a description of the Grantee Proposed Action, including an explanation of the necessity for the action supported by data or relevant engineering information and shall indicate whether the Grantee Proposed Action will require any additional compliance with FESA or CESA.

1. Grantor, USFWS, and CDFG shall independently review this information and shall reasonably endeavor to identify in writing, within thirty (30) days after receipt of Grantee's description, any potential conflict between the Grantee Proposed Action and the Aviation Safety Values, Flood Control Values, Drainage and Irrigation Values, or Conservation Values of this Easement and whether the Grantee Proposed Action will require any additional compliance with FESA or CESA. If no written comments are received within this 30-day period, Grantee may proceed with the

Grantee Proposed Action subject to compliance with FESA, CESA, and other applicable law.

2. Grantee shall make a reasonable effort to modify the Grantee Proposed Action so as to avoid any identified potential conflict(s) or FESA or CESA compliance issues. Grantee shall report back to Grantor, USFWS, and CDFG within fifteen (15) days after receipt of any written comment from Grantor, USFWS, or CDFG regarding its plan to avoid such conflict(s) or compliance issues.

3. If an agreement cannot be reached, then Grantor, Grantee, USFWS, or CDFG may invoke the mediation procedures outlined in Paragraph H of this Easement. Nothing in this Paragraph F is intended nor shall it be construed to affect Grantee's obligations under FESA and CESA or USFWS' and CDFG's respective responsibilities under said statutes. In accordance with its statutory and regulatory responsibilities under FESA, USFWS shall not be required to participate in mediation and if it chooses to so participate, it shall not be bound by the outcome of such mediation.

4. In the absence of any conflict with respect to the Grantee Proposed Action or FESA or CESA compliance issues or upon resolution of any such conflict or compliance issues, Grantee shall proceed with that action, provided that it shall not substantially alter the action without re-initiating the review process outlined in the immediately preceding subsections of this Paragraph.

5. The mandatory procedures outlined in the immediately preceding subsections shall not apply in those instances when Grantee in good faith determines that due to an Emergency, it cannot comply with such procedures. In such Emergency, Grantee will make a reasonable effort to notify Grantor, USFWS, and CDFG prior to initiating any such activities. Fax or phone notification 72 hours prior to initiating the Grantee Proposed Action, with written follow-up, will be deemed adequate.

6. Nothwithstanding the provisions of this Paragraph F, nothing in this Easement is intended or shall be construed to authorize Grantee to undertake any activity in violation of, or without required authorization, if any, under FESA or CESA or other applicable federal or state law.

G. RD 1000's Obligations. In managing the Drainage Canal Area for the drainage and irrigation, flood control, and conservation purposes of this Easement, RD 1000 shall comply with this Easement and with the Upper GGS/Drainage Canal Site Specific Management Plan. SAFCA, and not RD 1000, is responsible for complying with the MMP.

H. Mediation. If a dispute arises among Grantor, Grantee, USFWS or CDFG ("Potential Mediation Parties") concerning the consistency of any past, ongoing or proposed activity on the Drainage Canal Area with the terms of this Easement or the Upper GGS/Drainage Canal MMMP, any Potential Mediation Party may refer the dispute to mediation by request made in writing to the other Potential Mediation Parties. Except in an Emergency, a disputed proposed use or activity shall not proceed until the dispute has been mediated as provided herein. Within ten (10) days of the receipt of a request for mediation, the Potential Mediation Parties involved in the dispute ("Mediation Parties") shall select a single trained and impartial mediator. The USFWS and the CDFG may, but shall not be obligated to, participate in the mediation in any way. If the Mediation Parties are unable to agree on the selection of a single mediator, then they shall, within fifteen (15) days after receipt of the initial request, jointly apply to a proper court for the appointment of a trained and impartial mediator. Mediation shall then proceed in accordance with the following guidelines:

1. The purpose of the mediation shall be to: (1) promote discussion between the Mediation Parties, (2) assist the Mediation Parties to develop and exchange pertinent information concerning the issue(s) in dispute, and (3) assist the Mediation Parties to develop proposals that will enable them to arrive at a mutually acceptable resolution of the controversy. Grantor, Grantee, USFWS and CDFG shall each not be bound by any provision of any resolution or settlement resulting from mediation unless that entity has expressly accepted and agreed to such provision in writing.

2. The mediator may meet with the Mediation Parties and their counsel jointly or ex parte. The Mediation Parties shall participate in the mediation process in good faith and expeditiously, attending all sessions scheduled by the mediator. Representatives of the Mediation Parties, who shall have settlement authority (subject to governing board approval where such approval is required), will attend mediation sessions as requested by the mediator.

3. All information presented to the mediator shall be deemed confidential and shall be disclosed by the mediator only with the

prior consent of the Mediation Parties or their respective counsel. The mediator shall not be subject to subpoena by any Mediation Party. No statements made or documents prepared by any Mediation Party for mediation sessions shall be disclosed or utilized in any manner by any other Mediation Party in any subsequent proceeding, nor shall such statements or documents be construed as an admission of a Mediation Party.

4. No Mediation Party shall be obligated to continue the mediation process either: (1) beyond a period of forty-five (45) days from the date of receipt of the initial request for mediation, or (2) if the mediator concludes that there is no reasonable likelihood that continuing mediation will result in a mutually agreeable resolution of the dispute.

5. In the event that mediation does not result in a mutually agreeable resolution of the dispute, the Mediation Parties agree that they shall have the right to pursue all remedies which may be available to them at law or in equity.

6. The costs of the mediator shall be borne equally by the Mediation Parties, except that USFWS and CDFG may elect not to bear any portion of the costs of the mediator, and each Mediation Party shall bear its own expenses, including attorneys' fees.

7. Notwithstanding anything to the contrary in this Easement, USFWS and CDFG shall not be required to participate in any mediation process. Further, nothing in this Easement is intended or shall be construed to authorize Grantor or Grantee to undertake any activity in violation of, or without required authorization, if any, under, FESA or CESA or other applicable federal or state law.

I. Payment for Damage. Grantor acknowledges that the payments made or to be made by Grantee and other consideration recited above is in full payment for the above-conveyed rights and privileges as well as for all damage, past, present and future, which the Drainage Canal Area has suffered or may suffer by reason of its use for the above-described drainage and irrigation, flood control, and conservation purposes, provided that this Paragraph shall not limit, reduce or in any way affect the Parties' rights and obligations under Paragraphs L.4 and L.5, below.

J. Compensation for Drainage Canal Facilities. Grantor does hereby waive all claim or claims for any and all additional compensation for and on account

of the location, establishment, construction, reconstruction, repair, operation and maintenance of drainage canal facilities and appurtenances thereto upon the Drainage Canal Area in accordance with the provisions hereof, provided that this Paragraph shall not limit, reduce or in any way affect the Parties' rights and obligations under Paragraph L.4, below.

K. Grantee's Remedies

1. If Grantee determines that a violation of this Easement has occurred or is threatened, Grantee shall give written notice to Grantor of such violation and demand in writing the cure of such violation ("Notice of Violation"). If Grantor fails to cure the violation within thirty (30) days after receipt of a Notice of Violation, or if the cure reasonably requires more than thirty (30) days to complete and Grantor fails to begin the cure within the thirty (30)-day period or fails to continue diligently to complete the cure, Grantee may bring an action at law or in equity in a court of competent jurisdiction for any or all of the following: to recover any damages to which Grantee may be entitled for violation of the terms of this Easement or for any injury to the Conservation Values, Drainage and Irrigation Values, or Flood Control Values of the Drainage Canal Area; to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies; to pursue any other legal or equitable relief, including but not limited to, the restoration of the Drainage Canal Area to the condition in which it existed prior to any violation or injury; or to otherwise enforce this Easement. Without limiting the liability of Grantor, Grantee may apply any damages recovered to the cost of undertaking any corrective action on the Drainage Canal Area.

2. If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate injury to the Conservation, Flood Control or Drainage and Irrigation Values of the Drainage Canal Area, Grantee may pursue its remedies under this Easement without prior notice to Grantor or without waiting for the period provided for cure to expire. Grantee's rights under this section apply equally to actual or threatened violations of this Easement.

3. Grantor agrees that Grantee's remedies at law for any violation of this Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this section, both prohibitive and

mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity. The failure of Grantee to discover a violation or to take immediate legal action shall not bar Grantee from taking such action at a later time.

4. Any failure by Grantee to exercise its rights and duties under this Easement in the event of any breach of any term of this Easement shall not be deemed or construed to be a waiver of such term or of any subsequent breach of the same or any other term of this Easement or of any rights of Grantee under this Easement. No delay or omission by Grantee in the exercise of any right or remedy shall impair such right or remedy or be construed as a waiver.

L. Costs, Liabilities, Taxes, Indemnification, and Environmental Compliance.

1. Costs, Liabilities and Responsibilities. As between the Parties, and except as expressly agreed in writing by the Parties in this Easement or otherwise: (a) Grantor shall, to the extent not Grantee's responsibility as provided herein, bear all responsibilities, costs and liabilities of every kind related to Grantor's ownership, operation, upkeep, and maintenance of the Drainage Canal Area; and (b) Grantee shall be liable for all responsibilities, costs and liabilities of every kind arising from Grantee's use of the Drainage Canal Area for drainage, irrigation, and conservation purposes and/or arising from Grantee's exercise of any right, privilege or obligation under this Easement. Grantor shall keep the Drainage Canal Area free of any liens arising out of any work performed for, materials furnished to, or obligations incurred by Grantor, and Grantee shall keep the Drainage Canal Area free of any liens arising out of any work performed for, materials furnished to, or obligation incurred by Grantee.

2. Taxes. Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description properly levied on or assessed against the Drainage Canal Area by competent authority (collectively "taxes"), including Grantee, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantee shall pay any taxes, assessments, fees or charges imposed upon, or incurred as a result of this Easement and/or the exercise of any rights

hereunder.

3. Remediation. If, at any time, Grantor, its governing body, officers, employees, agents, lessees, contractors or any other person or entity employed by or acting on its behalf causes or has caused a release in, on, or about the Drainage Canal Area of any substance now or hereafter defined, listed, or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment ("Hazardous Substances"), Grantor agrees to take all steps required by law to assure its containment and remediation, including any cleanup that may be required. If, at any time, Grantee, its governing body, officers, employees, agents, lessees, contractors or any other person or entity employed by or acting on its behalf causes a release in, on, or about the Drainage Canal Area of any Hazardous Substances, Grantee shall take all steps required by law to assure its containment and remediation, including any cleanup that may be required.

   Notwithstanding the foregoing, Grantor and Grantee expressly agree that any environmental contamination found on the property commonly known as the Yuki property, shall be remediated and monitored in the manner set forth in the Master Agreement Between the County of Sacramento and the Sacramento Area Flood Control Agency Regarding the Natomas Levee Improvement Program, dated _____, 2009.

4. Hold Harmless.

   a. Each Party ("Indemnifying Party") shall hold harmless, indemnify, and defend (with counsel approved by the Party to be defended, which approval shall not be withheld unreasonably) the other Party, its governing body, directors, officers, employees, agents, lessees, and contractors as well as each of their heirs, personal representatives, successors, and assigns (collectively "Indemnified Party") from and against all liabilities, penalties, fines, charges, costs, losses, damages, expenses, causes of action, claims, demands, judgments or administrative actions, including, without limitation, reasonable attorney's fees (collectively "Liabilities"), resulting from any act, omission, condition, or other matter related to or occurring on or about the Drainage

Canal Area and caused by the Indemnifying Party, its governing body, officers, employees, agents, lessees, contractors, or any other person or entity employed by or acting on its behalf, or any breach of an Indemnifying Party's obligations under this Easement. The actions, omissions, conditions, or other matters referenced above shall include, without limitation, the use, storage, treatment, transportation, release, or disposal of Hazardous Substances on or about the Drainage Canal Area, even if such release of Hazardous Substances occurred prior to the date of this Easement but after the date on which the Grantor acquired the portion(s) of the Drainage Canal Area affected by the release. The Liabilities referenced above shall include, without limitation, reasonable attorney's fees arising from or in any way connected with the injury to or the death of any person, or physical damage to any property. Notwithstanding the foregoing, in no event shall the indemnity of Grantee in this paragraph extend to any Liabilities of Grantor arising from the failure of Grantee's flood control facilities to provide flood protection. The above provisions shall survive the recording of any deeds hereunder.

b. Grantee shall hold harmless, protect and indemnify any Third-Party Beneficiary and its respective directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Third-Party Beneficiary Indemnified Party" and collectively, "Third-Party Beneficiary Indemnified Parties") from and against any and all Liabilities arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Drainage Canal Area, regardless of cause and (ii) the existence or administration of this Easement. *Provided, however,* that the indemnification in this subsection shall be inapplicable to a Third-Party Beneficiary Indemnified Party with respect to any claim due solely to the negligence of that Third-Party Beneficiary Indemnified Party or any of its employees. If any action or proceeding is brought against any of the Third-Party Beneficiary Indemnified Parties by reason of any claim to which the indemnification in this subsection applies, then at the election of and upon written notice from the Third-Party

Beneficiary Indemnified Party, Grantee shall defend such action or proceeding by counsel reasonably acceptable to the applicable Third-Party Beneficiary Indemnified Party or reimburse the Third-Party Beneficiary Indemnified Party for all charges incurred for services of the California Attorney General or the U.S. Department of Justice in defending the action or proceeding.

5. Environmental Compliance. Despite any contrary provision of this Easement, the Parties do not intend this Easement to be, and this Easement shall not be, construed such that it creates in or gives to the Approving Agencies any of the following:

a. The obligations or liability of an "owner" or "operator," as those terms are defined and used in any federal, state, local or administrative agency statute, ordinance, rule, regulation, order, or requirement relating to pollution, protection of human health and safety, the environment or Hazardous Substances (collectively “Environmental Laws”), including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. § 9601, et seq.); or

b. The obligations or liabilities of a person described in 42 U.S.C. § 9607(a)(3) or (4); or

c. The obligations of a responsible person under any applicable Environmental Laws; or

d. The right to investigate and remediate any Hazardous Substances associated with the Drainage Canal Area; or

e. Any control over Grantor's or Grantee’s ability to investigate, remove, remediate or otherwise clean up any Hazardous Substances associated with the Drainage Canal Area, provided however that this provision is not intended to and does not affect Grantor’s and Grantee’s responsibilities to comply with FESA and CESA and other applicable federal or State laws with regard to actions involving Hazardous Substances.

M. Acts Beyond the Parties’ Control. Nothing contained in this Easement shall be construed to entitle Grantee to bring any action against Grantor or

Grantor to bring any action against Grantee for any injury to or change in the Drainage Canal Area resulting from any natural cause beyond the Parties' control, including, without limitation, fire not caused by Grantor or Grantee, flood, storm, and earth movement, aircraft accident, or any prudent action taken by Grantor or Grantee under Emergency conditions to prevent, abate, or mitigate significant injury to the Drainage Canal Area resulting from such causes.

N. Disclaimer. Grantor hereby represents and warrants that Grantee has made no representation or warranty regarding the type or quality of flood protection now or hereinafter provided to Grantor, the Drainage Canal Area or the Airport and that any improvements constructed by Grantor in and around the Drainage Canal Area and Airport shall be made at Grantor's sole risk.

O. Access. This Easement does not convey a general right of access to the Drainage Canal Area to the public; however, Grantor and Grantee agree that the USFWS, Corps, and CDFG may enter and inspect the Drainage Canal Area at reasonable times to ensure the protection of the Conservation Values, consistent with this Easement and the Upper GGS/Drainage Canal MMMP, provided that at least 24 hours advance notice is provided to Grantor.

P. Amendment. This Easement may be amended only with the express written consent of Grantor, Grantee, USFWS, and CDFG. Any amendment to this Easement shall be consistent with the purposes of this Easement and shall not affect the Easement's perpetual duration. Any such amendment shall be recorded in the official records of the County of Sacramento, State of California, and Grantee shall promptly provide a copy of the recorded amendment to Grantor, USFWS, and CDFG.

Q. Joint Use. The Parties understand and agree that Grantee may jointly exercise, or jointly use, in whole or in part, Grantee's rights under this Easement with the Sacramento-San Joaquin Drainage District and/or Reclamation District 1000. Any other joint use by Grantee of this Easement or any of Grantee's rights under this Easement may only be made to an entity or organization reasonably acceptable to, and with the prior written consent of, the Approving Agencies; such consent may be withheld if the Approving Agencies determine that the proposed joint use is inconsistent with the purposes of this Easement or will impair or interfere with the Conservation Values of the Drainage Canal Area.

R. Additional Interests. Grantor shall not grant any additional easements, rights of way or other interests in the Drainage Canal Area (other than a security interest that is expressly subordinated to this Easement), nor shall Grantor grant, transfer, abandon or relinquish (each a "Transfer") any mineral, air, or water right or any water associated with the Drainage Canal Area, without first obtaining the written consent of Grantee, and the Approving Agencies. Such consent may be withheld if Grantee, or the Approving Agencies determine(s) that the proposed interest or Transfer is inconsistent with the purposes of this Easement or will impair or interfere with the Conservation Values of the Drainage Canal Area. This Paragraph shall not limit or prohibit transfer of a fee or leasehold interest in the Drainage Canal Area that is subject to this Easement and complies with this Paragraph. Grantor shall provide a copy of any recorded or unrecorded grant or Transfer document to the Grantee and the Approving Agencies within 30 days of the transfer thereof.

S. Third Party Beneficiary. Grantor and Grantee and their respective heirs, personal and legal representatives, transferees, successors and assigns represent, acknowledge, covenant and agree as follows:

1. USFWS is the intended third party beneficiary of this Easement, with the right, subject to and on the terms set forth in this Paragraph ST, to exercise independent enforcement authority against Grantor or Grantee and otherwise enjoy all of the enforcement rights and remedies of Grantor or Grantee subject to the procedures set forth herein below and the right of reasonable access to the Drainage Canal Area as set forth in Paragraph O. Toward this end, USFWS shall perform, at a minimum on an annual basis, compliance monitoring inspections and shall prepare reports on the results of these inspections which shall be provided to Grantee and Grantor.

2. If USFWS determines that Grantor or Grantee has approved, permitted, or consented to a proposed activity or use that is inconsistent with the Conservation Values of this Easement, USFWS, as intended third party beneficiary of this Easement, notwithstanding any prior approval, consent, or representation by Grantor or Grantee, as applicable, or any exercise or non-exercise by Grantor or Grantee, as applicable, of their rights, shall have the right, but not the duty, upon reasonable prior written notice to Grantee and Grantor and, where reasonably feasible, after conferring with Grantee and Grantor, to enjoin the inconsistent activity or use or compel performance of Grantor or Grantee, as applicable, and

otherwise exercise any and all of the rights or remedies of Grantor and Grantee under the provisions of this Easement.

3. If USFWS determines that circumstances require immediate action to prevent or mitigate injury to the Conservation Values of the Drainage Canal Area, USFWS may pursue its remedies under this Easement without prior notice to Grantee or Grantor. USFWS' rights under this Paragraph apply equally to actual or threatened violations of this Easement.

4. If USFWS exercises any of the remedies afforded to it under this Paragraph S, any sum recovered from such suit or other proceeding shall be applied first to cover USFWS' costs of enforcement.

5. The failure by USFWS to enforce any of Grantor's or Grantee's rights shall in no event be deemed a waiver of the right to do so thereafter.

6. Grantee and Grantor shall not cancel, terminate, amend, or rescind this Easement without the express written consent of USFWS.

T. Recordation. SAFCA shall promptly record this Easement in the official records of the County of Sacramento, State of California, and may re-record it at any time as may be required to preserve its rights under this Easement.

U. Funding. Funding for the perpetual management, maintenance and monitoring of the Drainage Canal Area is specified in and governed by the Upper GGS/Drainage Canal MMMP.

V. Subsequent Transfers. Grantor agrees to incorporate the terms of this Easement by reference in any future deed or other future legal instrument by which Grantor divests itself of any interest in all or a portion of the Drainage Canal Area subsequent to the recording of this Easement by Grantee, including, without limitation, a leasehold interest. The failure of Grantor to perform any act required by this Paragraph shall not impair the validity of this Easement or limit its enforceability in any way.

W. Mitigation Credit. The Parties agree that this Easement is, in part, being executed to mitigate the effects of the dewatering and reconfiguration of the West Ditch by the County. The Parties hereby agree that any mitigation credits this Easement may produce shall be allocable to the County.

X. Notices. Any notice, demand, request, consent, approval, or communication given pursuant to this Easement shall be in writing and either served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor: Director of the Sacramento
County Airport System
County of Sacramento
6900 Airport Blvd.
Sacramento, CA 95837

To Grantee: Executive Director & Agency Counsel
Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor
Sacramento, CA 95814

To Grantee's and Grantor's successor or assign, as applicable.

To the USFWS: Field Supervisor
U.S. Fish and Wildlife Service
Sacramento Field Office
2800 Cottage Way, W-2605
Sacramento, CA 95825

To the CDFG: Regional Manager
California Department of Fish and Game
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

With a courtesy copy to such other address or the attention of such other officer as from time to time a listed entity may designate by written notice to the others.

Y. Merger. The doctrine of merger shall not operate to extinguish this Easement if the Easement and the Drainage Canal Area become vested in the same party. If, despite this intent, the doctrine of merger applies to extinguish the Easement then, unless Grantor, Grantee, and the Approving Agencies otherwise agree in writing, a replacement conservation easement or restrictive covenant containing the same protections embodied in this Easement shall be recorded against the Drainage Canal Area.

Z. Controlling Law. The interpretation and performance of this Easement shall be governed by the laws of the State of California and applicable Federal laws.

AA. Severability. If any provision of this Easement, or the application thereof to any person or circumstances, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

BB. Entire Agreement. This instrument, including each of the Exhibits hereto, sets forth the entire agreement of the Parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to this Easement.

CC. Successors. The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of, the Parties hereto and their respective successors and assigns and shall continue as a servitude running in perpetuity with the Drainage Canal Area. The terms "Grantor" and "Grantee," wherever used herein, and any pronouns used in place thereof, shall include, respectively, the above-named Grantor and its successors and assigns, and the above-named Grantee and its successors and assigns.

DD. Termination of Rights and Obligations. A Party's rights and obligations under this Easement terminate upon transfer of the Party's interest in the Easement or Drainage Canal Area, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

EE. Construction of Easement. The captions in this Easement are provided solely for convenience of reference and are not part of this Easement and shall have no effect on its construction or interpretation. This Easement shall not be construed as if prepared by one of the Parties, but rather according to this fair meaning as a whole, as if all the Parties had prepared it. Despite any general rule of construction to the contrary, this Easement shall be liberally construed to effect the conservation, drainage and irrigation, and flood control purposes of this Easement. If any provision in this Easement is found to be ambiguous, an interpretation consistent with the purposes of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

FF. Incorporation of Recitals and Introductory Paragraph. The Recitals contained in this Easement, and the introductory paragraph preceding the

Recitals, are hereby incorporated into this Easement as if fully set forth herein.

GG. Exhibits Incorporated by Reference. All exhibits and schedules attached to this Easement are incorporated into this Easement by this reference.

HH. Further Assurances. The Parties hereby agree to cooperate with each other by executing such other documents or taking such other action as may be reasonably necessary to complete this transaction in accordance with the intent of the Parties as evidenced in this Easement.

II. Counterparts. The Parties may execute this instrument in counterparts, all of which, when taken together shall constitute a fully executed original. Photocopies of this Easement or of execution signatures on this Easement, or copies made by comparable means (including copies made by facsimile), shall be equivalent to originals.

IN WITNESS WHEREOF, Grantor and Grantee have entered into this Easement the day and year first above written.

GRANTOR:
The County of Sacramento

By: _____
G. Hardy Acree
Director Sacramento County
Airport System
County of Sacramento

APPROVED AS TO FORM:

By: _____
Deputy County Counsel

ATTEST:

By: _____
County Clerk

GRANTEE:
Sacramento Area Flood Control Agency,
a joint exercise of power agency of the
State of California

By: _____
Stein M. Buer
Executive Director
Sacramento Area Flood Control
Agency

APPROVED AS TO FORM:

By: _____
Agency Counsel
Sacramento Area Flood Control
Agency

p:\safca\natomas levees\nlip easements -- airport, safca, tnbc lands\drainage canal easement on airport property (3-11-09 clean).doc

State of California
County of _____

On _____, before me, _____,

Notary Public, personally appeared (insert name and title of the officer) _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Notary Public

(seal)

State of California
County of _____

On _____, before me, _____,

Notary Public, personally appeared (insert name and title of the officer) _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Notary Public

(seal)

Exhibit A
Map of Drainage Canal Area

Exhibit B
Description of Drainage Canal Area

Exhibit C
Description/map of West Ditch

EXHIBIT D

Natomas Levee Improvement Program Phase 2
Mitigation and Monitoring Plan

EXHIBIT E

Natomas Levee Improvement Program
Programmatic Long Term Management Plan

EXHIBIT F

Natomas Levee Improvement Program
Upper Giant Garter Snake/Drainage Canal Site Specific Management Plan

P:\SAFCA\Natomas Levees\NLIP Easements -- Airport, SAFCA, TNBC Lands\Drainage Canal Easement on Airport Property (3-11-09 CLEAN).doc

B2 Conservation Easement Deed – Novak Property

No Recording Fee per Gov't Code § 6103
No Documentary Transfer Tax per R&T Code
§ 11922 - Governmental Acquisition

Recording Requested By:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
	)
When recorded, mail to:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
1007 7th Street, 7th Floor	)
Sacramento, CA 95814	)

Parcel No.: 35-080-021

Space Above Line for Recorder's Use Only

CONSERVATION EASEMENT DEED

NOVAK PROPERTY

THIS CONSERVATION EASEMENT DEED ("Conservation Easement" or "Easement") is made as of the _____ day of _____, 2008, by the Sacramento Area Flood Control Agency ("SAFCA" or "Grantor"), in favor of the Natomas Basin Conservancy ("TNBC") and TNBC's successors and assigns, (collectively "Grantee"). Grantor and Grantee, and each of their respective successors and assigns are sometimes hereinafter referred to collectively as "Parties" and individually as a "Party."

RECITALS

A. Grantor is a joint powers agency authorized under the laws of the State of California to hold title to real property, to take actions to protect life, property, watercourses, watersheds, and highways from damage from flood and storm waters, and to carry out its responsibilities in a manner that provides for the optimum protection of the natural environment, especially riparian habitat and natural stream channels suitable for native plant and wildlife habitat and public recreation.

B. Grantor is the sole owner in fee simple of certain real property, commonly referred to as the Novak Property which comprises a tract of land of approximately 94

acres designated Sacramento County APN ____ (the "Property"), located in the southern portion of the Natomas Basin, near the junction of Powerline Road and the Sacramento River east levee. The Property is legally described and shown in Exhibit A attached to this Conservation Easement and incorporated herein by this reference.

C. The Property possesses significant agricultural, open space, and wildlife habitat values (collectively "Conservation Values") that support a diverse assemblage of wildlife species within the Natomas Basin, including the giant garter snake, which is protected under the Federal Endangered Species Act, 16 U.S.C. section 1531 et seq. ("FESA") and the Swainson's hawk, which is protected under the California Endangered Species Act, Fish and Game Code section 2050 et seq. ("CESA"). Preservation of these Conservation Values is of great importance to Grantee, the people of the State of California and the people of the United States.

D. SAFCA has initiated the Natomas Levee Improvement Program ("NLIP"), which includes alterations to the levee along the east bank of the Sacramento River in the vicinity of the Property. These alterations, which will be accomplished in part through the use of soil material excavated and removed from the Property, must be permitted by the U.S. Army Corps of Engineers ("Corps") under 33 U.S.C. section 408 and by the Central Valley Flood Protection Board under Title 23 of the California Code of Regulations. Because the alterations could affect the giant garter snake and its habitat and the Swainson's hawk and its habitat, the permits will include mandatory terms and conditions identified by the U.S. Fish and Wildlife Service ("USFWS"), and agency within the United States Department of the Interior, pursuant to FESA (Biological Opinion USFWS File No. 81420-2008-F-0195) and by the California Department of Fish and Game ("CDFG") pursuant to CESA that will fully mitigate any unavoidable losses of such species and their habitat.

E. Grantee is a public benefit non-profit corporation organized under the laws of the State of California. Grantee's mission is to serve as the Plan Operator for implementing the Natomas Basin Habitat Conservation Plan ("NBHCP"). Grantee is authorized to hold this conservation easement pursuant to California Civil Code Section 815.3 and Government Code section 65965. Specifically, Grantee is (i) a tax-exempt nonprofit organization qualified under section 501(c) (3) of the Internal Revenue Code of 1986, as amended, and qualified to do business in California; (ii) a "qualified organization" as defined in section 170 (h) (3) of the Internal Revenue Code; and (iii) an organization which has as its primary and principal purpose and activity the protection and preservation of natural lands or resources in their natural, scenic, agricultural, forested, or open space condition or use.

F. SAFCA has developed a Mitigation and Monitoring Plan ("MMP") and a Long Term Management Plan ("LTMP") which contain provisions specifically applicable to the Property in order to satisfy the requirements of FESA and CESA. The

MMP, attached hereto as Exhibit B and incorporated herein, identifies the habitat features that SAFCA will create and preserve in NLIP Phase 2 and measures that SAFCA will implement to ensure that the Property is reclaimed to a suitable condition for field crop production following soil excavation, removal and grading activities. The LTMP, attached hereto as Exhibit C and incorporated herein, describes NLIP habitat linkage to the NBHCP, and the long-term management principles, easements, management agreements, and funding mechanisms that will apply to the habitat features, including the Property. The MMP and LTMP have been approved by the Corps, USFWS, and CDFG (collectively, "Approving Agencies"). Any future modifications or amendments to the MMP or the LTMP must be approved in writing by the Approving Agencies. Final copies of the MMP and LTMP and any amendments thereto shall be kept on file at the respective offices of the Approving Agencies. If Grantor, or any successor or assign, requires an official copy of the MMP or LTMP, it should request a copy from one of the Approving Agencies at its address for notices listed herein.

G. The Parties have agreed upon the payments or other compensation to be made by Grantor to Grantee for Grantee's maintenance of this Easement. The details of Grantor's responsibilities to compensate Grantee are described in a separate Master Agreement between the Natomas Basin Conservancy and the Sacramento Area Flood Control Agency regarding the Natomas Levee Improvement Program ("Master Agreement"). The Master Agreement is incorporated by reference into this Conservation Easement as though fully set forth herein.

H. All section numbers referred to in this Conservation Easement are references to sections within this Conservation Easement, unless otherwise indicated.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and pursuant to the laws of the United States and the State of California, including California Civil Code Section 815, et seq., Grantor hereby voluntarily grants and conveys to Grantee a conservation easement in perpetuity over the Property.

1. Purposes. The purposes of this Conservation Easement are to ensure that the Property will be retained forever in field crop production as contemplated in the MMP and the LTMP, and to prevent any use of the Property that will impair or interfere with the Conservation Values of the Property. Grantor intends that this Conservation Easement will confine the use of the Property to activities that are consistent with such purposes, as set forth in the MMP and LTMP, including, without limitation, those involving the preservation, restoration and enhancement of field crop production and the habitat provided by land in field crop production.

2. Grantee's Rights. This Easement shall entitle Grantee and/or its successors or assignees to exercise the following rights and privileges on the Property:

(a) To grow, cultivate, plant, harvest, weed, irrigate, and rotate appropriate agricultural crops, consistent with best management practices for field crop production within the Natomas Basin as set forth in the MMP and the LTMP.

(b) To grade, level, drain, install irrigation, install drainage or carry out other maintenance activities as set forth in the MMP and the LTMP in order to maintain the Conservation Values of the Property.

(c) To enter the Property at reasonable times, in order to monitor compliance with and otherwise enforce the terms of this Conservation Easement, the MMP and the LTMP and to implement at Grantee's sole discretion the LTMP activities that have not been implemented, provided that Grantee shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property.

(d) To prevent any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this Conservation Easement.

(e) To require that all mineral, air and water rights as Grantee deems necessary to preserve and protect the biological resources and Conservation Values of the Property shall remain a part of and be put to beneficial use upon the Property, consistent with the purposes of this Conservation Easement.

(f) All present and future development rights appurtenant to, allocated, implied, reserved or inherent in the Property; such rights are hereby terminated and extinguished, and may not be used on or transferred to any portion of the Property, nor any other property adjacent or otherwise.

3. Prohibited Uses. Any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement is prohibited. Without limiting the generality of the foregoing, the following uses and activities by Grantor, Grantor's agents, and third parties are expressly prohibited:

(a) Recreational activities, including, but not limited to, horseback riding, biking, hunting or fishing.

(b) Non-agricultural commercial, industrial, residential, or institutional uses.

(c) Any legal or de facto division, subdivision or partitioning of the Property.

(d) Construction, reconstruction, erecting or placement of any non-agricultural building, billboard or signs, or any other non-agricultural structure or improvement of any kind

(e) Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other materials except as specifically provided in the MMP or the LTMP.

(f) Planting, introduction or dispersal of non-native or exotic plant or animal species.

(g) Filling, dumping, excavating, draining, dredging, mining, drilling, removing or exploring for or extracting minerals, loam, soil, sand, gravel, rock or other material on or below the surface of the Property, or granting or authorizing surface entry for any of these purposes, except as specifically provided in the MMP or LTMP.

(h) Altering the surface or general topography of the Property, including but not limited to any alterations to habitat, building roads or trails, paving or otherwise covering the Property with concrete, asphalt or any other impervious material except as specifically provided in the MMP or LTMP.

(i) Removing, destroying, or cutting of trees, shrubs or other vegetation, except as required by law for (i) fire breaks, (ii) maintenance of existing foot trails or roads, (iii) prevention or treatment of disease, or (iv) as specifically provided in the MMP or LTMP.

(j) Manipulating, impounding or altering any natural water course, body of water or water circulation on the Property, and any activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters, except as specifically provided in the MMP or LTMP.

(k) Without the prior written consent of Grantee, which Grantee may withhold, transferring, encumbering, selling, leasing, or otherwise separating the mineral, air or water rights for the Property; changing the place or purpose of use of the water rights; abandoning or allowing the abandonment of, by action or inaction, any water or water rights, ditch or ditch rights, spring rights, reservoir or storage rights, wells, ground water rights, or other rights in and to the use of water historically used on or otherwise appurtenant to the Property, including but not limited to: (i) riparian water rights; (ii) appropriative water rights; (iii) rights to waters which are secured under contract with any irrigation or water district, to the extent such waters are customarily applied to the Property; and (iv) any water from wells that are in existence or may be constructed in the

future on the Property.

(l) Engaging in any use or activity that may violate, or may fail to comply with, relevant federal, state, or local laws, regulations, or policies applicable to Grantor, the Property, or the use or activity in question.

4. Grantee's Duties.

(a) To ensure that the purposes of this Conservation Easement as described in Section 1 are being accomplished, Grantee and its successors and assigns shall:

Perform, at a minimum on an annual basis, compliance monitoring inspections of the Property consistent with the LTMP; and

Prepare reports on the results of the compliance monitoring inspections, and provide these reports to the Approving Agencies on an annual basis.

(b) In the event that the Grantee's interest in this easement is held by, reverts to, or is transferred to the State of California, Section 4(a) shall not apply.

5. Grantor's Duties. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property or that are otherwise inconsistent with this Conservation Easement. In addition, Grantor shall undertake all necessary actions to perfect and defend Grantee's rights under Section 2 of this Conservation Easement, and to observe and carry out the obligations of Grantor under the MMP and the LTMP.

6. Grantor's Uses and Notification Obligations. The prohibitions contained in this Easement are not intended to preclude Grantor from its planned use of the Property for borrow material for the NLIP consistent with the MMP. Upon completion of these borrow activities and reclamation of the Property for field crop production, Grantor shall not undertake any further modifications to the flood control system or any other physical improvements to the Property that fall within the Prohibited Uses identified in Paragraph 3 above or that are inconsistent with the purposes of this Easement unless Grantor provides notice to Grantee and the Approving Agencies with a description of the proposed action, including an explanation of the necessity for the action, supported by data or relevant engineering information not less than sixty (60) days prior to the date Grantor intends to initiate this action and shall indicate whether the proposed action will require any additional compliance with FESA or CESA.

(a) Grantee and the Approving Agencies shall independently review this information and, within thirty (30) days of the receipt of Grantor's description, identify in

writing any potential conflict between the proposed action and the Prohibited Uses, or the Conservation Values of this Easement, or the requirements of FESA or CESA. If no written comments are received within this 30-day period, the proposed action shall be deemed acceptable.

(b) Grantor shall make a reasonable effort to modify the proposed action so as to avoid any conflict(s) identified by Grantee or the Approving Agencies. Grantor shall report back to Grantee within fifteen (15) days of receipt of any written comment regarding Grantor's plan to avoid such conflict(s).

(c) In the absence of any conflict with respect to the described action or upon resolution of any such conflict, Grantor shall proceed with its proposed action, provided that it shall not substantially alter the action without re-initiating the review process outlined in the immediately preceding subsections of this Paragraph. However, the mandatory procedures outlined in the immediately preceding subsections shall not apply in those instances when Grantor in good faith determines that due to an Emergency, it cannot comply with such procedures. In such Emergencies, Grantor will make a reasonable effort to notify Grantee and the Approving Agencies prior to initiating any such activities. Fax or phone notification, with written follow-up, will be deemed adequate.

7. Reserved Rights.

Grantor reserves to itself, and to its personal representatives, heirs, successors, and assigns, all rights accruing from Grantor's ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited or limited by, and are consistent with the purposes of, this Conservation Easement.

8. Grantee's Remedies.

If Grantee determines that a violation of this Conservation Easement has occurred or is threatened, Grantee shall give written notice to Grantor of such violation and demand in writing the cure of such violation ("Notice of Violation"). If Grantor fails to cure the violation within thirty (30) days after receipt of a Notice of Violation, or if the cure reasonably requires more than thirty (30) days to complete and Grantor fails to begin the cure within the thirty (30)-day period or fails to continue diligently to complete the cure, Grantee may bring an action at law or in equity in a court of competent jurisdiction for any or all of the following: to recover any damages to which Grantee may be entitled for violation of the terms of this Conservation Easement or for any injury to the Conservation Values of the Property; to enjoin the violation, ex parte as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies; to pursue any other legal or equitable relief, including but not limited to, the restoration of the Property to the condition in which it existed prior to any violation or injury; or to otherwise enforce this

Conservation Easement. Without limiting the liability of Grantor, Grantee may apply any damages recovered to the cost of undertaking any corrective action on the Property.

If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate injury to the Conservation Values of the Property, Grantee may pursue its remedies under this Conservation Easement without prior notice to Grantor or without waiting for the period provided for cure to expire. Grantee's rights under this section apply equally to actual or threatened violations of this Conservation Easement.

Grantor agrees that Grantee's remedies at law for any violation of this Conservation Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this section, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of this Conservation Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity, including but not limited to the remedies set forth in California Civil Code Section 815, et seq. The failure of Grantee to discover a violation or to take immediate legal action shall not bar Grantee from taking such action at a later time.

(a) Costs of Enforcement.

All costs incurred by Grantee, where Grantee is the prevailing party, in enforcing the terms of this Conservation Easement against Grantor, including, but not limited to, costs of suit and attorneys' and experts' fees, and any costs of restoration necessitated by negligence or breach of this Conservation Easement, shall be borne by Grantor.

(b) Grantee's Discretion.

Enforcement of the terms of this Conservation Easement by Grantee shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Conservation Easement in the event of any breach of any term of this Conservation Easement shall not be deemed or construed to be a waiver of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any rights of Grantee under this Conservation Easement. No delay or omission by Grantee in the exercise of any right or remedy shall impair such right or remedy or be construed as a waiver.

(c) Acts Beyond Grantor's Control.

Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from (i) any natural cause beyond Grantor's control, including, without

limitation, fire not caused by Grantor, flood, storm, and earth movement, or any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes; or (ii) acts by Grantee or its employees.

(d) Enforcement; Standing.

All rights and remedies conveyed to Grantee under this Conservation Easement shall extend to and are enforceable by the Third-Party Beneficiaries (as defined in Section 15(m)). These enforcement rights are in addition to, and do not limit, the rights of enforcement under the MMP or the LTMP. If at any time in the future Grantor uses, allows the use, or threatens to use or allow use of, the Property for any purpose that is inconsistent with or in violation of this Conservation Easement then, despite the provisions of California Civil Code Section 815.7, the California Attorney General and the Third-Party Beneficiaries each has standing as an interested party in any proceeding affecting this Conservation Easement.

(e) Notice of Conflict.

If Grantor receives a Notice of Violation from Grantee or a Third-Party Beneficiary with which it is impossible for Grantor to comply consistent with any prior uncured Notice(s) of Violation, Grantor shall give written notice of the conflict (hereinafter "Notice of Conflict") to the Grantee and Third-Party Beneficiaries. In order to be valid, a Notice of Conflict shall be given within fifteen (15) days of the date Grantor receives a conflicting Notice of Violation, shall include copies of the conflicting Notices of Violation, and shall describe the conflict with specificity, including how the conflict makes compliance with the uncured Notice(s) of Violation impossible. Upon issuing a valid Notice of Conflict, Grantor shall not be required to comply with the conflicting Notices of Violation until such time as the entity or entities issuing said conflicting Notices of Violation issue(s) revised Notice(s) of Violation that resolve the conflict. Upon receipt of a revised Notice of Violation, Grantor shall comply with such notice within the time period(s) described in the first grammatical paragraph of this Section. The failure of Grantor to issue a valid Notice of Conflict within fifteen (15) days of receipt of a conflicting Notice of Violation shall constitute a waiver of Grantor's ability to claim a conflict.

(f) Reversion.

If the Approving Agencies determine that Grantee is not holding, monitoring or managing this Conservation Easement for conservation purposes in the manner specified in this Conservation Easement or in the MMP or the LTMP, or if Grantor does not provide funding for the perpetual management, maintenance and monitoring of the Property, as specified in and governed by the MMP, LTMP, and Master Agreement, then, pursuant to California Government Code Section 65965(c), this Conservation Easement shall revert to the State of California, or to another public agency or nonprofit organization qualified pursuant to Civil Code Section 815.3 and Government

Code Section 65965 (and any successor or other provision(s) then applicable) and approved by the Approving Agencies.

9. Access.

This Conservation Easement does not convey a general right of access to the public.

10. Costs and Liabilities.

Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property. Grantor agrees that neither Grantee nor Third-Party Beneficiaries shall have any duty or responsibility for the operation, upkeep or maintenance of the Property, the monitoring of hazardous conditions on it, or the protection of Grantor, the public or any third parties from risks relating to conditions on the Property. Grantor remains solely responsible for obtaining any applicable governmental permits and approvals required for any activity or use permitted by this Conservation Easement and any activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency laws, statutes, ordinances, rules, regulations, orders and requirements.

(a) Taxes; No Liens.

Grantor shall pay before delinquency all taxes, assessments (general and special), fees, or charges of whatever description which may be legally levied on or assessed against the Property by competent authority (collectively "Taxes"), including any Taxes imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantor shall keep the Property free from any liens (other than a security interest that is expressly subordinated to this Conservation Easement, as provided in Section 15(k)), including those arising out of any obligations incurred by Grantor for any labor or materials furnished or alleged to have been furnished to or for Grantor at or for use on the Property.

(b) Hold Harmless.

Grantor shall hold harmless, protect and indemnify Grantee and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Grantee Indemnified Party" and collectively, "Grantee's Indemnified Parties") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "Claim" and, collectively, "Claims"), arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause, except that this indemnification shall be inapplicable to any Claim due solely to the negligence of Grantee or any of its employees; (ii) the obligations specified in Sections 5, 10 and 10(a); and (iii) the

existence or administration of this Conservation Easement. If any action or proceeding is brought against any of the Grantee's Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from Grantee, defend such action or proceeding by counsel reasonably acceptable to the Grantee's Indemnified Party.

Grantor shall hold harmless, protect and indemnify Third-Party Beneficiaries and their respective directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Third-Party Beneficiary Indemnified Party" and collectively, "Third-Party Beneficiary Indemnified Parties") from and against any and all Claims arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause and (ii) the existence or administration of this Conservation Easement. Provided, however, that the indemnification in this Section 10(b)(2) shall be inapplicable to a Third-Party Beneficiary Indemnified Party with respect to any Claim due solely to the negligence of that Third-Party Beneficiary Indemnified Party or any of its employees. If any action or proceeding is brought against any of the Third-Party Beneficiary Indemnified Parties by reason of any Claim to which the indemnification in this Section 10(b) (2) applies, then at the election of and upon written notice from the Third-Party Beneficiary Indemnified Party, Grantor shall defend such action or proceeding by counsel reasonably acceptable to the applicable Third-Party Beneficiary Indemnified Party or reimburse the Third-Party Beneficiary Indemnified Party for all charges incurred for services of the California Attorney General or the U.S. Department of Justice in defending the action or proceeding.

(c) Extinguishment.

If circumstances arise in the future that render the preservation of Conservation Values, or other purposes of this Conservation Easement impossible to accomplish, this Conservation Easement can only be terminated or extinguished, in whole or in part, by judicial proceedings in a court of competent jurisdiction.

(d) Condemnation.

The purposes of this Conservation Easement are presumed to be the best and most necessary public use as defined at California Code of Civil Procedure Section 1240.680 notwithstanding Code of Civil Procedure Sections 1240.690 and 1240.700, unless the use for which the Property is sought to be taken is necessary to protect life or property.

11. Transfer of Conservation Easement or the Property.

(a) Conservation Easement.

This Conservation Easement may be assigned or transferred by Grantee upon written approval of the Approving Agencies, which approval shall not be unreasonably withheld or delayed, but Grantee shall give Grantor and the Approving Agencies at least sixty (60) days prior written notice of the proposed assignment or transfer. Grantee may assign or transfer its rights under this Conservation Easement only to an entity or organization: (i) authorized to acquire and hold conservation easements pursuant to California Civil Code Section 815.3 and Government Code Section 65965 (and any successor or other provision(s) then applicable), or the laws of the United States; and (ii) otherwise reasonably acceptable to the Approving Agencies . Grantee shall require the assignee to record the assignment in the county where the Property is located. The failure of Grantee to perform any act provided in this Section shall not impair the validity of this Conservation Easement or limit its enforcement in any way. Any transfer under this Section is subject to the requirements of Section 12.

(b) The Property.

Grantor agrees to incorporate the terms of this Conservation Easement by reference in any deed or other legal instrument by which Grantor divests itself of any interest in all or any portion of the Property, including, without limitation, a leasehold interest. Grantor agrees that the deed or other legal instrument shall also incorporate by reference the MMP or the LTMP, and any amendment(s) to those documents. Grantor further agrees to give written notice to Grantee and the Approving Agencies of the intent to transfer any interest at least sixty (60) days prior to the date of such transfer. Grantee or the Approving Agencies shall have the right to prevent any transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Conservation Easement (including the exhibits and documents incorporated by reference in it). The failure of Grantor to perform any act provided in this section shall not impair the validity of this Conservation Easement or limit its enforceability in any way. Any transfer under this section is subject to the requirements of Section 12.

12. Merger.

The doctrine of merger shall not operate to extinguish this Conservation Easement if the Conservation Easement and the Property become vested in the same party. If, despite this intent, the doctrine of merger applies to extinguish the Conservation Easement then, unless Grantor, Grantee, and the Approving Agencies otherwise agree in writing, a replacement conservation easement or restrictive covenant containing the same protections embodied in this Conservation Easement shall be recorded against the Property.

13. Notices.

Any notice, demand, request, consent, approval, or other communication that Grantor or Grantee desires or is required to give to the other shall be in writing, with a copy to each of the Approving Agencies, and served personally or sent by recognized

overnight courier that guarantees next-day delivery or by first class United States mail, postage fully prepaid, addressed as follows:

To Grantor:	Executive Director & Agency Counsel Sacramento Area Flood Control Agency 1007 7th Street, 7th Floor Sacramento, CA 95814
To Grantee:	Executive Director The Natomas Basin Conservancy 2150 River Plaza Dr., Suite 460 Sacramento, CA 95833
To CDFG:	Regional Manager California Department of Fish and Game North Central Region 1701 Nimbus Road, Suite A Rancho Cordova, CA 95670
With a copy to:	Department of Fish and Game Office of General Counsel 1416 Ninth Street, 12th Floor Sacramento, CA 95814-2090 Attn: General Counsel
To USFWS:	Field Supervisor United States Fish and Wildlife Service Sacramento Field Office 2800 Cottage Way, W-2605 Sacramento, CA 95825

Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, three (3) days after deposit into the United States mail.

14. Amendment.

This Conservation Easement may be amended only by mutual written agreement of Grantor and Grantee and written approval of the Approving Agencies, which approval shall not be unreasonably withheld or delayed. Any such amendment shall be consistent with the purposes of this Conservation Easement and California law governing conservation easements, and shall not affect its perpetual duration. Any such amendment shall be recorded in the official records of the county in which the Property is

located, and Grantee shall promptly provide a conformed copy of the recorded amendment to the Grantor and the Approving Agencies.

15. Additional Provisions.

(a) Controlling Law.

The interpretation and performance of this Conservation Easement shall be governed by the laws of the United States and the State of California, disregarding the conflicts of law principles of such state.

(b) Liberal Construction.

Despite any general rule of construction to the contrary, this Conservation Easement shall be liberally construed to effect the purposes of this Conservation Easement and the policy and purpose of California Civil Code Section 815, et seq. and Government Code Section 65965. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) Severability.

If a court of competent jurisdiction voids or invalidates on its face any provision of this Conservation Easement, such action shall not affect the remainder of this Conservation Easement. If a court of competent jurisdiction voids or invalidates the application of any provision of this Conservation Easement to a person or circumstance, such action shall not affect the application of the provision to any other persons or circumstances.

(d) Entire Agreement.

This document (including its exhibits and the MMP and the LTMP incorporated by reference in this Easement) sets forth the entire agreement of the parties and the Approving Agencies with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings, or agreements of the parties relating to the Conservation Easement. No alteration or variation of this Conservation Easement shall be valid or binding unless contained in an amendment in accordance with Section 14.

(e) No Forfeiture.

Nothing contained in this Conservation Easement will result in a forfeiture or reversion of Grantor's title in any respect.

(f) Successors.

The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of, the parties and

their respective personal representatives, heirs, successors, and assigns, and shall constitute a servitude running in perpetuity with the Property.

(g) Termination of Rights and Obligations.

A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property, except that liability for acts, omissions or breaches occurring prior to transfer shall survive transfer.

(h) Captions.

The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

(i) No Hazardous Materials Liability.

Grantor represents and warrants that it has no knowledge or notice of any Hazardous Materials (defined below) or underground storage tanks existing, generated, treated, stored, used, released, disposed of, deposited or abandoned in, on, under, or from the Property, or transported to or from or affecting the Property.

Without limiting the obligations of Grantor under Section 10 (b), Grantor hereby releases and agrees to indemnify, protect and hold harmless the Grantee's Indemnified Parties (defined in Section 10(b)(1)) from and against any and all Claims (defined in Section 10(b)(1)) arising from or connected with any Hazardous Materials or underground storage tanks present, alleged to be present, released in, from or about, or otherwise associated with the Property at any time, except any Hazardous Materials placed, disposed or released by Grantee or any of its employees. This release and indemnification includes, without limitation, Claims for (A) injury to or death of any person or physical damage to any property; and (B) the violation or alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Grantee's Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from the applicable Grantee Indemnified Party, defend such action or proceeding by counsel reasonably acceptable to the Grantee Indemnified Party.

Without limiting the obligations of Grantor under Section 10 (b), Grantor hereby releases and agrees to indemnify, protect and hold harmless the Third-Party Beneficiary Indemnified Parties (defined in Section 10(b)(2)) from and against any and all Claims arising from or connected with any Hazardous Materials or underground storage tanks present, alleged to be present, released in, from or about, or otherwise associated with the Property at any time, except that this release and indemnification shall be inapplicable to a Third-Party Beneficiary Indemnified Party with respect to any

Hazardous Materials placed, disposed or released by that Third-Party Beneficiary Indemnified Party or any of its employees. This release and indemnification includes, without limitation, Claims for (A) injury to or death of any person or physical damage to any property; and (B) the violation of alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Third-Party Beneficiary Indemnified Parties by reason of any such Claim, Grantor shall, at the election or and upon written notice from the applicable Third-Party Beneficiary Indemnified Party, defend such action or proceeding by counsel reasonably acceptable to the Third-Party Beneficiary Indemnified Party for all charges incurred for services of the California Attorney General or the U.S. Department of Justice in defending the action or proceeding.

Despite any contrary provision of this Conservation Easement, the parties do not intend this Conservation Easement to be, and this Conservation Easement shall not be, construed such that it creates in or gives to Grantee or any Third-Party Beneficiaries any of the following:

(A) The obligations or liability of an "owner" or "operator," as those terms are defined and used in Environmental Laws (defined below), including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. § 9601, et seq.; hereinafter, "CERCLA"); or

(B) The obligations or liabilities of a person described in 42 U.S.C. § 9607(a)(3) or (4); or

(C) The obligations of a responsible person under any applicable Environmental Laws; or

(D) The right to investigate and remediate any Hazardous Materials associated with the Property; or

(E) Any control over Grantor's ability to investigate, remove, remediate or otherwise clean up any Hazardous Materials associated with the Property.

The term "Hazardous Materials" includes, without limitation, (a) material that is flammable, explosive or radioactive; (b) petroleum products, including by-products and fractions thereof; and (c) hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in CERCLA, the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901, et seq.; hereinafter, "RCRA"); the Hazardous Materials Transportation Act (49 U.S.C. §5101, et seq.; hereinafter, "HTA"); the Hazardous Waste Control Law (California Health & Safety

Code § 25100, et seq.; hereinafter, "HCL"); the Carpenter-Presley-Tanner Hazardous Substance Account Act (California Health & Safety Code § 25300, et seq.; hereinafter "HSA"), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable Environmental Laws now in effect or enacted after the date of this Conservation Easement.

The term "Environmental Laws" includes, without limitation, CERCLA, RCRA, HTA, HCL, HSA, and any other federal, state, local or administrative agency statute, ordinance, rule, regulation, order or requirement relating to pollution, protection of human health or safety, the environment or Hazardous Materials. Grantor represents, warrants and covenants to Grantee and Third-Party Beneficiaries that activities upon and use of the Property by Grantor, its agents, employees, invitees and contractors will comply with all Environmental Laws.

(j) Warranty.

Grantor represents and warrants that Grantor is the sole owner of the Property. Grantor also represents and warrants that, except as specifically disclosed to and approved by the Approving Agencies pursuant to the Property Assessment and Warranty signed by Grantee and attached as an exhibit to the MMP or the LTMP, there are no outstanding mortgages, liens, encumbrances or other interests in the Property (including, without limitation, mineral interests) which may conflict or are inconsistent with this Conservation Easement.

(k) Additional Interests.

Grantor shall not grant any additional easements, rights of way or other interests in the Property (other than a security interest that is expressly subordinated to this Conservation Easement), nor shall Grantor grant, transfer, abandon or relinquish (each a “Transfer”) any mineral, air, or water right or any water associated with the Property, without first obtaining the written consent of Grantee and the Approving Agencies. Such consent may be withheld if Grantee or the Approving Agencies determine(s) that the proposed interest or Transfer is inconsistent with the purposes of this Conservation Easement or will impair or interfere with the Conservation Values of the Property. This Section 15(k) shall not limit the provisions of Section 2(e) or 3(k), nor prohibit transfer of a fee or leasehold interest in the Property that is subject to this Conservation Easement and complies with Section 11. Grantor shall provide a copy of any recorded or unrecorded grant or Transfer document to the Grantee and Approving Agencies .

(l) Recording.

Grantee shall record this Conservation Easement in the Official Records of the County in which the Property is located, and may re-record it at any time as Grantee deems necessary to preserve its rights in this Conservation Easement.

(m) Third-Party Beneficiary.

Grantor and Grantee acknowledge that the CDFG and USFWS (the "Third-Party Beneficiaries") are third party beneficiaries of this Conservation Easement with the right of access to the Property and the right to enforce all of the obligations of Grantor including, but not limited to, Grantor's obligations under Section 15, and all other rights and remedies of the Grantee under this Conservation Easement.

(n) Funding.

Funding for the perpetual management, maintenance and monitoring of the Property is specified in and governed by the MMP, the LTMP, and the Master Agreement. In the event that Grantor does not provide the specified funding for the perpetual management, maintenance and monitoring of the Property, Grantee may provide written notice to Grantor and the Approving Agencies of Grantee's intent to terminate its rights and obligations under this Easement. Grantee shall provide such notice no less than thirty (30) days prior to its relinquishment of its rights and obligations under this Conservation Easement. Upon the expiration of the thirty (30) days, this Conservation Easement shall revert to another entity as specified in Section 8(f) of this Easement.

IN WITNESS WHEREOF Grantor has executed this Conservation Easement Deed the day and year first above written.

TNBC:

THE NATOMAS BASIN CONSERVANCY, a California non-profit mutual benefit corporation

By:_____

Name:_____

Title:_____

SAFCA:

SACRAMENTO AREA FLOOD CONTROL AGENCY, a Joint Exercise of Powers Agency

By:_____
Stein M Buer, Executive Director

APPROVED AS TO FORM:

By:_____
General Counsel

P:\SAFCA\Natomas Levees\NLIP Easements -- Airport, SAFCA, TNBC Lands\Conservation Easement - Novak (FML 3-12-09 clean).doc

B3 Conservation Easement Deed – Brookfield Property

No Recording Fee per Gov't Code § 6103
No Documentary Transfer Tax per R&T Code
§ 11922 - Governmental Acquisition

Recording Requested By:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
	)
When recorded, mail to:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
1007 7th Street, 7th Floor	)
Sacramento, CA 95814	)

Parcel No.: 35-080-021

Space Above Line for Recorder's Use Only

CONSERVATION EASEMENT DEED

BROOKFIELD PROPERTY

THIS CONSERVATION EASEMENT DEED ("Conservation Easement" or "Easement") is made as of the _____ day of _____, 2009, by the Sacramento Area Flood Control Agency ("SAFCA" or "Grantor"), in favor of the Natomas Basin Conservancy ("TNBC") and TNBC's successors and assigns, (collectively "Grantee"). Grantor and Grantee, and each of their respective successors and assigns are sometimes hereinafter referred to collectively as "Parties" and individually as a "Party."

RECITALS

B. Grantor is a joint powers agency authorized under the laws of the State of California to hold title to real property, to take actions to protect life, property, watercourses, watersheds, and highways from damage from flood and storm waters, and to carry out its responsibilities in a manner that provides for the optimum protection of the natural environment, especially riparian habitat and natural stream channels suitable for native plant and wildlife habitat and public recreation.

B. Grantor is the sole owner in fee simple of certain real property, commonly referred to as the Brookfield Property, which comprises a tract of land of approximately 200 acres that was created through subdivision of a larger parcel and designated APN 35-080-021 (the "Property"), located in the northern end of the Natomas Basin, near the junction of the Natomas

Cross Canal and the Pleasant Grove Creek Canal. The Property is legally described and shown in Exhibit A attached to this Conservation Easement and incorporated herein by this reference.

C. The Property possesses significant agricultural, open space, and wildlife habitat values (collectively "Conservation Values") that support a diverse assemblage of wildlife species within the Natomas Basin, including the giant garter snake, which is protected under the Federal Endangered Species Act, 16 U.S.C. section 1531 et seq. ("FESA") and the Swainson's hawk, which is protected under the California Endangered Species Act, Fish and Game Code section 2050 et seq. ("CESA"). Preservation of these Conservation Values is of great importance to Grantor, Grantee, the people of the State of California, and the people of the United States.

D. SAFCA has initiated the Natomas Levee Improvement Program ("NLIP"), which includes alterations to the levees along the Natomas Cross Canal and the Pleasant Grove Creek Canal in the vicinity of the Property. These alterations, which will be accomplished in part through the use of soil material excavated and hauled from the Property, must be permitted by the U.S. Army Corps of Engineers ("Corps") under 33 U.S.C. section 408 and by the Central Valley Flood Protection Board under Title 23 of the California Code of Regulations. Because the alterations to the levees could affect the giant garter snake and its habitat and the Swainson's hawk and its habitat, the permits will include mandatory terms and conditions identified by the U.S. Fish and Wildlife Service ("USFWS"), an agency within the United States Department of the Interior, pursuant to FESA (Biological Opinion USFWS File No. 81420-2008-F-0195) that will minimize these effects and by the California Department of Fish and Game ("CDFG") pursuant to CESA that will fully mitigate any unavoidable losses of such species and their habitat.

E. Grantee is a public benefit non-profit corporation organized under the laws of the State of California. Grantee's mission is to serve as the Plan Operator for implementing the Natomas Basin Habitat Conservation Plan ("NBHCP"). Grantee is authorized to hold this conservation easement pursuant to California Civil Code Section 815.3 and Government Code section 65965. Specifically, Grantee is (i) a tax-exempt nonprofit organization qualified under section 501(c) (3) of the Internal Revenue Code of 1986, as amended, and qualified to do business in California; (ii) a "qualified organization" as defined in section 170 (h) (3) of the Internal Revenue Code; and (iii) an organization which has as its primary and principal purpose and activity the protection and preservation of natural lands or resources in their natural, scenic, agricultural, forested, or open space condition or use.

F. SAFCA has developed a Mitigation and Monitoring Plan ("MMP") and a Long Term Management Plan ("LTMP") which contain provisions specifically applicable to the Property in order to satisfy the requirements of FESA and CESA. The MMP, attached hereto as Exhibit B and incorporated herein, identifies the habitat features that SAFCA will create and preserve in NLIP Phase 2 and the measures that SAFCA will implement to ensure that the Property is reclaimed to a suitable condition for rice production following soil excavation, hauling and grading activities. The LTMP, attached hereto as Exhibit C and incorporated herein, describes the NLIP habitat features, their linkage to the NBHCP, and the long-term

management principles, easements, management agreements, and funding mechanisms that will apply to the habitat features, including the Property. The MMP and LTMP have been approved by the Corps, USFWS, and CDFG ("Approving Agencies"). Any future modifications or amendments to the MMP or the LTMP must be approved in writing by the Approving Agencies. Final copies of the MMP and LTMP and any amendments thereto shall be kept on file at the respective offices of the Approving Agencies. If Grantor, or any successor or assign, requires an official copy of the MMP or LTMP, it should request a copy from one of the Approving Agencies at its address for notices listed herein.

I. The Parties have agreed upon the payments or other compensation to be made by Grantor to Grantee for Grantee's maintenance of this Easement. The details of Grantor's responsibilities to compensate Grantee are described in a separate Master Agreement between the Natomas Basin Conservancy and the Sacramento Area Flood Control Agency regarding the Natomas Levee Improvement Program ("Master Agreement"). The Master Agreement is incorporated by reference into this Conservation Easement as though fully set forth herein.

J. All section numbers referred to in this Conservation Easement are references to sections within this Conservation Easement, unless otherwise indicated.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and pursuant to the laws of the United States and the State of California, including California Civil Code Section 815, et seq., Grantor hereby voluntarily grants and conveys to Grantee a conservation easement in perpetuity over the Property.

1. Purposes. The purposes of this Conservation Easement are to ensure that the Property will be retained forever in rice production as contemplated in the MMP and the LTMP, and to prevent any use of the Property that will impair or interfere with the Conservation Values of the Property. Grantor intends that this Conservation Easement will confine the use of the Property to activities that are consistent with such purposes, as set forth in the MMP and LTMP, including, without limitation, those involving the preservation, restoration and enhancement of rice production and the habitat provided by land in rice production.

2. Grantee's Rights. This Easement shall entitle Grantee and/or its successors or assignees to exercise the following rights and privileges on the Property:

(a) To grow, cultivate, plant, harvest, weed, irrigate, rotate rice and other appropriate agricultural crops, consistent with best management practices for rice production within the Natomas Basin as set forth in the MMP and the LTMP.

(b) To grade, level, drain, install irrigation, install drainage or carry out other maintenance activities as set forth in the MMP and the LTMP in order to maintain the Conservation Values of the Property.

(o) To enter the Property at reasonable times, in order to monitor compliance

with and otherwise enforce the terms of this Conservation Easement, the MMP and the LTMP and to implement at Grantee's sole discretion the LTMP activities that have not been implemented, provided that Grantee shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property.

(p) To prevent any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this Conservation Easement.

(q) To require that all mineral, air and water rights as Grantee deems necessary to preserve and protect the biological resources and Conservation Values of the Property shall remain a part of and be put to beneficial use upon the Property, consistent with the purposes of this Conservation Easement.

(r) All present and future development rights appurtenant to, allocated, implied, reserved or inherent in the Property; such rights are hereby terminated and extinguished, and may not be used on or transferred to any portion of the Property, nor any other property adjacent or otherwise.

3. Prohibited Uses. Any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement is prohibited. Without limiting the generality of the foregoing, the following uses and activities by Grantor, Grantor's agents, and third parties are expressly prohibited:

(c) Recreational activities, including, but not limited to, horseback riding, biking, hunting or fishing.

(d) Non-agricultural commercial, industrial, residential, or institutional uses.

(c) Any legal or de facto division, subdivision or partitioning of the Property.

(d) Construction, reconstruction, erecting or placement of any non-agricultural building, billboard or signs, or any other non-agricultural structure or improvement of any kind.

(e) Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other materials except as provided in the MMP or the LTMP.

(f) Planting, introduction or dispersal of non-native or exotic plant or animal species.

(s) Filling, dumping, excavating, draining, dredging, mining, drilling, removing or exploring for or extracting minerals, loam, soil, sand, gravel, rock or other material on or below the surface of the Property, or granting or authorizing surface entry for any of these purposes, except as specifically provided in the MMP or LTMP.

(t) Altering the surface or general topography of the Property, including but

not limited to any alterations to habitat, building roads or trails, paving or otherwise covering the Property with concrete, asphalt or any other impervious material, except as specifically provided in the MMP or LTMP.

(u) Removing, destroying, or cutting of trees, shrubs or other vegetation, except as required by law for (i) fire breaks, (ii) maintenance of existing foot trails or roads, (iii) prevention or treatment of disease, or (iv) as specifically provided in the MMP or LTMP.

(v) Manipulating, impounding or altering any natural water course, body of water or water circulation on the Property, and any activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters, except as specifically provided in the MMP or LTMP.

(w) Without the prior written consent of Grantee, which Grantee may withhold, transferring, encumbering, selling, leasing, or otherwise separating the mineral, air or water rights for the Property; changing the place or purpose of use of the water rights; abandoning or allowing the abandonment of, by action or inaction, any water or water rights, ditch or ditch rights, spring rights, reservoir or storage rights, wells, ground water rights, or other rights in and to the use of water historically used on or otherwise appurtenant to the Property, including but not limited to: (i) riparian water rights; (ii) appropriative water rights; (iii) rights to waters which are secured under contract with any irrigation or water district, to the extent such waters are customarily applied to the Property; and (iv) any water from wells that are in existence or may be constructed in the future on the Property.

(x) Engaging in any use or activity that may violate, or may fail to comply with, relevant federal, state, or local laws, regulations, or policies applicable to Grantor, the Property, or the use or activity in question.

4. Grantee's Duties.

(y) To ensure that the purposes of this Conservation Easement as described in Section 1 are being accomplished, Grantee and its successors and assigns shall:

Perform, at a minimum on an annual basis, compliance monitoring inspections of the Property consistent with the LTMP; and

Prepare reports on the results of the compliance monitoring inspections, and provide these reports to the Approving Agencies on an annual basis.

(b) In the event that the Grantee's interest in this easement is held by, reverts to, or is transferred to the State of California, Section 4(a) shall not apply.

5. Grantor's Duties. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property or that are otherwise inconsistent with this Conservation Easement. In addition, Grantor shall undertake all necessary actions to perfect and defend Grantee's rights

under Section 2 of this Conservation Easement, and to observe and carry out the obligations of Grantor under the MMP and the LTMP.

6. Grantor's Uses and Notification Obligations. The prohibitions contained in this Easement are not intended to preclude Grantor from its intended use of the Property for borrow material for the NLIP, consistent with the MMP. Upon completion of these borrow activities and reclamation of the Property for rice production, Grantor shall not undertake any further modifications to the flood control system or any other physical improvements to the Property that fall within the Prohibited Uses identified in Paragraph 3 above or that are inconsistent with the purposes of this Easement unless Grantor provides notice to Grantee and the Approving Agencies with a description of the proposed action, including an explanation of the necessity for the action, supported by data or relevant engineering information. Grantor shall provide this information to Grantee not less than sixty (60) days prior to the date Grantor intends to initiate this action and shall indicate whether the proposed action will require any additional compliance with FESA or CESA.

(a) Grantee and the Approving Agencies shall independently review this information and, within thirty (30) days of the receipt of Grantor's description, identify in writing any potential conflict between the proposed action and the Prohibited Uses, or the Conservation Values of this Easement, or the requirements of FESA or CESA. If no written comments are received within this 30-day period, the proposed action shall be deemed acceptable.

(b) Grantor shall make a reasonable effort to modify the proposed action so as to avoid any conflict(s) identified by Grantee or the Approving Agencies. Grantor shall report back to Grantee within fifteen (15) days of receipt of any written comment regarding Grantor's plan to avoid such conflict(s).

(c) In the absence of any conflict with respect to the described action or upon resolution of any such conflict, Grantor shall proceed with its proposed action, provided that it shall not substantially alter the action without re-initiating the review process outlined in the immediately preceding subsections of this Paragraph. However, the mandatory procedures outlined in the immediately preceding subsections shall not apply in those instances when Grantor in good faith determines that due to an Emergency, it cannot comply with such procedures. In such Emergencies, Grantor will make a reasonable effort to notify Grantee and the Approving Agencies prior to initiating the proposed action. Fax or phone notification, with written follow-up, will be deemed adequate.

7. Reserved Rights.

Grantor reserves to itself, and to its personal representatives, heirs, successors, and assigns, all rights accruing from Grantor's ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited or limited by, and are consistent with the purposes of, this Conservation Easement.

8. Grantee's Remedies.

If Grantee determines that a violation of this Conservation Easement has occurred or is threatened, Grantee shall give written notice to Grantor of such violation and demand in writing the cure of such violation ("Notice of Violation"). If Grantor fails to cure the violation within thirty (30) days after receipt of a Notice of Violation, or if the cure reasonably requires more than thirty (30) days to complete and Grantor fails to begin the cure within the thirty (30)-day period or fails to continue diligently to complete the cure, Grantee may bring an action at law or in equity in a court of competent jurisdiction for any or all of the following: to recover any damages to which Grantee may be entitled for violation of the terms of this Conservation Easement or for any injury to the Conservation Values of the Property; to enjoin the violation, ex parte as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies; to pursue any other legal or equitable relief, including but not limited to, the restoration of the Property to the condition in which it existed prior to any violation or injury; or to otherwise enforce this Conservation Easement. Without limiting the liability of Grantor, Grantee may apply any damages recovered to the cost of undertaking any corrective action on the Property.

If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate injury to the Conservation Values of the Property, Grantee may pursue its remedies under this Conservation Easement without prior notice to Grantor or without waiting for the period provided for cure to expire. Grantee's rights under this section apply equally to actual or threatened violations of this Conservation Easement.

Grantor agrees that Grantee's remedies at law for any violation of this Conservation Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this section, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of this Conservation Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity, including but not limited to the remedies set forth in California Civil Code Section 815, et seq. The failure of Grantee to discover a violation or to take immediate legal action shall not bar Grantee from taking such action at a later time.

(z) Costs of Enforcement.

All costs incurred by Grantee, where Grantee is the prevailing party, in enforcing the terms of this Conservation Easement against Grantor, including, but not limited to, costs of suit and attorneys' and experts' fees, and any costs of restoration necessitated by negligence or breach of this Conservation Easement, shall be borne by Grantor.

(aa) Grantee's Discretion.

Enforcement of the terms of this Conservation Easement by Grantee shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Conservation Easement in the event of any breach of any term of this Conservation Easement shall not be deemed or construed to be a waiver of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any rights of Grantee under this

Conservation Easement. No delay or omission by Grantee in the exercise of any right or remedy shall impair such right or remedy or be construed as a waiver.

(bb) Acts Beyond Grantor's Control.

Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from (i) any natural cause beyond Grantor's control, including, without limitation, fire not caused by Grantor, flood, storm, and earth movement, or any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes; or (ii) acts by Grantee or its employees.

(cc) Enforcement; Standing.

All rights and remedies conveyed to Grantee under this Conservation Easement shall extend to and are enforceable by the Third-Party Beneficiaries (as defined in Section 15(m)). These enforcement rights are in addition to, and do not limit, the rights of enforcement under the MMP or the LTMP. If at any time in the future Grantor uses, allows the use, or threatens to use or allow use of, the Property for any purpose that is inconsistent with or in violation of this Conservation Easement then, despite the provisions of California Civil Code Section 815.7, the California Attorney General and the Third-Party Beneficiaries each has standing as an interested party in any proceeding affecting this Conservation Easement.

(dd) Notice of Conflict.

If Grantor receives a Notice of Violation from Grantee or a Third-Party Beneficiary with which it is impossible for Grantor to comply consistent with any prior uncured Notice(s) of Violation, Grantor shall give written notice of the conflict (hereinafter "Notice of Conflict") to the Grantee and Third-Party Beneficiaries. In order to be valid, a Notice of Conflict shall be given within fifteen (15) days of the date Grantor receives a conflicting Notice of Violation, shall include copies of the conflicting Notices of Violation, and shall describe the conflict with specificity, including how the conflict makes compliance with the uncured Notice(s) of Violation impossible. Upon issuing a valid Notice of Conflict, Grantor shall not be required to comply with the conflicting Notices of Violation until such time as the entity or entities issuing said conflicting Notices of Violation issue(s) revised Notice(s) of Violation that resolve the conflict. Upon receipt of a revised Notice of Violation, Grantor shall comply with such notice within the time period(s) described in the first grammatical paragraph of this Section. The failure of Grantor to issue a valid Notice of Conflict within fifteen (15) days of receipt of a conflicting Notice of Violation shall constitute a waiver of Grantor's ability to claim a conflict.

(ee) Reversion.

If the Approving Agencies determine that Grantee is not holding, monitoring or managing this Conservation Easement for conservation purposes in the manner specified in this Conservation Easement, the MMP, or the LTMP, or if Grantor does not provide funding for the perpetual management, maintenance and monitoring of the Property, as specified in and governed by the MMP, LTMP, and Master Agreement, then, pursuant to California Government Code Section 65965(c), this Conservation Easement shall revert to the State of

California, or to another public agency or nonprofit organization qualified pursuant to Civil Code Section 815.3 and Government Code Section 65965 (and any successor or other provision(s) then applicable) and approved by the Approving Agencies.

9. Access.

This Conservation Easement does not convey a general right of access to the public.

10. Costs and Liabilities.

Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property. Grantor agrees that neither Grantee nor Third-Party Beneficiaries shall have any duty or responsibility for the operation, upkeep or maintenance of the Property, the monitoring of hazardous conditions on it, or the protection of Grantor, the public or any third parties from risks relating to conditions on the Property. Grantor remains solely responsible for obtaining any applicable governmental permits and approvals required for any activity or use permitted by this Conservation Easement and any activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency laws, statutes, ordinances, rules, regulations, orders and requirements.

(ff) Taxes; No Liens.

Grantor shall pay before delinquency any taxes, assessments (general and special), fees, or charges of whatever description which may be legally levied on or assessed against the Property by competent authority (collectively "Taxes"), including any Taxes imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantor shall keep the Property free from any liens (other than a security interest that is expressly subordinated to this Conservation Easement, as provided in Section 15(k)), including those arising out of any obligations incurred by Grantor for any labor or materials furnished or alleged to have been furnished to or for Grantor at or for use on the Property.

(gg) Hold Harmless.

Grantor shall hold harmless, protect and indemnify Grantee and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Grantee Indemnified Party" and collectively, "Grantee's Indemnified Parties") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "Claim" and, collectively, "Claims"), arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause, except that this indemnification shall be inapplicable to any Claim due solely to the negligence of Grantee or any of its employees; (ii) the obligations specified in Sections 5, 10 and 10(a); and (iii) the existence or administration of this Conservation Easement. If any action or proceeding is brought against any of the Grantee's Indemnified Parties by reason of any such Claim, Grantor

shall, at the election of and upon written notice from Grantee, defend such action or proceeding by counsel reasonably acceptable to the Grantee's Indemnified Party.

Grantor shall hold harmless, protect and indemnify Third-Party Beneficiaries and their respective directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Third-Party Beneficiary Indemnified Party" and collectively, "Third-Party Beneficiary Indemnified Parties") from and against any and all Claims arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause and (ii) the existence or administration of this Conservation Easement. Provided, however, that the indemnification in this Section 10 (b) (2) shall be inapplicable to a Third-Party Beneficiary Indemnified Party with respect to any Claim due solely to the negligence of that Third-Party Beneficiary Indemnified Party or any of its employees. If any action or proceeding is brought against any of the Third-Party Beneficiary Indemnified Parties by reason of any Claim to which the indemnification in this Section 10 (b) (2) applies, then at the election of and upon written notice from the Third-Party Beneficiary Indemnified Party, Grantor shall defend such action or proceeding by counsel reasonably acceptable to the applicable Third-Party Beneficiary Indemnified Party or reimburse the Third-Party Beneficiary Indemnified Party for all charges incurred for services of the California Attorney General or the U.S. Department of Justice in defending the action or proceeding.

(hh) Extinguishment.

If circumstances arise in the future that render the preservation of Conservation Values, including wetland functions and values, or other purposes of this Conservation Easement impossible to accomplish, this Conservation Easement can only be terminated or extinguished, in whole or in part, by judicial proceedings in a court of competent jurisdiction.

(ii) Condemnation.

The purposes of this Conservation Easement are presumed to be the best and most necessary public use as defined at California Code of Civil Procedure Section 1240.680 notwithstanding Code of Civil Procedure Sections 1240.690 and 1240.700, unless the use for which the Property is sought to be taken is necessary to protect life or property.

11. Transfer of Conservation Easement or the Property.

(a) Conservation Easement.

This Conservation Easement may be assigned or transferred by Grantee upon written approval of the Approving Agencies, which approval shall not be unreasonably withheld or delayed, but Grantee shall give Grantor and the Approving Agencies at least sixty (60) days prior written notice of the proposed assignment or transfer. Grantee may assign or transfer its rights under this Conservation Easement only to an entity or organization: (i) authorized to acquire and hold conservation easements pursuant to California Civil Code Section 815.3 and Government Code Section 65965 (and any successor or other provision(s) then

applicable), or the laws of the United States; and (ii) otherwise reasonably acceptable to the Approving Agencies. Grantee shall require the assignee to record the assignment in the county where the Property is located. The failure of Grantee to perform any act provided in this Section shall not impair the validity of this Conservation Easement or limit its enforcement in any way. Any transfer under this Section is subject to the requirements of Section 12.

(b) The Property.

Grantor agrees to incorporate the terms of this Conservation Easement by reference in any deed or other legal instrument by which Grantor divests itself of any interest in all or any portion of the Property, including, without limitation, a leasehold interest. Grantor agrees that the deed or other legal instrument shall also incorporate by reference the MMP or the LTMP, and any amendment(s) to those documents. Grantor further agrees to give written notice to Grantee and the Approving Agencies of the intent to transfer any interest at least sixty (60) days prior to the date of such transfer. Grantee or the Approving Agencies shall have the right to prevent any transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Conservation Easement (including the exhibits and documents incorporated by reference in it). The failure of Grantor to perform any act provided in this Section shall not impair the validity of this Conservation Easement or limit its enforceability in any way. Any transfer under this Section is subject to the requirements of Section 12.

12. Merger.

The doctrine of merger shall not operate to extinguish this Conservation Easement if the Conservation Easement and the Property become vested in the same party. If, despite this intent, the doctrine of merger applies to extinguish the Conservation Easement then, unless Grantor, Grantee, and the Approving Agencies otherwise agree in writing, a replacement conservation easement or restrictive covenant containing the same protections embodied in this Conservation Easement shall be recorded against the Property.

13. Notices.

Any notice, demand, request, consent, approval, or other communication that Grantor or Grantee desires or is required to give to the other shall be in writing, with a copy to each of the Approving Agencies, and served personally or sent by recognized overnight courier that guarantees next-day delivery or by first class United States mail, postage fully prepaid, addressed as follows:

To Grantor: Executive Director & Agency Counsel
Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor
Sacramento, CA 95814

To Grantee: Executive Director
The Natomas Basin Conservancy
2150 River Plaza Dr., Suite 460
Sacramento, CA 95833

To CDFG: Regional Manager
California Department of Fish and Game
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

With a copy to: Department of Fish and Game
Office of General Counsel
1416 Ninth Street, 12th Floor
Sacramento, CA 95814-2090
Attn: General Counsel

To USFWS: Field Supervisor
United States Fish and Wildlife Service
Sacramento Field Office
2800 Cottage Way, W-2605
Sacramento, CA 95825

Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, three (3) days after deposit into the United States mail.

14. Amendment.

This Conservation Easement may be amended only by mutual written agreement of Grantor and Grantee and written approval of the Approving Agencies, which approval shall not be unreasonably withheld or delayed. Any such amendment shall be consistent with the purposes of this Conservation Easement and California law governing conservation easements, and shall not affect its perpetual duration. Any such amendment shall be recorded in the official records of the county in which the Property is located, and Grantee shall promptly provide a conformed copy of the recorded amendment to the Grantor and the Approving Agencies.

15. Additional Provisions.

(jj) Controlling Law.

The interpretation and performance of this Conservation Easement shall be governed by the laws of the United States and the State of California, disregarding the conflicts of law principles of such state.

(kk) Liberal Construction.

Despite any general rule of construction to the contrary, this Conservation Easement shall be liberally construed to effect the purposes of this Conservation Easement and the policy and purpose of California Civil Code Section 815, et seq. and Government Code Section 65965. If any provision in this instrument is found to be ambiguous, an interpretation

consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(ll) Severability.

If a court of competent jurisdiction voids or invalidates on its face any provision of this Conservation Easement, such action shall not affect the remainder of this Conservation Easement. If a court of competent jurisdiction voids or invalidates the application of any provision of this Conservation Easement to a person or circumstance, such action shall not affect the application of the provision to any other persons or circumstances.

(mm) Entire Agreement.

This document (including its exhibits and the MMP and the LTMP incorporated by reference in this Easement) sets forth the entire agreement of the parties and the Approving Agencies with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings, or agreements of the parties relating to the Conservation Easement. No alteration or variation of this Conservation Easement shall be valid or binding unless contained in an amendment in accordance with Section 14.

(nn) No Forfeiture.

Nothing contained in this Conservation Easement will result in a forfeiture or reversion of Grantor's title in any respect.

(oo) Successors.

The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of, the parties and their respective personal representatives, heirs, successors, and assigns, and shall constitute a servitude running in perpetuity with the Property.

(pp) Termination of Rights and Obligations.

A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property, except that liability for acts, omissions or breaches occurring prior to transfer shall survive transfer.

(qq) Captions.

The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

(rr) No Hazardous Materials Liability.

Grantor represents and warrants that it has no knowledge or notice of any Hazardous Materials (defined below) or underground storage tanks existing, generated, treated,

stored, used, released, disposed of, deposited or abandoned in, on, under, or from the Property, or transported to or from or affecting the Property.

Without limiting the obligations of Grantor under Section 10 (b), Grantor hereby releases and agrees to indemnify, protect and hold harmless the Grantee's Indemnified Parties (defined in Section 10 (b) (1)) from and against any and all Claims (defined in Section 10 (b)(1)) arising from or connected with any Hazardous Materials or underground storage tanks present, alleged to be present, released in, from or about, or otherwise associated with the Property at any time, except any Hazardous Materials placed, disposed or released by Grantee or any of its employees. This release and indemnification includes, without limitation, Claims for (A) injury to or death of any person or physical damage to any property; and (B) the violation or alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Grantee's Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from the applicable Grantee Indemnified Party, defend such action or proceeding by counsel reasonably acceptable to the Grantee Indemnified Party.

Without limiting the obligations of Grantor under Section 10 (b), Grantor hereby releases and agrees to indemnify, protect and hold harmless the Third-Party Beneficiary Indemnified Parties (defined in Section 10 (b)(2)) from and against any and all Claims arising from or connected with any Hazardous Materials or underground storage tanks present, alleged to be present, released in, from or about, or otherwise associated with the Property at any time, except that this release and indemnification shall be inapplicable to a Third-Party Beneficiary Indemnified Party with respect to any Hazardous Materials placed, disposed or released by that Third-Party Beneficiary Indemnified Party or any of its employees. This release and indemnification includes, without limitation, Claims for (A) injury to or death of any person or physical damage to any property; and (B) the violation of alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Third-Party Beneficiary Indemnified Parties by reason of any such Claim, Grantor shall, at the election or and upon written notice from the applicable Third-Party Beneficiary Indemnified Party, defend such action or proceeding by counsel reasonably acceptable to the Third-Party Beneficiary Indemnified Party for all charges incurred for services of the California Attorney General or the U.S. Department of Justice in defending the action or proceeding.

Despite any contrary provision of this Conservation Easement, the parties do not intend this Conservation Easement to be, and this Conservation Easement shall not be, construed such that it creates in or gives to Grantee or any Third-Party Beneficiaries any of the following:

(A) The obligations or liability of an "owner" or "operator," as those terms are defined and used in Environmental Laws (defined below), including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. § 9601, et seq.; hereinafter, "CERCLA"); or

(B) The obligations or liabilities of a person described in 42

U.S.C. § 9607(a)(3) or (4); or

(C) The obligations of a responsible person under any applicable Environmental Laws; or

(D) The right to investigate and remediate any Hazardous Materials associated with the Property; or

(E) Any control over Grantor's ability to investigate, remove, remediate or otherwise clean up any Hazardous Materials associated with the Property.

The term "Hazardous Materials" includes, without limitation, (a) material that is flammable, explosive or radioactive; (b) petroleum products, including by-products and fractions thereof; and (c) hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in CERCLA, the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901, et seq.; hereinafter, "RCRA"); the Hazardous Materials Transportation Act (49 U.S.C. §5101, et seq.; hereinafter, "HTA"); the Hazardous Waste Control Law (California Health & Safety Code § 25100, et seq.; hereinafter, "HCL"); the Carpenter-Presley-Tanner Hazardous Substance Account Act (California Health & Safety Code § 25300, et seq.; hereinafter "HSA"), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable Environmental Laws now in effect or enacted after the date of this Conservation Easement.

The term "Environmental Laws" includes, without limitation, CERCLA, RCRA, HTA, HCL, HSA, and any other federal, state, local or administrative agency statute, ordinance, rule, regulation, order or requirement relating to pollution, protection of human health or safety, the environment or Hazardous Materials. Grantor represents, warrants and covenants to Grantee and Third-Party Beneficiaries that activities upon and use of the Property by Grantor, its agents, employees, invitees and contractors will comply with all Environmental Laws.

(ss) Warranty.

Grantor represents and warrants that Grantor is the sole owner of the Property. Grantor also represents and warrants that, except as specifically disclosed to and approved by the Approving Agencies pursuant to the Property Assessment and Warranty signed by Grantee and attached as an exhibit to the MMP or the LTMP, there are no outstanding mortgages, liens, encumbrances or other interests in the Property (including, without limitation, mineral interests) which may conflict or are inconsistent with this Conservation Easement.

(tt) Additional Interests.

Grantor shall not grant any additional easements, rights of way or other interests in the Property (other than a security interest that is expressly subordinated to this Conservation Easement), nor shall Grantor grant, transfer, abandon or relinquish (each a "Transfer") any mineral, air, or water right or any water associated with the Property, without first obtaining the written consent of Grantee and the Approving Agencies. Such consent may be withheld if Grantee or the Approving Agencies determine(s) that the proposed interest or

Transfer is inconsistent with the purposes of this Conservation Easement or will impair or interfere with the Conservation Values of the Property. This Section 15(k) shall not limit the provisions of Section 2(e) or 3(k), nor prohibit transfer of a fee or leasehold interest in the Property that is subject to this Conservation Easement and complies with Section 11. Grantor shall provide a copy of any recorded or unrecorded grant or Transfer document to the Grantee and Approving Agencies .

(uu) Recording.

Grantee shall record this Conservation Easement in the Official Records of the County in which the Property is located, and may re-record it at any time as Grantee deems necessary to preserve its rights in this Conservation Easement.

(vv) Third-Party Beneficiary.

Grantor and Grantee acknowledge that the CDFG and USFWS (the "Third-Party Beneficiaries") are third party beneficiaries of this Conservation Easement with the right of access to the Property and the right to enforce all of the obligations of Grantor including, but not limited to, Grantor's obligations under Section 15, and all other rights and remedies of the Grantee under this Conservation Easement.

(ww) Funding.

Funding for the perpetual management, maintenance and monitoring of the Property is specified in and governed by the MMP, the LTMP, and the Master Agreement. In the event that Grantor does not provide the specified funding for the perpetual management, maintenance and monitoring of the Property, Grantee may provide written notice to Grantor and the Approving Agencies of Grantee's intent to terminate its rights and obligations under this Easement. Grantee shall provide such notice no less than thirty (30) days prior to its relinquishment of its rights and obligations under this Conservation Easement. Upon the expiration of the thirty (30) days, this Conservation Easement shall revert to another entity as specified in Section 8(f) of this Easement.

IN WITNESS WHEREOF Grantor has executed this Conservation Easement Deed the day and year first above written.

TNBC:

THE NATOMAS BASIN CONSERVANCY, a California non-profit mutual benefit corporation

By:_____

Name:_____

Title:_____

SAFCA:

SACRAMENTO AREA FLOOD CONTROL AGENCY, a Joint Exercise of Powers Agency

By:_____
Stein M Buer, Executive Director

APPROVED AS TO FORM:

By:_____
General Counsel

P:\SAFCA\Natomas Levees\NLIP Easements -- Airport, SAFCA, TNBC Lands\Conservation Easement - Brookfield (FML 3-11-09 clean).doc

B4 Conservation Easement Deed – Upper Woodlands

No Recording Fee per Gov't Code § 6103
No Documentary Transfer Tax per R&T Code
§ 11922 - Governmental Acquisition

Recording Requested By:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
	)
When recorded, mail to:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
1007 7th Street, 7th Floor	)
Sacramento, CA 95814	)

Parcel No.: 35-080-021

Space Above Line for Recorder's Use Only

CONSERVATION EASEMENT DEED

UPPER WOODLANDS

THIS CONSERVATION EASEMENT DEED ("Conservation Easement" or "Easement") is made as of the _____ day of _____, 2008, by the Sacramento Area Flood Control Agency ("SAFCA" or "Grantor"), in favor of the Natomas Basin Conservancy ("TNBC") and TNBC's successors and assigns, (collectively "Grantee"). Grantor and Grantee, and each of their respective successors and assigns are sometimes hereinafter referred to collectively as "Parties" and individually as a "Party."

RECITALS

C. Grantor is a joint powers agency authorized under the laws of the State of California to hold title to real property, to take actions to protect life, property, watercourses, watersheds, and highways from damage from flood and storm waters, and to carry out its responsibilities in a manner that provides for the optimum protection of the natural environment, especially riparian habitat and natural stream channels suitable for native plant and wildlife habitat and public recreation.

B. Grantor is the sole owner in fee simple of ____ parcels of land totaling __ acres designated Sutter County APN's: ___ ___ ___ ___ (the "Property"), located in the

northern portion of the Natomas Basin, near the junction of Sankey Road and the Sacramento River east levee. The Property is legally described and shown in Exhibit A attached to this Conservation Easement and incorporated herein by this reference.

C. The Property possesses significant agricultural, open space, and wildlife habitat values (collectively "Conservation Values") that support a diverse assemblage of wildlife species within the Natomas Basin, including the giant garter snake, which is protected under the Federal Endangered Species Act, 16 U.S. section 1531 et seq. ("FESA") and the Swainson's hawk, which is protected under the California Endangered Species Act, Fish and Game Code section 2050 et seq. ("CESA"). Preservation of these Conservation Values is of great importance to Grantor, Grantee, the people of the State of California, and the people of the United States.

D. SAFCA has initiated the Natomas Levee Improvement Program ("NLIP"), which includes alterations to the levee along the east bank of the Sacramento River in the vicinity of the Property. These alterations must be permitted by the U.S. Army Corps of Engineers ("Corps") under 33 U.S.C. section 408 and by the Central Valley Flood Protection Board under Title 23 of the California Code of Regulations. Because the alterations could affect the giant garter snake and its habitat and the Swainson's hawk and its habitat, the permits will include mandatory terms and conditions identified by the U.S. Fish and Wildlife Service ("USFWS"), an agency within the United States Department of the Interior, pursuant to FESA (Biological Opinion USFWS File No. 81420-2008-F-0195) that will minimize these effects and by the California Department of Fish and Game ("CDFG") pursuant to CESA that will fully mitigate any unavoidable losses of such species and their habitat.

E. Grantee is a public benefit non-profit corporation organized under the laws of the State of California. Grantee's mission is to serve as the Plan Operator for implementing the Natomas Basin Habitat Conservation Plan ("NBHCP"). Grantee is authorized to hold this conservation easement pursuant to California Civil Code section 815.3 and Government Code section 65965. Specifically, Grantee is (i) a tax-exempt nonprofit organization qualified under section 501(c) (3) of the Internal Revenue Code of 1986, as amended, and qualified to do business in California; (ii) a "qualified organization" as defined in section 170 (h) (3) of the Internal Revenue Code; and (iii) an organization which has as its primary and principal purpose and activity the protection and preservation of natural lands or resources in their natural, scenic, agricultural, forested, or open space condition or use.

F. SAFCA has developed a Mitigation and Monitoring Plan ("MMP") and a Long Term Management Plan ("LTMP") which contain provisions specifically applicable to the Property in order to satisfy the requirements of FESA and CESA. The MMP, attached hereto as Exhibit B and incorporated herein, identifies the habitat features that SAFCA will create and preserve in NLIP Phase 2 and the measures that SAFCA will

implement to preserve existing woodlands and to plant and establish new woodlands on the Property. The LTMP, attached hereto as Exhibit C and incorporated herein, describes the NLIP habitat features, their linkage to the NBHCP, and the long-term management principles, easements, management agreements, and funding mechanisms that will apply to the habitat features, including the Property. The MMP and LTMP have been approved by the Corps, USFWS, and CDFG (collectively "Approving Agencies"). Any future modifications or amendments to the MMP or the LTMP must be approved in writing by the Approving Agencies. Final copies of the MMP and LTMP and any amendments thereto shall be kept on file at the respective offices of the Approving Agencies. If Grantor, or any successor or assign, requires an official copy of the MMP or LTMP, it should request a copy from one of the Approving Agencies at its address for notices listed herein.

G. The Parties have agreed upon the payments or other compensation to be made by Grantor to Grantee for Grantee's maintenance of this Easement. The details of Grantor's responsibilities to compensate Grantee are described in a separate Master Agreement between the Natomas Basin Conservancy and the Sacramento Area Flood Control Agency regarding the Natomas Levee Improvement Program ("Master Agreement"). The Master Agreement is incorporated by reference into this Conservation Easement as though fully set forth herein.

H. All section numbers referred to in this Conservation Easement are references to sections within this Conservation Easement, unless otherwise indicated.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and pursuant to the laws of the United States and the State of California, including California Civil Code Section 815, et seq., Grantor hereby voluntarily grants and conveys to Grantee a conservation easement in perpetuity over the Property.

1. Purposes. The purposes of this Conservation Easement are to ensure that the Property will be retained forever in woodlands as contemplated in the MMP and the LTMP, and to prevent any use of the Property that will impair or interfere with the Conservation Values of the Property. Grantor intends that this Conservation Easement will confine the use of the Property to activities that are consistent with such purposes, as set forth in the MMP and LTMP, including, without limitation, those involving the preservation of existing woodlands and the establishment of new woodlands and the habitat provided by woodlands.

2. Grantee's Rights. This Easement shall entitle Grantee and/or its successors or assignees to exercise the following rights and privileges on the Property:

(xx) To preserve and protect the Conservation Values of the Property.

(b) To enter the Property at reasonable times, in order to monitor compliance with and otherwise enforce the terms of this Conservation Easement, the MMP and the LTMP and to implement at Grantee's sole discretion the LTMP activities that have not been implemented, provided that Grantee shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property.

(c) To prevent any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this Conservation Easement.

(d) To require that all mineral, air and water rights as Grantee deems necessary to preserve and protect the biological resources and Conservation Values of the Property shall remain a part of and be put to beneficial use upon the Property, consistent with the purposes of this Conservation Easement.

(e) All present and future development rights appurtenant to, allocated, implied, reserved or inherent in the Property; such rights are hereby terminated and extinguished, and may not be used on or transferred to any portion of the Property, nor any other property adjacent or otherwise.

3. Prohibited Uses. Any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement is prohibited. Without limiting the generality of the foregoing, the following uses and activities by Grantor, Grantor's agents, and third parties are expressly prohibited:

(e) Recreational activities, including, but not limited to, horseback riding, biking, hunting or fishing.

(f) Non-agricultural commercial, industrial, residential, or institutional uses.

(c) Any legal or de facto division, subdivision or partitioning of the Property.

(d) Construction, reconstruction, erecting or placement of any non-agricultural building, billboard or signs, or any other non-agricultural structure or improvement of any kind.

(e) Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-

solids or any other materials except as specifically provided in the MMP or the LTMP.

(f) Planting, introduction or dispersal of non-native or exotic plant or animal species.

(g) Filling, dumping, excavating, draining, dredging, mining, drilling, removing or exploring for or extracting minerals, loam, soil, sand, gravel, rock or other material on or below the surface of the Property, or granting or authorizing surface entry for any of these purposes, except as specifically provided in the MMP or LTMP.

(h) Altering the surface or general topography of the Property, including but not limited to any alterations to habitat, building roads or trails, paving or otherwise covering the Property with concrete, asphalt or any other impervious material except as specifically provided in the MMP or LTMP.

(i) Removing, destroying, or cutting of trees, shrubs or other vegetation, except as required by law for (i) fire breaks, (ii) maintenance of existing foot trails or roads, (iii) prevention or treatment of disease, or (iv) as specifically provided in the MMP or LTMP.

(j) Manipulating, impounding or altering any natural water course, body of water or water circulation on the Property, and any activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters, except as specifically provided in the MMP or LTMP.

(k) Without the prior written consent of Grantee, which Grantee may withhold, transferring, encumbering, selling, leasing, or otherwise separating the mineral, air or water rights for the Property; changing the place or purpose of use of the water rights; abandoning or allowing the abandonment of, by action or inaction, any water or water rights, ditch or ditch rights, spring rights, reservoir or storage rights, wells, ground water rights, or other rights in and to the use of water historically used on or otherwise appurtenant to the Property, including but not limited to: (i) riparian water rights; (ii) appropriative water rights; (iii) rights to waters which are secured under contract with any irrigation or water district, to the extent such waters are customarily applied to the Property; and (iv) any water from wells that are in existence or may be constructed in the future on the Property.

(l) Engaging in any use or activity that may violate, or may fail to comply with, relevant federal, state, or local laws, regulations, or policies applicable to Grantor, the Property, or the use or activity in question.

4. <u>Grantee's Duties.</u>

(m) To ensure that the purposes of this Conservation Easement as described in Section 1 are being accomplished, Grantee and its successors and assigns shall:

Perform, at a minimum on an annual basis, compliance monitoring inspections of the Property consistent with the LTMP; and

Prepare reports on the results of the compliance monitoring inspections, and provide these reports to the Approving Agencies on an annual basis.

(n) In the event that the Grantee's interest in this easement is held by, reverts to, or is transferred to the State of California, Section 4(a) shall not apply.

5. Grantor's Duties. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property or that are otherwise inconsistent with this Conservation Easement. In addition, Grantor shall undertake all necessary actions to perfect and defend Grantee's rights under Section 2 of this Conservation Easement, and to observe and carry out the obligations of Grantor under the MMP and the LTMP.

6. Grantor's Uses and Notification Obligations. Grantor shall not undertake any modifications to the flood control system protecting the Property or any other physical improvements to the Property that fall within the Prohibited Uses identified in Paragraph 3 above or that are inconsistent with the purposes of this Easement unless Grantor provides notice to Grantee and the Approving Agencies with a description of the proposed action including an explanation of the necessity for the action, supported by data or relevant engineering information. Grantor shall provide this information to Grantee not less than sixty (60) days prior to the date Grantor intends to initiate this action and shall indicate whether the proposed action will require any additional compliance with FESA or CESA.

(a) Grantee and the Approving Agencies shall independently review this information and, within thirty (30) days of the receipt of Grantor's description, identify in writing any potential conflict between the proposed action and the Prohibited Uses, or the Conservation Values of this Easement, or the requirements of FESA or CESA. If no written comments are received within this 30-day period, the proposed action shall be deemed acceptable.

(b) Grantor shall make a reasonable effort to modify the proposed action so as to avoid any conflict(s) identified by Grantee or the Approving Agencies. Grantor shall report back to Grantee within fifteen (15) days of receipt of any written comment regarding Grantor's plan to avoid such conflict(s).

(c) In the absence of any conflict with respect to the described action or upon resolution of any such conflict, Grantor shall proceed with its proposed action, provided that it shall not substantially alter the action without re-initiating the review process outlined in the immediately preceding subsections of this Paragraph. However, the mandatory procedures outlined in the immediately preceding subsections shall not apply in those instances when Grantor in good faith determines that due to an Emergency, it cannot comply with such procedures. In such Emergencies, Grantor will make a reasonable effort to notify Grantee and the Approving Agencies prior to initiating any such activities. Fax or phone notification, with written follow-up, will be deemed adequate.

16. Reserved Rights.

Grantor reserves to itself, and to its personal representatives, heirs, successors, and assigns, all rights accruing from Grantor's ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited or limited by, and are consistent with the purposes of, this Conservation Easement.

17. Grantee's Remedies.

If Grantee determines that a violation of this Conservation Easement has occurred or is threatened, Grantee shall give written notice to Grantor of such violation and demand in writing the cure of such violation ("Notice of Violation"). If Grantor fails to cure the violation within thirty (30) days after receipt of a Notice of Violation, or if the cure reasonably requires more than thirty (30) days to complete and Grantor fails to begin the cure within the thirty (30)-day period or fails to continue diligently to complete the cure, Grantee may bring an action at law or in equity in a court of competent jurisdiction for any or all of the following: to recover any damages to which Grantee may be entitled for violation of the terms of this Conservation Easement or for any injury to the Conservation Values of the Property; to enjoin the violation, ex parte as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies; to pursue any other legal or equitable relief, including but not limited to, the restoration of the Property to the condition in which it existed prior to any violation or injury; or to otherwise enforce this Conservation Easement. Without limiting the liability of Grantor, Grantee may apply any damages recovered to the cost of undertaking any corrective action on the Property.

If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate injury to the Conservation Values of the Property, Grantee may pursue its remedies under this Conservation Easement without prior notice to Grantor or without waiting for the period provided for cure to expire. Grantee's rights under this section apply equally to actual or threatened violations of this Conservation Easement.

Grantor agrees that Grantee's remedies at law for any violation of this Conservation Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this section, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of this Conservation Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity, including but not limited to the remedies set forth in California Civil Code Section 815, et seq. The failure of Grantee to discover a violation or to take immediate legal action shall not bar Grantee from taking such action at a later time.

(o) Costs of Enforcement.

All costs incurred by Grantee, where Grantee is the prevailing party, in enforcing the terms of this Conservation Easement against Grantor, including, but not limited to, costs of suit and attorneys' and experts' fees, and any costs of restoration necessitated by negligence or breach of this Conservation Easement, shall be borne by Grantor.

(p) Grantee's Discretion.

Enforcement of the terms of this Conservation Easement by Grantee shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Conservation Easement in the event of any breach of any term of this Conservation Easement shall not be deemed or construed to be a waiver of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any rights of Grantee under this Conservation Easement. No delay or omission by Grantee in the exercise of any right or remedy shall impair such right or remedy or be construed as a waiver.

(q) Acts Beyond Grantor's Control.

Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from (i) any natural cause beyond Grantor's control, including, without limitation, fire not caused by Grantor, flood, storm, and earth movement, or any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes; or (ii) acts by Grantee or its employees.

(r) Enforcement; Standing.

All rights and remedies conveyed to Grantee under this Conservation Easement shall extend to and are enforceable by the Third-Party Beneficiaries (as defined in Section 15(m)). These enforcement rights are in addition to, and do not limit, the

rights of enforcement under the MMP or the LTMP. If at any time in the future Grantor uses, allows the use, or threatens to use or allow use of, the Property for any purpose that is inconsistent with or in violation of this Conservation Easement then, despite the provisions of California Civil Code Section 815.7, the California Attorney General and the Third-Party Beneficiaries each has standing as an interested party in any proceeding affecting this Conservation Easement.

(s) Notice of Conflict.

If Grantor receives a Notice of Violation from Grantee or a Third-Party Beneficiary with which it is impossible for Grantor to comply consistent with any prior uncured Notice(s) of Violation, Grantor shall give written notice of the conflict (hereinafter "Notice of Conflict") to the Grantee and Third-Party Beneficiaries. In order to be valid, a Notice of Conflict shall be given within fifteen (15) days of the date Grantor receives a conflicting Notice of Violation, shall include copies of the conflicting Notices of Violation, and shall describe the conflict with specificity, including how the conflict makes compliance with the uncured Notice(s) of Violation impossible. Upon issuing a valid Notice of Conflict, Grantor shall not be required to comply with the conflicting Notices of Violation until such time as the entity or entities issuing said conflicting Notices of Violation issue(s) revised Notice(s) of Violation that resolve the conflict. Upon receipt of a revised Notice of Violation, Grantor shall comply with such notice within the time period(s) described in the first grammatical paragraph of this Section. The failure of Grantor to issue a valid Notice of Conflict within fifteen (15) days of receipt of a conflicting Notice of Violation shall constitute a waiver of Grantor's ability to claim a conflict.

(t) Reversion.

If the Approving Agencies determine that Grantee is not holding, monitoring or managing this Conservation Easement for conservation purposes in the manner specified in this Conservation Easement or in the MMP or the LTMP, or if Grantor does not provide funding for the perpetual management, maintenance and monitoring of the Property, as specified in and governed by the MMP, LTMP, and Master Agreement, then, pursuant to California Government Code Section 65965(c), this Conservation Easement shall revert to the State of California, or to another public agency or nonprofit organization qualified pursuant to Civil Code Section 815.3 and Government Code Section 65965 (and any successor or other provision(s) then applicable) and approved by the Approving Agencies.

18. Access.

This Conservation Easement does not convey a general right of access to the public.

19. Costs and Liabilities.

Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property. Grantor agrees that neither Grantee nor Third-Party Beneficiaries shall have any duty or responsibility for the operation, upkeep or maintenance of the Property, the monitoring of hazardous conditions on it, or the protection of Grantor, the public or any third parties from risks relating to conditions on the Property. Grantor remains solely responsible for obtaining any applicable governmental permits and approvals required for any activity or use permitted by this Conservation Easement and any activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency laws, statutes, ordinances, rules, regulations, orders and requirements.

(u) Taxes; No Liens.

Grantor shall pay before delinquency all taxes, assessments (general and special), fees, or charges of whatever description which may be legally levied on or assessed against the Property by competent authority (collectively "Taxes"), including any Taxes imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantor shall keep the Property free from any liens (other than a security interest that is expressly subordinated to this Conservation Easement, as provided in Section 15(k)), including those arising out of any obligations incurred by Grantor for any labor or materials furnished or alleged to have been furnished to or for Grantor at or for use on the Property.

(v) Hold Harmless.

Grantor shall hold harmless, protect and indemnify Grantee and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Grantee Indemnified Party" and collectively, "Grantee's Indemnified Parties") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "Claim" and, collectively, "Claims"), arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause, except that this indemnification shall be inapplicable to any Claim due solely to the negligence of Grantee or any of its employees; (ii) the obligations specified in Sections 5, 10 and 10(a); and (iii) the existence or administration of this Conservation Easement. If any action or proceeding is brought against any of the Grantee's Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from Grantee, defend such action or proceeding by counsel reasonably acceptable to the Grantee's Indemnified Party.

Grantor shall hold harmless, protect and indemnify Third-Party Beneficiaries and their respective directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of

them (each a "Third-Party Beneficiary Indemnified Party" and collectively, "Third-Party Beneficiary Indemnified Parties") from and against any and all Claims arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause and (ii) the existence or administration of this Conservation Easement. Provided, however, that the indemnification in this Section 10(b)(2) shall be inapplicable to a Third-Party Beneficiary Indemnified Party with respect to any Claim due solely to the negligence of that Third-Party Beneficiary Indemnified Party or any of its employees. If any action or proceeding is brought against any of the Third-Party Beneficiary Indemnified Parties by reason of any Claim to which the indemnification in this Section 10(b)(2) applies, then at the election of and upon written notice from the Third-Party Beneficiary Indemnified Party, Grantor shall defend such action or proceeding by counsel reasonably acceptable to the applicable Third-Party Beneficiary Indemnified Party or reimburse the Third-Party Beneficiary Indemnified Party for all charges incurred for services of the California Attorney General or the U.S. Department of Justice in defending the action or proceeding.

(w) Extinguishment.

If circumstances arise in the future that render the preservation of Conservation Values, including wetland functions and values, or other purposes of this Conservation Easement impossible to accomplish, this Conservation Easement can only be terminated or extinguished, in whole or in part, by judicial proceedings in a court of competent jurisdiction.

(x) Condemnation.

The purposes of this Conservation Easement are presumed to be the best and most necessary public use as defined at California Code of Civil Procedure Section 1240.680 notwithstanding Code of Civil Procedure Sections 1240.690 and 1240.700, unless the use for which the Property is sought to be taken is necessary to protect life or property.

20. Transfer of Conservation Easement or the Property.

(a) Conservation Easement.

This Conservation Easement may be assigned or transferred by Grantee upon written approval of the Approving Agencies, which approval shall not be unreasonably withheld or delayed, but Grantee shall give Grantor and the Approving Agencies at least sixty (60) days prior written notice of the proposed assignment or transfer. Grantee may assign or transfer its rights under this Conservation Easement only to an entity or organization: (i) authorized to acquire and hold conservation easements pursuant to California Civil Code Section 815.3 and Government Code Section 65965 (and any successor or other provision(s) then applicable), or the laws of the United States; and (ii) otherwise

reasonably acceptable to the Approving Agencies . Grantee shall require the assignee to record the assignment in the county where the Property is located. The failure of Grantee to perform any act provided in this Section shall not impair the validity of this Conservation Easement or limit its enforcement in any way. Any transfer under this Section is subject to the requirements of Section 12.

(b) The Property.

Grantor agrees to incorporate the terms of this Conservation Easement by reference in any deed or other legal instrument by which Grantor divests itself of any interest in all or any portion of the Property, including, without limitation, a leasehold interest. Grantor agrees that the deed or other legal instrument shall also incorporate by reference the MMP or the LTMP, and any amendment(s) to those documents. Grantor further agrees to give written notice to Grantee and the Approving Agencies of the intent to transfer any interest at least sixty (60) days prior to the date of such transfer. Grantee or the Approving Agencies shall have the right to prevent any transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Conservation Easement (including the exhibits and documents incorporated by reference in it). The failure of Grantor to perform any act provided in this section shall not impair the validity of this Conservation Easement or limit its enforceability in any way. Any transfer under this section is subject to the requirements of Section 12.

21. Merger.

The doctrine of merger shall not operate to extinguish this Conservation Easement if the Conservation Easement and the Property become vested in the same party. If, despite this intent, the doctrine of merger applies to extinguish the Conservation Easement then, unless Grantor, Grantee, and the Approving Agencies otherwise agree in writing, a replacement conservation easement or restrictive covenant containing the same protections embodied in this Conservation Easement shall be recorded against the Property.

22. Notices.

Any notice, demand, request, consent, approval, or other communication that Grantor or Grantee desires or is required to give to the other shall be in writing, with a copy to each of the Approving Agencies, and served personally or sent by recognized overnight courier that guarantees next-day delivery or by first class United States mail, postage fully prepaid, addressed as follows:

To Grantor: Executive Director & Agency Counsel
Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor
Sacramento, CA 95814

To Grantee:	Executive Director The Natomas Basin Conservancy 2150 River Plaza Dr., Suite 460 Sacramento, CA 95833
To CDFG:	Regional Manager California Department of Fish and Game North Central Region 1701 Nimbus Road, Suite A Rancho Cordova, CA 95670
With a copy to:	Department of Fish and Game Office of General Counsel 1416 Ninth Street, 12th Floor Sacramento, CA 95814-2090 Attn: General Counsel
To USFWS:	Field Supervisor United States Fish and Wildlife Service Sacramento Field Office 2800 Cottage Way, W-2605 Sacramento, CA 95825

Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, three (3) days after deposit into the United States mail.

23. Amendment.

This Conservation Easement may be amended only by mutual written agreement of Grantor and Grantee and written approval of the Approving Agencies, which approval shall not be unreasonably withheld or delayed. Any such amendment shall be consistent with the purposes of this Conservation Easement and California law governing conservation easements, and shall not affect its perpetual duration. Any such amendment shall be recorded in the official records of the county in which the Property is located, and Grantee shall promptly provide a conformed copy of the recorded amendment to the Grantor and the Approving Agencies.

24. Additional Provisions.

(y) Controlling Law.

The interpretation and performance of this Conservation Easement shall be governed by the laws of the United States and the State of California, disregarding the conflicts of law principles of such state.

(z) Liberal Construction.

Despite any general rule of construction to the contrary, this Conservation Easement shall be liberally construed to effect the purposes of this Conservation Easement and the policy and purpose of California Civil Code Section 815, et seq. and Government Code Section 65965. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(aa) Severability.

If a court of competent jurisdiction voids or invalidates on its face any provision of this Conservation Easement, such action shall not affect the remainder of this Conservation Easement. If a court of competent jurisdiction voids or invalidates the application of any provision of this Conservation Easement to a person or circumstance, such action shall not affect the application of the provision to any other persons or circumstances.

(bb) Entire Agreement.

This document (including its exhibits and the MMP and the LTMP incorporated by reference in this Easement) sets forth the entire agreement of the parties and the Approving Agencies with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings, or agreements of the parties relating to the Conservation Easement. No alteration or variation of this Conservation Easement shall be valid or binding unless contained in an amendment in accordance with Section 14.

(cc) No Forfeiture.

Nothing contained in this Conservation Easement will result in a forfeiture or reversion of Grantor's title in any respect.

(dd) Successors.

The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of, the parties and their respective personal representatives, heirs, successors, and assigns, and shall constitute a servitude running in perpetuity with the Property.

(ee) Termination of Rights and Obligations.

A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property,

except that liability for acts, omissions or breaches occurring prior to transfer shall survive transfer.

(ff) Captions.

The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

(gg) No Hazardous Materials Liability.

Grantor represents and warrants that it has no knowledge or notice of any Hazardous Materials (defined below) or underground storage tanks existing, generated, treated, stored, used, released, disposed of, deposited or abandoned in, on, under, or from the Property, or transported to or from or affecting the Property.

Without limiting the obligations of Grantor under Section 10 (b), Grantor hereby releases and agrees to indemnify, protect and hold harmless the Grantee's Indemnified Parties (defined in Section 10(b)(1)) from and against any and all Claims (defined in Section 10(b)(1)) arising from or connected with any Hazardous Materials or underground storage tanks present, alleged to be present, released in, from or about, or otherwise associated with the Property at any time, except any Hazardous Materials placed, disposed or released by Grantee or any of its employees. This release and indemnification includes, without limitation, Claims for (A) injury to or death of any person or physical damage to any property; and (B) the violation or alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Grantee's Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from the applicable Grantee Indemnified Party, defend such action or proceeding by counsel reasonably acceptable to the Grantee Indemnified Party.

Without limiting the obligations of Grantor under Section 10 (b), Grantor hereby releases and agrees to indemnify, protect and hold harmless the Third-Party Beneficiary Indemnified Parties (defined in Section 10(b)(2)) from and against any and all Claims arising from or connected with any Hazardous Materials or underground storage tanks present, alleged to be present, released in, from or about, or otherwise associated with the Property at any time, except that this release and indemnification shall be inapplicable to a Third-Party Beneficiary Indemnified Party with respect to any Hazardous Materials placed, disposed or released by that Third-Party Beneficiary Indemnified Party or any of its employees. This release and indemnification includes, without limitation, Claims for (A) injury to or death of any person or physical damage to any property; and (B) the violation of alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Third-Party Beneficiary Indemnified Parties by reason of any such

Claim, Grantor shall, at the election or and upon written notice from the applicable Third-Party Beneficiary Indemnified Party, defend such action or proceeding by counsel reasonably acceptable to the Third-Party Beneficiary Indemnified Party for all charges incurred for services of the California Attorney General or the U.S. Department of Justice in defending the action or proceeding.

Despite any contrary provision of this Conservation Easement, the parties do not intend this Conservation Easement to be, and this Conservation Easement shall not be, construed such that it creates in or gives to Grantee or any Third-Party Beneficiaries any of the following:

(A) The obligations or liability of an "owner" or "operator," as those terms are defined and used in Environmental Laws (defined below), including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. § 9601, et seq.; hereinafter, "CERCLA"); or

(B) The obligations or liabilities of a person described in 42 U.S.C. § 9607(a)(3) or (4); or

(C) The obligations of a responsible person under any applicable Environmental Laws; or

(D) The right to investigate and remediate any Hazardous Materials associated with the Property; or

(E) Any control over Grantor's ability to investigate, remove, remediate or otherwise clean up any Hazardous Materials associated with the Property.

The term "Hazardous Materials" includes, without limitation, (a) material that is flammable, explosive or radioactive; (b) petroleum products, including by-products and fractions thereof; and (c) hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in CERCLA, the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901, et seq.; hereinafter, "RCRA"); the Hazardous Materials Transportation Act (49 U.S.C. §5101, et seq.; hereinafter, "HTA"); the Hazardous Waste Control Law (California Health & Safety Code § 25100, et seq.; hereinafter, "HCL"); the Carpenter-Presley-Tanner Hazardous Substance Account Act (California Health & Safety Code § 25300, et seq.; hereinafter "HSA"), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable Environmental Laws now in effect or enacted after the date of this Conservation Easement.

The term "Environmental Laws" includes, without limitation, CERCLA, RCRA, HTA, HCL, HSA, and any other federal, state, local or administrative agency statute, ordinance, rule, regulation, order or requirement relating to pollution, protection of human health or safety, the environment or Hazardous Materials. Grantor represents, warrants and covenants to Grantee and Third-Party Beneficiaries that activities upon and use of the Property by Grantor, its agents, employees, invitees and contractors will comply with all Environmental Laws.

(hh) Warranty.

Grantor represents and warrants that Grantor is the sole owner of the Property. Grantor also represents and warrants that, except as specifically disclosed to and approved by the Approving Agencies pursuant to the Property Assessment and Warranty signed by Grantee and attached as an exhibit to the MMP or the LTMP, there are no outstanding mortgages, liens, encumbrances or other interests in the Property (including, without limitation, mineral interests) which may conflict or are inconsistent with this Conservation Easement.

(ii) Additional Interests.

Grantor shall not grant any additional easements, rights of way or other interests in the Property (other than a security interest that is expressly subordinated to this Conservation Easement), nor shall Grantor grant, transfer, abandon or relinquish (each a “Transfer”) any mineral, air, or water right or any water associated with the Property, without first obtaining the written consent of Grantee and the Approving Agencies. Such consent may be withheld if Grantee or the Approving Agencies determine(s) that the proposed interest or Transfer is inconsistent with the purposes of this Conservation Easement or will impair or interfere with the Conservation Values of the Property. This Section 15(k) shall not limit the provisions of Section 2(d) or 3(k), nor prohibit transfer of a fee or leasehold interest in the Property that is subject to this Conservation Easement and complies with Section 11. Grantor shall provide a copy of any recorded or unrecorded grant or Transfer document to the Grantee and Approving Agencies .

(jj) Recording.

Grantee shall record this Conservation Easement in the Official Records of the County in which the Property is located, and may re-record it at any time as Grantee deems necessary to preserve its rights in this Conservation Easement.

(kk) Third-Party Beneficiary.

Grantor and Grantee acknowledge that the CDFG and USFWS (the “Third-Party Beneficiaries”) are third party beneficiaries of this Conservation Easement with the right of access to the Property and the right to enforce all of the obligations of Grantor including, but not limited to, Grantor’s obligations under Section 15, and all other rights and remedies of the Grantee under this Conservation Easement.

(ll) Funding.

Funding for the perpetual management, maintenance and monitoring of the Property is specified in and governed by the MMP, the LTMP, and the Master Agreement. In the event that Grantor does not provide the specified funding for the perpetual management, maintenance and monitoring of the Property, Grantee may provide written notice to Grantor and the Approving Agencies of Grantee's intent to terminate its rights and obligations under this Easement. Grantee shall provide such notice no less than thirty (30) days prior to its relinquishment of its rights and obligations under this Conservation Easement. Upon the expiration of the thirty (30) days, this Conservation Easement shall revert to another entity as specified in Section 8(f) of this Easement.

IN WITNESS WHEREOF Grantor has executed this Conservation Easement Deed the day and year first above written.

TNBC:

THE NATOMAS BASIN CONSERVANCY, a California non-profit mutual benefit corporation

By:_____

Name:_____

Title:_____

SAFCA:

SACRAMENTO AREA FLOOD CONTROL AGENCY, a Joint Exercise of Powers Agency

By:_____
Stein M Buer, Executive Director

APPROVED AS TO FORM:

By:_____
General Counsel

P:\SAFCA\Natomas Levees\NLIP Easements -- Airport, SAFCA, TNBC Lands\Conservation Easement - Upper Woodlands (FML 3-12-09 clean).doc

B5 Conservation Easement Deed – Lauppe Property

No Recording Fee per Gov't Code § 6103
No Documentary Transfer Tax per R&T Code
§ 11922 - Governmental Acquisition

Recording Requested By:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
	)
When recorded, mail to:	)
SACRAMENTO AREA FLOOD CONTROL	)
AGENCY	)
1007 7th Street, 7th Floor	)
Sacramento, CA 95814	)

Parcel No.: 35-080-021

Space Above Line for Recorder's Use Only

CONSERVATION EASEMENT DEED

LAUPPE PROPERTY

THIS CONSERVATION EASEMENT DEED ("Conservation Easement" or "Easement") is made as of the _____ day of _____, 2008, by the Sacramento Area Flood Control Agency ("SAFCA" or "Grantor"), in favor of the Natomas Basin Conservancy ("TNBC") and TNBC's successors and assigns, (collectively "Grantee"). Grantor and Grantee, and each of their respective successors and assigns are sometimes hereinafter referred to collectively as "Parties" and individually as a "Party."

RECITALS

D. Grantor is a joint powers agency authorized under the laws of the State of California to hold title to real property, to take actions to protect life, property, watercourses, watersheds, and highways from damage from flood and storm waters, and to carry out its responsibilities in a manner that provides for the optimum protection of the natural environment, especially riparian habitat and natural stream channels suitable for native plant and wildlife habitat and public recreation.

B. Grantor is the sole owner in fee simple of certain real property, commonly referred to as the Lauppe Property which comprises a tract of land of approximately 9 acres designated Sacramento County APN ____ (the "Property"), located in the northern

portion of the Natomas Basin, near the junction of Sankey Road and the Sacramento River east levee. The Property is legally described and shown in Exhibit A attached to this Conservation Easement and incorporated herein by this reference.

C. The Property possesses significant agricultural, open space, and wildlife habitat values (collectively "Conservation Values") that support a diverse assemblage of wildlife species within the Natomas Basin, including the giant garter snake, which is protected under the Federal Endangered Species Act, 16 U.S.C. section 1531 et seq. ("FESA") and the Swainson's hawk, which is protected under the California Endangered Species Act, Fish and Game Code section 2050 et seq. ("CESA"). Preservation of these Conservation Values is of great importance to Grantor, Grantee, the people of the State of California, and the people of the United States.

D. SAFCA has initiated the Natomas Levee Improvement Program ("NLIP"), which includes alterations to the levee along the east bank of the Sacramento River in the vicinity of the Property. These alterations must be permitted by the U.S. Army Corps of Engineers ("Corps") under 33 U.S.C. section 408 and by the Central Valley Flood Protection Board under Title 23 of the California Code of Regulations. Because the alterations could affect the giant garter snake and its habitat and the Swainson's hawk and its habitat, the permits will include mandatory terms and conditions identified by the U.S. Fish and Wildlife Service ("USFWS") an agency within the United States Department of the Interior, pursuant to FESA (Biological Opinion USFWS File No. 81420-2008-F-0195) that will minimize these effects and by the California Department of Fish and Game ("CDFG") pursuant to CESA that will fully mitigate any unavoidable losses of such species and their habitat.

E. Grantee is a public benefit non-profit corporation organized under the laws of the State of California. Grantee's mission is to serve as the Plan Operator for implementing the Natomas Basin Habitat Conservation Plan ("NBHCP"). Grantee is authorized to hold this conservation easement pursuant to California Civil Code section 815.3 and Government Code section 65965. Specifically, Grantee is (i) a tax-exempt nonprofit organization qualified under section 501(c) (3) of the Internal Revenue Code of 1986, as amended, and qualified to do business in California; (ii) a "qualified organization" as defined in section 170 (h) (3) of the Internal Revenue Code; and (iii) an organization which has as its primary and principal purpose and activity the protection and preservation of natural lands or resources in their natural, scenic, agricultural, forested, or open space condition or use.

F. SAFCA has developed a Mitigation and Monitoring Plan ("MMP") and a Long Term Management Plan ("LTMP") which contain provisions specifically applicable to the Property in order to satisfy the requirements of FESA and CESA. The MMP, attached hereto as Exhibit B and incorporated herein, identifies the habitat features that SAFCA will create and preserve in NLIP Phase 2 and the measures that SAFCA will implement to ensure that the Property is reclaimed to a suitable condition for field crop

production following structure removal and grading activities. The LTMP, attached hereto as Exhibit C and incorporated herein, describes the NLIP habitat features, their linkage to the NBHCP, and the long-term management principles, easements, management agreements, and funding mechanisms that will apply to the habitat features, including the Property. The MMP and LTMP have been approved by the Corps, USFWS, and CDFG (collectively, "Approving Agencies"). Any future modifications or amendments to the MMP or the LTMP must be approved in writing by the Approving Agencies. Final copies of the MMP and LTMP and any amendments thereto shall be kept on file at the respective offices of the Approving Agencies. If Grantor, or any successor or assign, requires an official copy of the MMP or LTMP, it should request a copy from one of the Approving Agencies at its address for notices listed herein.

G. The Parties have agreed upon the payments or other compensation to be made by Grantor to Grantee for Grantee's maintenance of this Easement. The details of Grantor's responsibilities to compensate Grantee are described in a separate Master Agreement between the Natomas Basin Conservancy and the Sacramento Area Flood Control Agency regarding the Natomas Levee Improvement Program ("Master Agreement"). The Master Agreement is incorporated by reference into this Conservation Easement as though fully set forth herein.

H. All section numbers referred to in this Conservation Easement are references to sections within this Conservation Easement, unless otherwise indicated.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and pursuant to the laws of the United States and the State of California, including California Civil Code Section 815, et seq., Grantor hereby voluntarily grants and conveys to Grantee a conservation easement in perpetuity over the Property.

1. Purposes. The purposes of this Conservation Easement are to ensure that the Property will be retained forever in field crop production as contemplated in the MMP and the LTMP, and to prevent any use of the Property that will impair or interfere with the Conservation Values of the Property. Grantor intends that this Conservation Easement will confine the use of the Property to activities that are consistent with such purposes as set forth in the MMP and LTMP, including, without limitation, those involving the preservation, restoration and enhancement of field crop production and the habitat provided by land in field crop production.

2. Grantee's Rights. This Conservation Easement shall entitle Grantee and/or its successors or assignees to exercise the following rights and privileges on the Property:

(mm) To grow, cultivate, plant, harvest, weed, irrigate, and rotate appropriate agricultural crops, consistent with best management practices for field crop

production within the Natomas Basin as set forth in the MMP and the LTMP.

(b) To grade, level, drain, install irrigation, install drainage or carry out other maintenance activities as set forth in the MMP and the LTMP in order to maintain the Conservation Values of the Property.

(nn) To enter the Property at reasonable times, in order to monitor compliance with and otherwise enforce the terms of this Conservation Easement, the MMP and the LTMP and to implement at Grantee's sole discretion the LTMP activities that have not been implemented, provided that Grantee shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property.

(oo) To prevent any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this Conservation Easement.

(pp) To require that all mineral, air and water rights as Grantee deems necessary to preserve and protect the biological resources and Conservation Values of the Property shall remain a part of and be put to beneficial use upon the Property, consistent with the purposes of this Conservation Easement.

(qq) All present and future development rights appurtenant to, allocated, implied, reserved or inherent in the Property; such rights are hereby terminated and extinguished, and may not be used on or transferred to any portion of the Property, nor any other property adjacent or otherwise.

3. Prohibited Uses. Any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement is prohibited. Without limiting the generality of the foregoing, the following uses and activities by Grantor, Grantor's agents, and third parties are expressly prohibited:

(g) Recreational activities, including, but not limited to, horseback riding, biking, hunting or fishing.

(h) Non-agricultural commercial, industrial, residential, or institutional uses.

(c) Any legal or de facto division, subdivision or partitioning of the Property.

(d) Construction, reconstruction, erecting or placement of any non-agricultural building, billboard or signs, or any other non-agricultural structure or improvement of any kind

(e) Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other materials except as specifically provided in the MMP or the LTMP.

(f) Planting, introduction or dispersal of non-native or exotic plant or animal species.

(rr) Filling, dumping, excavating, draining, dredging, mining, drilling, removing or exploring for or extracting minerals, loam, soil, sand, gravel, rock or other material on or below the surface of the Property, or granting or authorizing surface entry for any of these purposes, except as specifically provided in the MMP or LTMP.

(ss) Altering the surface or general topography of the Property, including but not limited to any alterations to habitat, building roads or trails, paving or otherwise covering the Property with concrete, asphalt or any other impervious material except as specifically provided in the MMP or LTMP.

(tt) Removing, destroying, or cutting of trees, shrubs or other vegetation, except as required by law for (i) fire breaks, (ii) maintenance of existing foot trails or roads, (iii) prevention or treatment of disease, or (iv) as specifically provided in the MMP or LTMP.

(uu) Manipulating, impounding or altering any natural water course, body of water or water circulation on the Property, and any activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters, except as specifically provided in the MMP or LTMP.

(vv) Without the prior written consent of Grantee, which Grantee may withhold, transferring, encumbering, selling, leasing, or otherwise separating the mineral, air or water rights for the Property; changing the place or purpose of use of the water rights; abandoning or allowing the abandonment of, by action or inaction, any water or water rights, ditch or ditch rights, spring rights, reservoir or storage rights, wells, ground water rights, or other rights in and to the use of water historically used on or otherwise appurtenant to the Property, including but not limited to: (i) riparian water rights; (ii) appropriative water rights; (iii) rights to waters which are secured under contract with any irrigation or water district, to the extent such waters are customarily applied to the Property; and (iv) any water from wells that are in existence or may be constructed in the future on the Property.

(ww) Engaging in any use or activity that may violate, or may fail to comply with, relevant federal, state, or local laws, regulations, or policies applicable to Grantor, the Property, or the use or activity in question.

4. <u>Grantee's Duties.</u>

(xx) To ensure that the purposes of this Conservation Easement as

described in Section 1 are being accomplished, Grantee and its successors and assigns shall:

Perform, at a minimum on an annual basis, compliance monitoring inspections of the Property consistent with the LTMP; and

Prepare reports on the results of the compliance monitoring inspections, and provide these reports to the Approving Agencies on an annual basis.

(yy) In the event that the Grantee's interest in this easement is held by, reverts to, or is transferred to the State of California, Section 4(a) shall not apply.

5. Grantor's Duties. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property or that are otherwise inconsistent with this Conservation Easement. In addition, Grantor shall undertake all necessary actions to perfect and defend Grantee's rights under Section 2 of this Conservation Easement, and to observe and carry out the obligations of Grantor under the MMP and the LTMP.

6. Grantor's Uses and Notification Obligations. The prohibitions contained in this Easement are not intended to preclude Grantor from removing structures from the Property and grading the Property for field crop production consistent with the MMP. Upon completion of these activities, Grantor shall not undertake any further modifications to the flood control system or any other physical improvements to the Property that fall within the Prohibited Uses identified in Paragraph 3 above or that are inconsistent with the purposes of this Easement unless Grantor provides notice to Grantee and the Approving Agencies with a description of the proposed action, including an explanation of the necessity for the action, supported by data or relevant engineering information. Grantor shall provide this information to Grantee not less than sixty (60) days prior to the date Grantor intends to initiate this action and shall indicate whether the proposed action will require any additional compliance with FESA or CESA.

(a) Grantee and the Approving Agencies shall independently review this information and, within thirty (30) days of the receipt of Grantor's description, identify in writing any potential conflict between the proposed action and the Prohibited Uses or the Conservation Values of this Easement, or the requirements of FESA or CESA. If no written comments are received within this 30-day period, the proposed action shall be deemed acceptable.

(b) Grantor shall make a reasonable effort to modify the proposed action so as to avoid any conflict(s) identified by Grantee or the Approving Agencies. Grantor shall report back to Grantee within fifteen (15) days of receipt of any written comment regarding Grantor's plan to avoid such conflict(s).

(c) In the absence of any conflict with respect to the described action or upon resolution of any such conflict, Grantor shall proceed with its proposed action, provided that it shall not substantially alter the action without re-initiating the review process outlined in the immediately preceding subsections of this Paragraph. However, the mandatory procedures outlined in the immediately preceding subsections shall not apply in those instances when Grantee and the Approving Agencies in good faith determines that due to an Emergency, it cannot comply with such procedures. In such Emergencies, Grantor will make a reasonable effort to notify Grantee and the Approving Agencies prior to initiating any such activities. Fax or phone notification, with written follow-up, will be deemed adequate.

25. Reserved Rights.

Grantor reserves to itself, and to its personal representatives, heirs, successors, and assigns, all rights accruing from Grantor's ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited or limited by, and are consistent with the purposes of, this Conservation Easement.

26. Grantee's Remedies.

If Grantee determines that a violation of this Conservation Easement has occurred or is threatened, Grantee shall give written notice to Grantor of such violation and demand in writing the cure of such violation ("Notice of Violation"). If Grantor fails to cure the violation within thirty (30) days after receipt of a Notice of Violation, or if the cure reasonably requires more than thirty (30) days to complete and Grantor fails to begin the cure within the thirty (30)-day period or fails to continue diligently to complete the cure, Grantee may bring an action at law or in equity in a court of competent jurisdiction for any or all of the following: to recover any damages to which Grantee may be entitled for violation of the terms of this Conservation Easement or for any injury to the Conservation Values of the Property; to enjoin the violation, ex parte as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies; to pursue any other legal or equitable relief, including but not limited to, the restoration of the Property to the condition in which it existed prior to any violation or injury; or to otherwise enforce this Conservation Easement. Without limiting the liability of Grantor, Grantee may apply any damages recovered to the cost of undertaking any corrective action on the Property.

If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate injury to the Conservation Values of the Property, Grantee may pursue its remedies under this Conservation Easement without prior notice to Grantor or without waiting for the period provided for cure to expire. Grantee's rights under this section apply equally to actual or threatened violations of this Conservation Easement.

Grantor agrees that Grantee's remedies at law for any violation of this Conservation Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this section, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of this Conservation Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity, including but not limited to the remedies set forth in California Civil Code Section 815, et seq. The failure of Grantee to discover a violation or to take immediate legal action shall not bar Grantee from taking such action at a later time.

(zz) Costs of Enforcement.

All costs incurred by Grantee, where Grantee is the prevailing party, in enforcing the terms of this Conservation Easement against Grantor, including, but not limited to, costs of suit and attorneys' and experts' fees, and any costs of restoration necessitated by negligence or breach of this Conservation Easement, shall be borne by Grantor.

(aaa) Grantee's Discretion.

Enforcement of the terms of this Conservation Easement by Grantee shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Conservation Easement in the event of any breach of any term of this Conservation Easement shall not be deemed or construed to be a waiver of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any rights of Grantee under this Conservation Easement. No delay or omission by Grantee in the exercise of any right or remedy shall impair such right or remedy or be construed as a waiver.

(bbb) Acts Beyond Grantor's Control.

Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from (i) any natural cause beyond Grantor's control, including, without limitation, fire not caused by Grantor, flood, storm, and earth movement, or any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes; or (ii) acts by Grantee or its employees.

(ccc) Enforcement; Standing.

All rights and remedies conveyed to Grantee under this Conservation Easement shall extend to and are enforceable by the Third-Party Beneficiaries (as defined in Section 15(m)). These enforcement rights are in addition to, and do not limit, the rights of enforcement under the MMP or the LTMP. If at any time in the future Grantor uses, allows the use, or threatens to use or allow use of, the Property for any purpose that

is inconsistent with or in violation of this Conservation Easement then, despite the provisions of California Civil Code Section 815.7, the California Attorney General and the Third-Party Beneficiaries each has standing as an interested party in any proceeding affecting this Conservation Easement.

(ddd) Notice of Conflict.

If Grantor receives a Notice of Violation from Grantee or a Third-Party Beneficiary with which it is impossible for Grantor to comply consistent with any prior uncured Notice(s) of Violation, Grantor shall give written notice of the conflict (hereinafter "Notice of Conflict") to the Grantee and Third-Party Beneficiaries. In order to be valid, a Notice of Conflict shall be given within fifteen (15) days of the date Grantor receives a conflicting Notice of Violation, shall include copies of the conflicting Notices of Violation, and shall describe the conflict with specificity, including how the conflict makes compliance with the uncured Notice(s) of Violation impossible. Upon issuing a valid Notice of Conflict, Grantor shall not be required to comply with the conflicting Notices of Violation until such time as the entity or entities issuing said conflicting Notices of Violation issue(s) revised Notice(s) of Violation that resolve the conflict. Upon receipt of a revised Notice of Violation, Grantor shall comply with such notice within the time period(s) described in the first grammatical paragraph of this Section. The failure of Grantor to issue a valid Notice of Conflict within fifteen (15) days of receipt of a conflicting Notice of Violation shall constitute a waiver of Grantor's ability to claim a conflict.

(eee) Reversion.

If the Approving Agencies determine that Grantee is not holding, monitoring or managing this Conservation Easement for conservation purposes in the manner specified in this Conservation Easement or in the MMP or the LTMP, or if Grantor does not provide funding for the perpetual management, maintenance and monitoring of the Property, as specified in and governed by the MMP, LTMP, and Master Agreement, then, pursuant to California Government Code Section 65965(c), this Conservation Easement shall revert to the State of California, or to another public agency or nonprofit organization qualified pursuant to Civil Code Section 815.3 and Government Code Section 65965 (and any successor or other provision(s) then applicable) and approved by the Approving Agencies.

27. Access.

This Conservation Easement does not convey a general right of access to the public.

28. Costs and Liabilities.

Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property.

Grantor agrees that neither Grantee nor Third-Party Beneficiaries shall have any duty of responsibility for the operation, upkeep or maintenance of the Property, the monitoring of hazardous conditions on it, or the protection of Grantor, the public or any third parties from risks relating to conditions on the Property. Grantor remains solely responsible for obtaining any applicable governmental permits and approvals required for any activity or use permitted by this Conservation Easement and any activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency laws, statutes, ordinances, rules, regulations, orders and requirements.

(fff) Taxes; No Liens.

Grantor shall pay before delinquency all taxes, assessments (general and special), fees, or charges of whatever description which may be legally levied on or assessed against the Property by competent authority (collectively "Taxes"), including any Taxes imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantor shall keep the Property free from any liens (other than a security interest that is expressly subordinated to this Conservation Easement, as provided in Section 15(k)), including those arising out of any obligations incurred by Grantor for any labor or materials furnished or alleged to have been furnished to or for Grantor at or for use on the Property.

(ggg) Hold Harmless.

Grantor shall hold harmless, protect and indemnify Grantee and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Grantee Indemnified Party" and collectively, "Grantee's Indemnified Parties") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "Claim" and, collectively, "Claims"), arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause, except that this indemnification shall be inapplicable to any Claim due solely to the negligence of Grantee or any of its employees; (ii) the obligations specified in Sections 5, 10 and 10(a); and (iii) the existence or administration of this Conservation Easement. If any action or proceeding is brought against any of the Grantee's Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from Grantee, defend such action or proceeding by counsel reasonably acceptable to the Grantee's Indemnified Party.

Grantor shall hold harmless, protect and indemnify Third-Party Beneficiaries and their respective directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Third-Party Beneficiary Indemnified Party" and collectively, "Third-Party Beneficiary Indemnified Parties") from and against any and all Claims arising from or in

any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause and (ii) the existence or administration of this Conservation Easement. Provided, however, that the indemnification in this Section 10(b) (2) shall be inapplicable to a Third-Party Beneficiary Indemnified Party with respect to any Claim due solely to the negligence of that Third-Party Beneficiary Indemnified Party or any of its employees. If any action or proceeding is brought against any of the Third-Party Beneficiary Indemnified Parties by reason of any Claim to which the indemnification in this Section 10(b) (2) applies, then at the election of and upon written notice from the Third-Party Beneficiary Indemnified Party, Grantor shall defend such action or proceeding by counsel reasonably acceptable to the applicable Third-Party Beneficiary Indemnified Party or reimburse the Third-Party Beneficiary Indemnified Party for all charges incurred for services of the California Attorney General or the U.S. Department of Justice in defending the action or proceeding.

(hhh) Extinguishment.

If circumstances arise in the future that render the preservation of Conservation Values, including wetland functions and values, or other purposes of this Conservation Easement impossible to accomplish, this Conservation Easement can only be terminated or extinguished, in whole or in part, by judicial proceedings in a court of competent jurisdiction.

(iii) Condemnation.

The purposes of this Conservation Easement are presumed to be the best and most necessary public use as defined at California Code of Civil Procedure Section 1240.680 notwithstanding Code of Civil Procedure Sections 1240.690 and 1240.700, unless the use for which the Property is sought to be taken is necessary to protect life or property.

29. Transfer of Conservation Easement or the Property.

(a) Conservation Easement.

This Conservation Easement may be assigned or transferred by Grantee upon written approval of the Approving Agencies, which approval shall not be unreasonably withheld or delayed, but Grantee shall give Grantor and the Approving Agencies at least sixty (60) days prior written notice of the proposed assignment or transfer. Grantee may assign or transfer its rights under this Conservation Easement only to an entity or organization: (i) authorized to acquire and hold conservation easements pursuant to California Civil Code Section 815.3 and Government Code Section 65965 (and any successor or other provision(s) then applicable), or the laws of the United States; and (ii) otherwise reasonably acceptable to the Approving Agencies . Grantee shall require the assignee to record the assignment in the county where the Property is located. The failure of Grantee to perform any act provided in this Section shall not

impair the validity of this Conservation Easement or limit its enforcement in any way. Any transfer under this Section is subject to the requirements of Section 12.

(b) The Property.

Grantor agrees to incorporate the terms of this Conservation Easement by reference in any deed or other legal instrument by which Grantor divests itself of any interest in all or any portion of the Property, including, without limitation, a leasehold interest. Grantor agrees that the deed or other legal instrument shall also incorporate by reference the MMP or the LTMP, and any amendment(s) to those documents. Grantor further agrees to give written notice to Grantee and the Approving Agencies of the intent to transfer any interest at least sixty (60) days prior to the date of such transfer. Grantee or the Approving Agencies shall have the right to prevent any transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Conservation Easement (including the exhibits and documents incorporated by reference in it). The failure of Grantor to perform any act provided in this section shall not impair the validity of this Conservation Easement or limit its enforceability in any way. Any transfer under this section is subject to the requirements of Section 12.

30. Merger.

The doctrine of merger shall not operate to extinguish this Conservation Easement if the Conservation Easement and the Property become vested in the same party. If, despite this intent, the doctrine of merger applies to extinguish the Conservation Easement then, unless Grantor, Grantee, and the Approving Agencies otherwise agree in writing, a replacement conservation easement or restrictive covenant containing the same protections embodied in this Conservation Easement shall be recorded against the Property.

31. Notices.

Any notice, demand, request, consent, approval, or other communication that Grantor or Grantee desires or is required to give to the other shall be in writing, with a copy to each of the Approving Agencies, and served personally or sent by recognized overnight courier that guarantees next-day delivery or by first class United States mail, postage fully prepaid, addressed as follows:

To Grantor: Executive Director & Agency Counsel
Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor
Sacramento, CA 95814

To Grantee: Executive Director
The Natomas Basin Conservancy
2150 River Plaza Dr., Suite 460
Sacramento, CA 95833

To CDFG:	Regional Manager California Department of Fish and Game North Central Region 1701 Nimbus Road, Suite A Rancho Cordova, CA 95670
With a copy to:	Department of Fish and Game Office of General Counsel 1416 Ninth Street, 12th Floor Sacramento, CA 95814-2090 Attn: General Counsel
To USFWS:	Field Supervisor United States Fish and Wildlife Service Sacramento Field Office 2800 Cottage Way, W-2605 Sacramento, CA 95825

Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, three (3) days after deposit into the United States mail.

32. Amendment.

This Conservation Easement may be amended only by mutual written agreement of Grantor and Grantee and written approval of the Approving Agencies, which approval shall not be unreasonably withheld or delayed. Any such amendment shall be consistent with the purposes of this Conservation Easement and California law governing conservation easements, and shall not affect its perpetual duration. Any such amendment shall be recorded in the official records of the county in which the Property is located, and Grantee shall promptly provide a conformed copy of the recorded amendment to the Grantor and the Approving Agencies.

33. Additional Provisions.

(jjj) Controlling Law.

The interpretation and performance of this Conservation Easement shall be governed by the laws of the United States and the State of California, disregarding the conflicts of law principles of such state.

(kkk) Liberal Construction.

Despite any general rule of construction to the contrary, this Conservation Easement shall be liberally construed to effect the purposes of this Conservation Easement and the policy and purpose of California Civil Code Section 815,

et seq. and Government Code Section 65965. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(lll) Severability.

If a court of competent jurisdiction voids or invalidates on its face any provision of this Conservation Easement, such action shall not affect the remainder of this Conservation Easement. If a court of competent jurisdiction voids or invalidates the application of any provision of this Conservation Easement to a person or circumstance, such action shall not affect the application of the provision to any other persons or circumstances.

(mmm) Entire Agreement.

This document (including its exhibits and the MMP and the LTMP incorporated by reference in this Easement) sets forth the entire agreement of the parties and the Approving Agencies with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings, or agreements of the parties relating to the Conservation Easement. No alteration or variation of this Conservation Easement shall be valid or binding unless contained in an amendment in accordance with Section 14.

(nnn) No Forfeiture.

Nothing contained in this Conservation Easement will result in a forfeiture or reversion of Grantor's title in any respect.

(ooo) Successors.

The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of, the parties and their respective personal representatives, heirs, successors, and assigns, and shall constitute a servitude running in perpetuity with the Property.

(ppp) Termination of Rights and Obligations.

A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property, except that liability for acts, omissions or breaches occurring prior to transfer shall survive transfer.

(qqq) Captions.

The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

(rrr) No Hazardous Materials Liability.

Grantor represents and warrants that it has no knowledge or notice of any Hazardous Materials (defined below) or underground storage tanks existing, generated, treated, stored, used, released, disposed of, deposited or abandoned in, on, under, or from the Property, or transported to or from or affecting the Property.

Without limiting the obligations of Grantor under Section 10 (b), Grantor hereby releases and agrees to indemnify, protect and hold harmless the Grantee's Indemnified Parties (defined in Section 10(b)(1)) from and against any and all Claims (defined in Section 10(b)(1)) arising from or connected with any Hazardous Materials or underground storage tanks present, alleged to be present, released in, from or about, or otherwise associated with the Property at any time, except any Hazardous Materials placed, disposed or released by Grantee or any of its employees. This release and indemnification includes, without limitation, Claims for (A) injury to or death of any person or physical damage to any property; and (B) the violation or alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Grantee's Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from the applicable Grantee Indemnified Party, defend such action or proceeding by counsel reasonably acceptable to the Grantee Indemnified Party.

Without limiting the obligations of Grantor under Section 10 (b), Grantor hereby releases and agrees to indemnify, protect and hold harmless the Third-Party Beneficiary Indemnified Parties (defined in Section 10(b)(2)) from and against any and all Claims arising from or connected with any Hazardous Materials or underground storage tanks present, alleged to be present, released in, from or about, or otherwise associated with the Property at any time, except that this release and indemnification shall be inapplicable to a Third-Party Beneficiary Indemnified Party with respect to any Hazardous Materials placed, disposed or released by that Third-Party Beneficiary Indemnified Party or any of its employees. This release and indemnification includes, without limitation, Claims for (A) injury to or death of any person or physical damage to any property; and (B) the violation of alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Third-Party Beneficiary Indemnified Parties by reason of any such Claim, Grantor shall, at the election or and upon written notice from the applicable Third-Party Beneficiary Indemnified Party, defend such action or proceeding by counsel reasonably acceptable to the Third-Party Beneficiary Indemnified Party for all charges incurred for services of the California Attorney General or the U.S. Department of Justice in defending the action or proceeding.

Despite any contrary provision of this Conservation Easement, the parties do not intend this Conservation Easement to be, and this Conservation Easement shall not be, construed such that it creates in or gives to Grantee or any Third-Party Beneficiaries any of the following:

(A) The obligations or liability of an "owner" or "operator," as those terms are defined and used in Environmental Laws (defined below), including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. § 9601, et seq.; hereinafter, "CERCLA"); or

(B) The obligations or liabilities of a person described in 42 U.S.C. § 9607(a)(3) or (4); or

(C) The obligations of a responsible person under any applicable Environmental Laws; or

(D) The right to investigate and remediate any Hazardous Materials associated with the Property; or

(E) Any control over Grantor's ability to investigate, remove, remediate or otherwise clean up any Hazardous Materials associated with the Property.

The term "Hazardous Materials" includes, without limitation, (a) material that is flammable, explosive or radioactive; (b) petroleum products, including by-products and fractions thereof; and (c) hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in CERCLA, the Resource Conservation and Recovery Act of 1976 (42 U.S.C. § 6901, et seq.; hereinafter, "RCRA"); the Hazardous Materials Transportation Act (49 U.S.C. §5101, et seq.; hereinafter, "HTA"); the Hazardous Waste Control Law (California Health & Safety Code § 25100, et seq.; hereinafter, "HCL"); the Carpenter-Presley-Tanner Hazardous Substance Account Act (California Health & Safety Code § 25300, et seq.; hereinafter "HSA"), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable Environmental Laws now in effect or enacted after the date of this Conservation Easement.

The term "Environmental Laws" includes, without limitation, CERCLA, RCRA, HTA, HCL, HSA, and any other federal, state, local or administrative agency statute, ordinance, rule, regulation, order or requirement relating to pollution, protection of human health or safety, the environment or Hazardous Materials. Grantor represents, warrants and covenants to Grantee and Third-Party Beneficiaries that activities upon and use of the Property by Grantor, its agents, employees, invitees and contractors will comply with all Environmental Laws.

(sss) Warranty.

Grantor represents and warrants that Grantor is the sole owner of the Property. Grantor also represents and warrants that, except as specifically disclosed to and approved by the Approving Agencies pursuant to the Property Assessment and

Warranty signed by Grantee and attached as an exhibit to the MMP or the LTMP, there are no outstanding mortgages, liens, encumbrances or other interests in the Property (including, without limitation, mineral interests) which may conflict or are inconsistent with this Conservation Easement.

(ttt) Additional Interests.

Grantor shall not grant any additional easements, rights of way or other interests in the Property (other than a security interest that is expressly subordinated to this Conservation Easement), nor shall Grantor grant, transfer, abandon or relinquish (each a "Transfer") any mineral, air, or water right or any water associated with the Property, without first obtaining the written consent of Grantee and the Approving Agencies. Such consent may be withheld if Grantee or the Approving Agencies determine(s) that the proposed interest or Transfer is inconsistent with the purposes of this Conservation Easement or will impair or interfere with the Conservation Values of the Property. This Section 15(k) shall not limit the provisions of Section 2(e) or 3(k), nor prohibit transfer of a fee or leasehold interest in the Property that is subject to this Conservation Easement and complies with Section 11. Grantor shall provide a copy of any recorded or unrecorded grant or Transfer document to the Grantee and Approving Agencies .

(uuu) Recording.

Grantee shall record this Conservation Easement in the Official Records of the County in which the Property is located, and may re-record it at any time as Grantee deems necessary to preserve its rights in this Conservation Easement.

(vvv) Third-Party Beneficiary.

Grantor and Grantee acknowledge that the CDFG and USFWS (the "Third-Party Beneficiaries") are third party beneficiaries of this Conservation Easement with the right of access to the Property and the right to enforce all of the obligations of Grantor including, but not limited to, Grantor's obligations under Section 15, and all other rights and remedies of the Grantee under this Conservation Easement.

(www) Funding.

Funding for the perpetual management, maintenance and monitoring of the Property is specified in and governed by the MMP, the LTMP, and the Master Agreement. In the event that Grantor does not provide the specified funding for the perpetual management, maintenance and monitoring of the Property, Grantee may provide written notice to Grantor and the Approving Agencies of Grantee's intent to terminate its rights and obligations under this Easement. Grantee shall provide such notice no less than thirty (30) days prior to its relinquishment of its rights and obligations under this Conservation Easement. Upon the expiration of the thirty (30) days, this Conservation Easement shall revert to another entity as specified in Section 8(f) of this Easement.

IN WITNESS WHEREOF Grantor has executed this Conservation Easement Deed the day and year first above written.

TNBC:

THE NATOMAS BASIN CONSERVANCY, a California non-profit mutual benefit corporation

By:_____

Name:_____

Title:_____

SAFCA:

SACRAMENTO AREA FLOOD CONTROL AGENCY, a Joint Exercise of Powers Agency

By:_____
Stein M Buer, Executive Director

APPROVED AS TO FORM:

By:_____
General Counsel

P:\SAFCA\Natomas Levees\NLIP Easements -- Airport, SAFCA, TNBC Lands\Conservation Easement - Lauppe (SMW 3-12-09 clean).doc

B6 Master Agreement Between TNBC and SAFCA Regarding the NLIP

MASTER AGREEMENT BETWEEN
THE NATOMAS BASIN CONSERVANCY AND
THE SACRAMENTO AREA FLOOD CONTROL AGENCY
REGARDING THE NATOMAS LEVEE IMPROVEMENT PROGRAM

THIS MASTER AGREEMENT ("**Agreement**") is made this ____ day of _____, 2009, by THE NATOMAS BASIN CONSERVANCY, a California non-profit public benefit corporation ("**TNBC**"), and the SACRAMENTO AREA FLOOD CONTROL AGENCY, a joint exercise of powers agency established pursuant to the laws of the State of California ("**SAFCA**"). TNBC and SAFCA, and each of their respective successors and assigns, are sometimes hereinafter referred to collectively as "**Parties**" and individually as "**Party**."

RECITALS

WHEREAS, SAFCA is a joint powers agency authorized under the laws of the State of California to hold title to real property, to take actions to protect life, property, watercourses, watersheds, and highways from damage from flood and storm waters, and to carry out its responsibilities in a manner that provides for the optimum protection of the natural environment, especially riparian habitat and natural stream channels suitable for native plant and wildlife habitat and public recreation.

WHEREAS, in concert with the California Department of Water Resources and the Central Valley Flood Protection Board ("**State**"), SAFCA has initiated the Natomas Levee Improvement Program ("**NLIP**") to raise and strengthen the perimeter levee system around the Natomas Basin in Sacramento and Sutter Counties so as to reduce the risk of uncontrolled flooding that would cause substantial property damage in the Natomas Basin and pose a serious threat of loss of life and injury.

WHEREAS, SAFCA will construct a number of improvements to the perimeter levee system in phases over several years ("**Levee Improvements").** These improvements include, but are not limited to, improvements to the south levee of the Natomas Cross Canal ("**NCC**") and construction of a new levee and associated seepage remediation measures adjacent to the landside of the east levee of the Sacramento River ("**Adjacent Levee**") extending for approximately eighteen miles along the western edge of the Natomas Basin from the south levee of the NCC to Interstate 80. The Adjacent Levee will occupy a greatly expanded flood control footprint requiring removal of several hundred trees, relocation of two major irrigation canals and installation of several environmental mitigation features, including construction of a new drainage canal that will serve as a dispersion corridor for giant garter snake ("**GGS**") populations occupying the western portion of the Natomas Basin.

WHEREAS, the NLIP will be carried out in four phases (each a "**Phase**"), the first of which has already been completed. SAFCA anticipates that the second and third Phases will be completed in 2010, and the fourth Phase in 2011.

WHEREAS, TNBC was established to serve as the plan operator for the Natomas Basin Habitat Conservation Plan ("**NBHCP**") with responsibility for operating, managing and maintaining the upland and aquatic habitat features encompassed by the NBHCP. The purpose of the NBHCP is to promote biological conservation in conjunction with the economic and urban development of the Natomas Basin.

WHEREAS, to offset unavoidable impacts to woodlands and to the upland and aquatic habitat values provided by agricultural lands within the footprint of the Levee Improvements, the NLIP includes habitat compensation features (the "**HCF**") that are designed to achieve the following objectives: (i) further consolidate and expand the upland and aquatic habitat preserves currently operated and maintained by TNBC in accordance with the **NBHCP**; (ii) provide increased aquatic connectivity between the portions of the TNBC habitat preserves occupying the western portion of the Natomas Basin by constructing a new GGS/Drainage Canal (the "**GGS/Drainage Canal**"); (iii) extend the geographic scope of the TNBC habitat preserves in the northern portion of the Natomas Basin by acquiring and preserving rice crop land east of State Route 99/70 and arranging for the delivery of surface water to this land; (iv) offset losses of Swainson hawk foraging habitat in the western portion of the Natomas Basin by acquiring and preserving field crop land and establishing native grasslands within the footprint of the improved levee along the Sacramento River east levee and along the landside of the embankments forming the new canals; and (v) support the value of the foraging habitat in the western portion of the Natomas Basin by establishing new linear woodland corridors adjacent to the footprint of the new flood control improvements.

WHEREAS, in order to guide the design, construction and long-term management of the HCF for Phase 2 of the NLIP, and to comply with the requirements of the Federal Endangered Species Act ("**FESA**") and the California Endangered Species Act ("**CESA**") , SAFCA has developed a Mitigation, Monitoring and Management Program ("**MMMP")** for approval by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game (collectively "**Approving Agencies**"). Two documents together comprise the MMMP: a Mitigation and Monitoring Plan ("**MMP**") which generally describes how each of the HCF and canal improvements for Phase 2 will be designed, constructed and monitored to achieve specified objectives, and a Programmatic Long-Term Management Plan ("**LTMP**") which describes how each of the HCF and canal improvements will be operated, managed and maintained to preserve the specified habitat values in perpetuity and identifies the easements, management agreements, and funding mechanisms that will apply to each of the HCF and canal improvements.

WHEREAS, in order to facilitate the operational integration of the HCF and the habitat preserves created pursuant to the NBHCP, take advantage of TNBC's land management and administrative experience as the plan operator of the NBHCP, improve TNBC's biological effectiveness monitoring and its adaptive management capability within the Natomas Basin, and provide the greatest possible assurance of adequate funding for long-term management of the HCF and canal improvements, the LTMP identifies TNBC as the appropriate agency to assume principal responsibility for implementing the LTMP, incorporates the long-term management principles and monitoring practices set forth in the NBHCP, and relies on the finance model (the **"NBHCP Finance Model"**) developed in connection with the NBHCP to estimate the long-term costs of operating, managing and maintaining the HCF.

WHEREAS, SAFCA intends for TNBC to assume direct responsibility for managing the woodlands, rice, Swainson hawk foraging habitat, and marsh habitat created in accordance with the MMMP and to serve as a third-party monitor overseeing the management of the lower GGS/Drainage Canal, and TNBC has agreed to carry out these responsibilities subject to the terms and provisions of this Agreement. Toward this end, the Parties agree that at the commencement of each Phase of the NLIP, excluding the first Phase, SAFCA and TNBC will enter into implementing agreements that incorporate the terms and conditions of this Agreement and document the additional responsibilities that will be assumed by TNBC with respect to the operation, management and maintenance of the HCF to be completed during that Phase.

AGREEMENT

NOW, THEREFORE, the Parties agree as follows:

1. RECITALS. The recitals set forth above are hereby incorporated by this reference.

2. PURPOSE OF AGREEMENT. The purpose of this Agreement is to set forth the responsibilities of the Parties with respect to the creation, management and maintenance of the HCF and to serve as a framework for creating the implementing agreements and other documents that are needed to carry out these responsibilities at the outset of each Phase of the NLIP.

3. RESPONSIBILITIES OF THE PARTIES WITH REGARD TO HCF. As set forth in the LTMP, SAFCA shall be responsible for securing the real estate rights necessary to support each HCF; implementing the site specific improvements called for in the MMP and ensuring that these improvements achieve the performance criteria set forth therein; and establishing the long-term funding mechanisms necessary to cover the cost of TNBC's long-term management, monitoring and administrative responsibilities, including an allocated share of TNBC's general operating expenses and project-related overhead as further detailed in Section 8.2, and the cost of any property based fees and taxes imposed on the lands comprising the HCF. TNBC shall be responsible for controlling public access to the HCF; managing and maintaining the HCF containing woodlands, rice, Swainson hawk foraging habitat, and marsh habitat; conducting biological monitoring in connection with these; and carrying out such administrative tasks as may be necessary to support these monitoring and management efforts.

4. EASEMENTS. The real estate rights necessary to protect and support each HCF shall be set forth in a site specific HCF Easement ("**HCF Easement**") prepared by SAFCA and approved by TNBC and the Approving Agencies. The HCF Easement shall identify the land comprising the HCF, describe the uses of the land that will be permitted and prohibited consistent with the habitat conservation purposes of the HCF, and identify the rights and obligations of the Parties and of the Approving Agencies with respect to the HCF.

5. SITE SPECIFIC IMPROVEMENT PLANS. In connection with each HCF Easement, SAFCA shall prepare a site specific improvement plan ("**SSIP**") describing the landscape alterations, plantings, and irrigation and drainage improvements that SAFCA will undertake and the monitoring protocols that SAFCA will implement to create the site conditions for each HCF that is anticipated in the MMP and the LTMP. Each SSIP shall be approved by TNBC and the Approving Agencies.

6. SITE SPECIFIC MANAGEMENT PLANS. In connection with each HCF Easement, and following SAFCA's preparation and approval of the SSIP for such HCF Easements, TNBC shall prepare a site specific management plan ("**SSMP**") describing the operation, maintenance, and management activities, conservation measures, and monitoring and reporting activities that TNBC will undertake to ensure that the habitat

conservation objectives of the HCF are achieved. Each SSMP shall be prepared at a level of detail that is comparable to a site specific management plan which TNBC would prepare for a NBHCP habitat preserve with similar habitat characteristics as the HCF. Each SSMP shall be approved by SAFCA and the Approving Agencies.

7. GGS/DRAINAGE CANAL MONITORING. TNBC understands that as part of the NLIP, SAFCA intends to create the GGS/Drainage Canal to provide an aquatic habitat connection between NBHCP aquatic habitat preserves in the western portion of the Natomas Basin. The upper portion of the GGS/Drainage Canal will extend across a portion of Sacramento International Airport lands between the Natomas Central Mutual Water Company's Elkhorn Reservoir ("**Elkhorn Reservoir**") and Reclamation District 1000's ("**RD 1000**") North Drainage Canal. The lower portion of the GGS/Drainage Canal ("**Lower GGS/Drainage Canal**") will extend across land to be acquired by SAFCA between the Elkhorn Reservoir and RD 1000's West Drainage Canal south of Interstate 5. The Parties understand that the GGS/Drainage Canal, if and when completed, will be operated and maintained by RD 1000 under a long-term management agreement with SAFCA. At SAFCA's expense, and subject to specific terms of subsequent implementing agreements between TNBC and SAFCA. TNBC will be responsible for ongoing monitoring and reporting on the condition of the Lower GGS/Drainage Canal and RD 1000's performance of its operation and maintenance responsibilities in this portion of the system.

8. COST REIMBURSEMENT.

8.1 Reimbursement Obligation. As provided below, SAFCA shall pay TNBC on a yearly basis through calendar year 2037 its reasonable, out-of-pocket costs incurred to manage each HCF for which an implementing agreement has been adopted by the Parties.

8.2 Yearly Estimates. Prior to the commencement of TNBC's obligation to maintain an HCF and at least sixty (60) days prior to the end of each calendar year ("**CY**") through CY 2036-2037, TNBC shall use the NBHCP Finance Model to prepare an estimated expense budget, including appropriate allocation of general operating expenses, for each HCF it is then managing for the following CY (each an "**HCF Budget**"). SAFCA shall pay TNBC the amounts set forth in each HCF Budget on or before January 1 of the applicable year. TNBC shall have the right, subject to SAFCA's reasonable approval, to periodically revise any HCF Budget in accordance with the NBHCP Finance Model and SAFCA shall pay any increase in any HCF Budget within thirty (30) days after mutual approval of the revised budget.

8.3 Reconciliations. As soon as reasonably practicable after the end of each CY, TNBC shall furnish SAFCA a statement (each a "**Statement**") with respect to such year, showing expenditures, allocated general operating expenses, and project-related overhead for each HCF managed by it, and the total payments made by SAFCA with respect thereto. Project–related overhead shall be calculated in accordance with the NBHCP finance model. If SAFCA disputes any amounts set forth in the Statement, SAFCA shall have the right to audit's TNBC's books and records after giving TNBC

reasonable notice. The Parties shall work together in good faith to resolve any disputes relating to amounts set forth on a Statement. If a mutually approved Statement shows that SAFCA's advance payment exceeded direct expenses, allocated general operating expenses, or project-related overhead paid by SAFCA at the beginning of the CY, the overpayment shall be applied to SAFCA's payment obligation in the following year. If a mutually approved Statement shows that SAFCA paid less than TNBC's direct costs, allocated general operating expenses, and project-related overhead, SAFCA shall pay the amount of the underpayment (each a "**Deficit**") within thirty (30) days after mutual approval of the Statement.

8.4 Books and Records. TNBC hereby agrees to maintain accurate books and records with respect to each HCF. TNBC hereby acknowledges and agrees that each HCF shall have its own income and expenses statement and project-related overhead statement and TNBC's records shall be kept such that the revenues and expenses for each HCF shall be readily identifiable. TNBC hereby agrees to provide SAFCA copies of any invoices, reconciliations or agreements relating to any HCF within a reasonable period of time (no more than twenty (20) days) after SAFCA's written request therefor.

9. ENDOWMENT OFFSET/TERMINATION RIGHT. SAFCA hereby agrees that if it fails to pay any Deficit or amount ("Payment") provided in Section 8.2 within the time period required under Sections 8.2 and 8.3, as applicable, TNBC shall have the right, without waiving its right to seek reimbursement for such Deficit or Payment, to transfer such shortfall from the endowment accounts, as described in Section 10 below, to operating account(s) held by TNBC. If the amount of all SAFCA-funded endowments held by TNBC are insufficient to offset the deduction allowed for in this Section 9, TNBC shall have the right to terminate this Agreement after providing no less than thirty (30) days prior written notice to SAFCA. In the event that TNBC exercises its right to terminate this Agreement, each HCF Easement held by TNBC shall revert to the State of California, to SAFCA, or to another public agency or nonprofit organization qualified pursuant to Civil Code section 815.3 and Government Code section 65965(b), and approved by the Approving Agencies.

10. ENDOWMENT ADJUSTMENT/INVESTMENT.

10.1 Adjustments. SAFCA will fund an endowment for the maintenance of each HCF that TNBC will maintain from and after calendar year 2038 ("**HCF Endowment**"). The Parties will use the NBHCP Finance Model to calculate the amount of the HCF Endowment. However, the Parties acknowledge that providing an accurate calculation for each HCF Endowment is challenging. Thus, the Parties hereby agree that each HCF Endowment may be adjusted if it is determined that the Parties' initial estimates for the costs to manage an applicable HCF, or the revenue generated from the relevant HCF Endowment, were inaccurate. If TNBC believes that additional endowment funds are required, TNBC shall send a written request to SAFCA seeking an increase in an HCF endowment, together with TNBC's justification for the increase. TNBC and SAFCA shall meet and confer in good faith to discuss the requested increase in an HCF Endowment. If SAFCA approves (which approval shall not be unreasonably withheld) the increase, it shall increase the amount of the applicable HCF Endowment by

the mutually approved amount. TNBC agrees that SAFCA shall have the right to increase an HCF Endowment by making a lump sum payment or making payments over time, the time period of which shall be reasonably approved by TNBC. TNBC hereby agrees that in no event shall SAFCA (a) have an obligation to increase an HCF Endowment due to the returns, or lack thereof, achieved by any HCF Endowment, (b) be obligated to increase any HCF Endowment after calendar year 2037, (c) be required to increase any HCF Endowment if the current balance thereof is in excess of the current amount estimated to manage the applicable HCF after 2037, (d) contribute to any HCF Endowment more than twice before 2037, or (e) contribute to an HCF Endowment prior to the expiration of calendar year 2020.

10.2 Investment of Endowments. TNBC hereby agrees to invest each HCF Endowment pursuant to the same policies and procedures applicable to other NBHCP endowment funds.

11. UNFORESEEN EVENTS/CHANGED CIRCUMSTANCES. The Parties hereby acknowledge that each HCF may not achieve the site conditions specified in its SSIP during the applicable guaranty period or may be subject to Unforeseen Events (as defined in the LTMP) or Changed Circumstances (as defined in the LTMP). If any such events occurs, the Parties hereby agree that SAFCA shall be solely obligated to remedy such event, provided such event was not precipitated by the acts or omissions of TNBC, in which event TNBC shall be obligated to remedy such event at its cost. TNBC agrees to work with SAFCA in good faith in remedying any such event, but shall not be the party responsible for providing the remedy, except as otherwise provided in this Section.

12. INDEMNIFICATION.

12.1 SAFCA Indemnification. SAFCA shall defend, indemnify and hold harmless TNBC and its officers, directors, agents, employees and volunteers from and against all demands, claims, actions, liabilities, losses, damages, and costs, including reasonable attorneys' fees, arising out of or resulting from the breach of this Agreement by SAFCA.

12.2 TNBC Indemnification. TNBC shall defend, indemnify and hold harmless SAFCA and its officers, directors, agents, employees and volunteers from and against all demands, claims, actions, liabilities, losses, damages, and costs, including reasonable attorneys' fees, arising out of or resulting from the breach of this Agreement by TNBC.

12.3 Survival. The indemnifications set forth in this Section 12 shall survive the expiration or termination of this Agreement.

13. MISCELLANEOUS PROVISIONS

13.1 Notice. Any notice, demand, request, consent, communication, or approval given pursuant to this Agreement shall be in writing and shall be either personally delivered or sent by first class mail, postage prepaid, addressed as follows:

SAFCA: SAFCA
Attn: Executive Director
1007 7th Street, 7th Floor
Sacramento, California 95814
Facsimile No.: (916) 874-8289

With a copy to: SAFCA
Attn: Agency Counsel
1007 7th Street, 7th Floor
Sacramento, California 95814
Facsimile No.: (916) 874-8289

TNBC: The Natomas Basin Conservancy
2150 River Plaza Dr., Suite 460
Sacramento, CA 95833
Attn: John Roberts
Facsimile No.: (916) 649-3322

Either Party may change the address to which subsequent notice and/or other communications should be sent by giving written notice designating a change of address to the other Party, which shall be effective upon receipt.

13.2 Legal Fees. SAFCA hereby agrees to pay all legal fees incurred by TNBC to negotiate and draft this Agreement and all amendments hereto.

13.3 Compliance with Laws. TNBC and SAFCA shall observe and comply with all applicable laws, regulations and ordinances.

13.4 Governing Laws and Jurisdiction. This Agreement shall be deemed to have been executed and to be performed within the State of California and shall be construed and governed by the internal laws of the State of California and applicable Federal laws. Any legal proceedings arising out of or relating to this Agreement shall be brought in Sacramento County, California.

13.5 Amendment and Waiver. Except as provided herein, no alteration, amendment, variation, or waiver of the terms of this Agreement shall be valid unless made in writing and signed by both Parties. Waiver by either Party of any default, breach or condition precedent shall not be construed as a waiver of any other default, breach or condition precedent, or any other right hereunder.

13.6 Successors. This Agreement shall be binding upon, and inure to the benefit of, the successors and assigns of TNBC and SAFCA in the same manner as if they were expressly named. The obligations under this Agreement may not be assigned without the express written consent of the other Party.

13.7 Interpretation. This Agreement shall be deemed to have been prepared equally by both of the Parties, and the Agreement and its individual provisions shall not

be construed or interpreted more favorably for one Party on the basis that the other Party prepared it.

13.8 Prevailing Party. In the event either Party initiates or defends any legal action or proceeding to enforce or interpret any of the terms of this Agreement, the prevailing Party in any such action or proceeding shall be entitled to recover from the losing Party in any such action or proceeding its reasonable costs and attorneys' fees, including its reasonable costs and attorneys' fees on appeal or in enforcing any judgment awarded to it.

13.9 Partial Invalidity. If any term or provision of this Agreement or the application of it to any person or circumstance shall to any extent be invalid or unenforceable, the remainder of this Agreement or the application of such term or provision to persons or circumstances, other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and shall be enforced to the extent permitted by law.

13.10 Non-Liability of Officials, Employees and Agents. Notwithstanding anything to the contrary in this Agreement, no Board member, officer, employee or agent of SAFCA shall be personally liable to TNBC, its successors and assigns, in the event of any default or breach by SAFCA or for any amount which may become due to TNBC, its successors and assigns, or for any obligation of SAFCA under this Agreement. Likewise, notwithstanding anything to the contrary in this Agreement, no Board member, officer, employee or agent of TNBC shall be personally liable to SAFCA, its successors and assigns, in the event of any default or breach by TNBC or for any amount which may become due to SAFCA, its successors and assigns, or for any obligation of TNBC under this Agreement.

13.11 Duplicate Counterparts. This Agreement may be executed in duplicate counterparts. The Agreement shall be deemed executed when it has been signed by both Parties.

13.12 Authority to Execute. Each person executing this Agreement represents and warrants that he or she is duly authorized and has legal authority to execute and deliver this Agreement for or on behalf of the Parties to this Agreement. Each Party represents and warrants to the other that the execution and delivery of the Agreement and the performance of such Party's obligations hereunder has been duly authorized.

13.13 Incorporation of Recitals and Introductory Section. The Recitals contained in this Agreement and the introductory section preceding the Recitals are hereby incorporated into this Agreement as if fully set forth herein.

13.14 Further Assurances. The Parties hereby agree to cooperate with each other by executing such other documents or taking such other action as may be reasonably necessary to complete this transaction in accordance with the intent of the Parties as evidenced in this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

TNBC:

THE NATOMAS BASIN CONSERVANCY, a California non-profit mutual benefit corporation

By:_____

Name:_____

Title:_____

SAFCA:

SACRAMENTO AREA FLOOD CONTROL AGENCY, a joint exercise of powers agency

By:_____
Stein M. Buer, Executive Director

APPROVED AS TO FORM:

By:_____
General Counsel

P:\SAFCA\Natomas Levees\NLIP Easements -- Airport, SAFCA, TNBC Lands\Master Agreement TNBC-SAFCA v.4.doc

B7 Management Agreement Between SAFCA and RD 1000 Regarding the Upper GGS/Drainage Canal Portion of the NLIP Phase 2 Project

MANAGEMENT AGREEMENT BETWEEN THE SACRAMENTO AREA FLOOD CONTROL AGENCY AND RECLAMATION DISTRICT NO. 1000 REGARDING THE UPPER GIANT GARTER SNAKE/DRAINAGE CANAL PORTION OF THE NATOMAS LEVEE IMPROVEMENT PROGRAM PHASE 2 PROJECT

This Management Agreement ("Agreement") is made and entered into this ___ day of _____, 2009 by and between the **SACRAMENTO AREA FLOOD CONTROL AGENCY**, a public entity of the State of California, formed as a Joint Powers Agency ("SAFCA"), and **RECLAMATION DISTRICT NO. 1000**, a public entity of the State of California, formed by special act of the California Legislature ("RD 1000"), with reference to the facts hereinafter set forth.

RECITALS

A. SAFCA has initiated the Natomas Levee Improvement Program ("NLIP") to construct improvements to the perimeter levee system that protects the 53,000 acre Natomas Basin in northern Sacramento County and southern Sutter County to provide the Natomas Basin with at least a 100-year level of flood protection as quickly as possible and to lay the groundwork for providing at least a 200-year level of flood protection over time. These levee improvements will be constructed in phases over several years. The NLIP Phase 2 Project ("Phase 2 Project") includes an adjacent set-back levee, seepage cut-off walls, and seepage berms ("Flood Control Facilities"). The Phase 2 Project also includes environmental features, in particular, for purposes of this Agreement, an open canal generally parallel to the Sacramento River East Levee, between the North Drainage Canal at the RD 1000 Pumping Plant No. 2 and

the Elkhorn Reservoir north of the Teal Bend Golf Club ("GGS/Drainage Canal" or "Drainage Canal") and an operations and maintenance corridor on each side of the Drainage Canal.

B. The County of Sacramento ("County") owns real property along the Sacramento River East Levee on which a portion of the Drainage Canal will be constructed ("Drainage Canal Area"). SAFCA is in the process of acquiring through condemnation two parcels within the Drainage Canal Area that will be transferred to the County upon completion of the condemnation process. The Drainage Canal Area possesses significant agricultural, open space, and wildlife habitat values supporting species that are protected under either or both the Federal Endangered Species Act and the California Endangered Species Act, such as the giant garter snake and the Swainson's hawk.

C. The Drainage Canal will function as a significant integrated component of the system of drainage and irrigations facilities that serve the Natomas Basin. RD 1000, a member agency of SAFCA, has primary responsibility for operating and maintaining the interior drainage system and the levees that protect the Natomas Basin, including, without limitation, the Sacramento East Levee, the Natomas Cross Canal South Levee, the Pleasant Grove Creek Canal West Levee, the Natomas East Main Drainage Canal West Levee, and the American River North Levee. RD 1000 will be responsible for operating and maintaining the GGS/Drainage Canal and implementing conservation measures to address the impacts from these operation and maintenance activities within the Drainage Canal Area.

D. RD 1000 and SAFCA intend to negotiate an agreement with the State of California Central Valley Flood Protection Board ("CVFPB") under which RD 1000 will operate and maintain the Flood Control Facilities and, among other items, to indemnify CVFPB according to the terms that SAFCA, RD 1000 and CVFPB shall negotiate.

E. The Parties desire to execute this Agreement in order to establish their respective rights and obligations concerning operation and maintenance activities in the Drainage Canal Area and the measures that will be implemented to address the impacts from these activities.

AGREEMENT

1. SAFCA is acquiring rights in land for construction, operation, and maintenance of the Phase 2 Project, including the GGS/Drainage Canal and access areas in the Drainage Canal Area. SAFCA is also obtaining all required permits for the Phase 2 Project from the relevant permitting authorities, including the United States Army Corps of Engineers, the United States Fish and Wildlife Service ("USFWS"), and the California Department of Fish and Game ("CDFG"), (collectively, the "Approving Agencies"). Specifically for purposes of this Agreement, SAFCA is acquiring a Perpetual Drainage Canal Easement ("Easement") from the County that will enable SAFCA to construct and manage the GGS/Drainage Canal consistent with the terms of the Easement and the permits issued by the Approving Agencies.
2. SAFCA will grant to RD 1000 the rights to use of the land as necessary for RD 1000 to manage the Drainage Canal Area in accordance with this Agreement, the

Easement, the NLIP Landside Improvements Project Programmatic Long Term Management Plan ("LTMP"), and the Upper Giant Garter Snake/Drainage Canal Site Specific Management Plan ("Upper GGS/Drainage Canal SSMP"), which is an Appendix to the LTMP. SAFCA may convey such rights to RD 1000 by whatever conveyance SAFCA and RD 1000 deem appropriate.

3. SAFCA shall be responsible for constructing the Drainage Canal consistent with the Natomas Levee Improvement Program Phase 2 Project Mitigation and Monitoring Plan ("MMP"). SAFCA shall be responsible for the proper functioning of the Drainage Canal components the MMP for a period of eight (8) years.
4. RD 1000 shall operate and maintain the Drainage Canal Area consistent with the description of each operation and maintenance activity set forth in the Upper GGS/Drainage Canal SSMP and with the terms, conditions, and restrictions set forth in the Easement.
5. RD 1000 shall implement the avoidance, minimization, and mitigation measures ("Conservation Measures") set forth in the Upper GGS/Drainage Canal SSMP to address the impacts from the operation and maintenance activities it conducts in the Drainage Canal Area.
6. RD 1000 shall undertake the reporting requirements set forth in the Upper GGS/Drainage Canal SSMP to provide information to SAFCA to allow SAFCA and the Approving Agencies to determine whether operation and maintenance of the Drainage Canal Area complies with the terms and conditions of the LTMP, including the Upper GGS/Drainage Canal SSMP, and the Easement.

7. RD 1000 shall cooperate with USFWS and CDFG in developing and implementing revisions to the LTMP to reflect ongoing research or management principles pursuant to the adaptive management program set forth in the Natomas Basin Habitat Conservation Plan.

8. SAFCA, in consultation with RD 1000, has estimated that the annual cost of operating and maintaining the Drainage Canal Area and implementing and maintaining the Conservation Measures will be approximately $ XXX. SAFCA shall reimburse RD 1000 for RD 1000's costs incurred for operation and maintenance of the Drainage Canal Area and its implementation and maintenance of the Conservation Measures. RD1000 shall keep records of its costs of operating and maintaining the Drainage Canal Area and of complying with the Conservation Measures, including its fully loaded employee labor cost for RD1000 employee time (including field personnel at hourly wages plus 15 percent and management at an appropriate percentage of salary, based on the time devoted divided by the total time worked for RD1000 for the relevant year, plus 15 percent) for operation and maintenance, record keeping, training and reporting activities, consultants' fees incurred and paid, cost of supplies utilized, cost of water purchased and other costs incurred. RD1000 shall submit a report of such costs incurred, by category and as a total, for each RD1000 fiscal year (July 1 through June 30) or portion thereof, to SAFCA on or before September 1 of each following RD1000 fiscal year, and SAFCA shall reimburse such costs to RD1000 within a period of thirty (30) days following its receipt of such report. RD1000

shall make its back-up records available to SAFCA for SAFCA's inspection and audit for the period of the two (2) RD 1000 fiscal years last past.

9. Either Party may terminate this Agreement upon XX months/days written notice to the other Party. Upon such termination, the operation and maintenance and habitat preservation activities for the Drainage Canal Area shall be and become the responsibility of SAFCA. SAFCA retains the right to reach agreement with a third party to carry out these operation and maintenance and habitat preservation activities.

10. SAFCA and RD 1000 shall have all remedies available in equity and at law to enforce the terms of this Agreement, including, without limitation, the remedies of specific performance and damages.

11. No Party to this Agreement may assign any right or obligation pursuant to this Agreement. Any purported or attempted assignment of any right or obligation pursuant to this Agreement shall be void and of no effect.

12. The Parties shall make a good faith effort to settle any dispute or claim arising under this Agreement. If the Parties fail to resolve such disputes or claims, they shall submit them to nonbinding mediation in California. If mediation does not arrive at a satisfactory result, arbitration, if agreed to by both Parties, or litigation may be pursued. In the event any of these dispute resolution processes are involved, each Party shall bear its own costs and attorneys fees.

13. This Agreement supersedes any and all agreements, either oral or written, between the Parties hereto with respect to the operation and maintenance of the

Drainage Canal Area and contains all of the covenants and agreements between the Parties with respect to the rendering of such services in any manner whatsoever. The Parties to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any Party, or anyone acting on behalf of any Party, which are not embodied herein, and that no other agreement, statement or promise not contained in this Agreement shall be valid or binding. No alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by the Parties hereto.

IN WITNESS WHEREOF, the Parties have executed this Agreement the day and year first above written.

SACRAMENTO AREA FLOOD CONTROL AGENCY

BY_____
STEIN M. BUER,
EXECUTIVE DIRECTOR

APPROVED AS TO FORM:

RECLAMATION DISTRICT NO. 1000

BY_____
PAUL DEVEREUX
GENERAL MANAGER

APPROVED AS TO FORM:

BY_____

B8 Memorandum of Understanding Between NCMWC and SAFCA Regarding the NLIP

MEMORANDUM OF UNDERSTANDING BETWEEN

THE NATOMAS CENTRAL MUTUAL WATER COMPANY AND

THE SACRAMENTO AREA FLOOD CONTROL AGENCY

REGARDING THE NATOMAS LEVEE IMPROVEMENT PROGRAM

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is made this ____ day of _____, 2009, by and between the Natomas Central Mutual Water Company, a California corporation ("**Natomas**"), and the Sacramento Area Flood Control Agency, a joint exercise of powers agency established pursuant to the laws of the State of California ("SAFCA"). Natomas and SAFCA, and each of their respective successors and assigns, are sometimes hereinafter referred to collectively as "Parties" and individually as "Party."

RECITALS

A. SAFCA is a joint powers agency authorized under the laws of the State of California to hold title to real property, to take actions to protect life, property, watercourses, watersheds, and highways from damage from flood and storm waters, and to carry out its responsibilities in a manner that provides for the optimum protection of the natural environment, especially riparian habitat and natural stream channels suitable for native plant and wildlife habitat and public recreation.

B. In concert with the California Department of Water Resources and the Central Valley Flood Protection Board ("State"), SAFCA has initiated a program of improvements to the perimeter levee system around the Natomas Basin in Sacramento and Sutter Counties ("NLIP")

to reduce the risk of uncontrolled flooding that would cause substantial property damage in the urbanized portion of the Natomas Basin and pose a serious threat of loss of life and injury.

C. SAFCA's primary objectives for the NLIP are to provide the Natomas Basin with a 100-year level of flood protection as quickly as possible while laying the groundwork for achieving a 200-year level of flood protection over time. SAFCA's secondary objectives are to use flood control improvements in the vicinity of the Sacramento International Airport (the "Airport") to facilitate management of the Airport's northern bufferlands in accordance with the Airport's Wildlife Hazard Management Plan and to use flood control improvements in the northern and western portions of the Natomas Basin to improve existing irrigation and drainage facilities and increase the extent and connectivity of the lands in these portions of the Natomas Basin that are being managed for giant garter snake, Swainson's hawk and other special status species.

D. The NLIP will involve construction of a range of improvements, including but not limited to, a new levee and associated seepage remediation measures adjacent to the landside of the east levee of the Sacramento River ("Adjacent Levee") extending for approximately eighteen miles along the western edge of the Natomas Basin from the south levee of the Natomas Cross Canal to Interstate 80. The Adjacent Levee will occupy a greatly expanded flood control footprint requiring removal of several hundred trees, relocation of two major irrigation canals and installation of several environmental mitigation features, including construction of a new drainage canal that will serve as a dispersion corridor for giant garter snake ("GGS") populations occupying the western portion of the Natomas Basin.

E. To offset unavoidable impacts to woodlands and to the upland and aquatic habitat values provided by agricultural lands within the footprint of the levee improvements, the NLIP includes habitat compensation features that are designed to achieve the following objectives: (i) consolidate and expand the upland and aquatic habitat preserves currently operated and maintained by The Natomas Basin Conservancy ("TNBC") in accordance with the Natomas Basin Habitat Conservation Plan; (ii) provide aquatic connectivity between the portions of the TNBC habitat preserves occupying the western portion of the Natomas Basin by constructing a new GGS/Drainage Canal ("GGS/Drainage Canal"); (iii) extend the geographic scope of the TNBC habitat preserves in the northern portion of the Natomas Basin by acquiring and preserving rice crop land east of State Route 99/70 and, if possible, arranging for the delivery of surface water to this land; (iv) offset losses of Swainson's hawk foraging habitat in the western portion of the Natomas Basin by acquiring and preserving field crop land and establishing native grasslands within the footprint of the improved levee along the Sacramento River east levee and along the landside of the embankments forming the new canals; and (v) support the value of the foraging habitat in the western portion of the Natomas Basin by establishing new linear woodland corridors adjacent to the footprint of the new flood control improvements.

F. In order to guide the design, construction and long-term management of the habitat compensation features and to comply with the requirements of Federal Endangered Species Act and the California Endangered Species Act, SAFCA has prepared and submitted to the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game ("Approving Agencies") a Mitigation and Monitoring Plan

("MMP") which describes how each of the habitat compensation features will be designed, constructed and monitored to achieve specified habitat compensation objectives, and a Long-Term Management Plan ("LTMP") which describes how each of the habitat compensation features will be operated, managed and maintained to preserve the specified habitat values in perpetuity.

G. Natomas is a mutual water company organized and existing under the laws of the State of California. Natomas holds appropriative water rights issued by the State of California and a Sacramento River Water Right Settlement Contract entered into by and between Natomas and the United States Department of the Interior, Bureau of Reclamation. Natomas operates and maintains a water delivery system for the principal purpose of delivering water from such system at cost to its shareholders. The service area of Natomas encompasses approximately 38,000 acres within the Natomas Basin, in northwestern Sacramento County and southern Sutter County.

H. Natomas has completed environmental review for the American Basin Fish Screen and Habitat Improvement Project (the "Fish Screen Project") which includes the consolidation of Natomas' five existing water pumping plants on the Sacramento River and Natomas Cross Canal (the "NCC") into either one or two diversion facilities; the removal of one privately owned pump adjacent to Natomas' Sankey Diversion; the addition of state-of-the-art fish screens to the new diversion(s); the elimination of the existing Verona Dam and diesel lift pumps at the mouth of the NCC; and the modification of the existing system of distribution

canals to maintain the current level of irrigation service. Natomas intends to commence construction of the Fish Screen Project in 2009.

I. The convergence of the NLIP and Natomas' Fish Screen Project has created a unique opportunity for the Parties to cooperate in improving the flood control, irrigation and drainage infrastructure that is needed to provide long-term sustainable benefits to the urban and agricultural lands in the Natomas Basin. Such cooperation has the potential to expedite construction of the needed infrastructure improvements and lower the cost of such construction. Accordingly, both Parties have a strong interest in establishing a relationship that will enable the Parties to capture these benefits.

J. This MOU will serve as a non-binding framework for creating and implementing the cooperative agreements that will be needed during the initial phases of the NLIP to enable the Parties to pursue their respective and mutual interests in connection with this program.

UNDERSTANDINGS

1. Implementing Agreements. The Parties understand that implementation of the improvements covered by this MOU will require a series of implementing agreements between SAFCA and Natomas as depicted in Exhibit A. Natomas will cooperate with SAFCA in negotiating the terms of these implementing agreements in a timely manner so as not to delay implementation of the NLIP.

1.1 Implementation Agreement 1

The NLIP includes improvements to the south levee of the NCC and the upper reach of the east levee of the Sacramento River. This work is interrelated to Natomas' construction of the new Sankey Diversion and Sankey Highline Canal and subsequent abandonment of the Bennett and Northern Pumps. The new Sankey Highline Canal will be constructed running west to east to connect the Sankey Diversion to the existing Bennett and Northern highline canals. Water from the Northern Highline Canal will be provided to Brookfield and adjacent lands by Natomas. SAFCA will complete construction of new levee and roadway improvements near Sankey Road in a manner that accommodates the new Sankey Diversion and Sankey Highline Canal. Implementation Agreement 1 will address the issues associated with the above improvements.

1.2 Implementation Agreement 2

NLIP improvements to the east levee of the Sacramento River in the vicinity of Natomas' Prichard Lake pumping plant and North Elkhorn Irrigation Canal will require retrofitting and relocation of these facilities to accommodate the improved levee. Additionally, as part of its improvement plan, SAFCA is going to construct a new drainage canal which will be called the Upper GGS/Drainage Canal across land in Natomas' service area owned by Sacramento County and SAFCA. SAFCA and Sacramento County will exercise their rights as Natomas shareholders to have water delivered to their land in the Upper GGS/Drainage Canal corridor. Implementation Agreement 2 will address the issues associated with the above improvements.

1.3 Implementation Agreement 3

The NLIP improvements to the east levee of the Sacramento River in the vicinity of Natomas' Elkhorn Pumping Plant and South Elkhorn Irrigation Canal will require retrofitting and relocation of these facilities. In addition, SAFCA's improvement plan includes replacement of the 24 inch pipeline running along the western border of the Sacramento County Airport property, construction of new irrigation facilities to irrigate the lands west of the airport construction of a new drainage canal called the Lower GGS/Drainage Canal across lands in Natomas' service area acquired by SAFCA and abandonment of Natomas' west airport ditch. SAFCA will exercise their rights as Natomas shareholders to have water delivered to their land in the Upper GGS/Drainage Canal corridor. Implementation Agreement 3 will address the issues associated with the above improvements.

1.4 Implementation Agreement 4

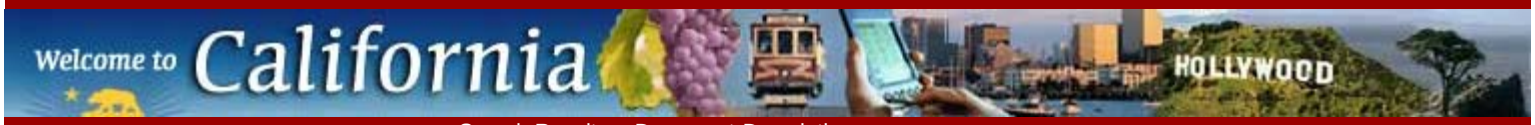
The NLIP improvements to the east levee of the Sacramento River in the vicinity of Natomas' Riverside Pumping Plant and Riverside Irrigation Canal will require retrofitting and relocation of these facilities. In addition, SAFCA improvement program calls for relocation of an existing water diversion on the Novak property along the east side of Powerline Road, construction of new irrigation facilities to service the Novak property and the Sacramento County Airport property west of Powerline Road, and construction of irrigation facilities to improve water delivery around Fisherman's Lake. Implementation Agreement 4 will address the issues associated with the above improvements.

2. Relocation of Unidentified Irrigation Facilities. The Parties understand that in order for work on the improvements included in the NLIP to proceed in 2009 other as yet unidentified Natomas irrigation canals and facilities may need to be relocated. If any unidentified irrigation facilities are required to be relocated, SAFCA hereby agrees to (a) meet and confer with Natomas on the design of the relocation work, (b) complete the relocation work as a funded component of the NLIP without disrupting water deliveries to landowners who rely on the affected canals, and (c) provide Natomas with easements, in a form acceptable to Natomas, that create the legal rights that Natomas will need to operate and maintain the new canals and facilities. Natomas will cooperate with SAFCA in facilitating such relocations, including reviewing plans and negotiating necessary agreements in a timely manner.

3. Credit to Offset the Cost of Water Deliveries. The Parties understand that SAFCA will provide the funding for designing and constructing all of the improvements covered by this MOU except the new Sankey Diversion and the Sankey Highline Canal. To the extent that SAFCA incurs costs for these facilities at the request of Natomas, these costs will be allocated to Natomas and SAFCA will receive credits from Natomas that SAFCA may use to offset the cost of any future water deliveries from Natomas to properties owned by SAFCA or Sacramento County. These credits will be reduced by any savings realized by SAFCA in avoiding the need to retrofit and relocate the Bennett and Northern Pumps.

IN WITNESS WHEREOF, the Parties hereto have caused this MOU to be duly executed as of the day and year first written above.

"NATOMAS"	**"SAFCA"**
NATOMAS CENTRAL MUTUAL WATER COMPANY, a California corporation	**SACRAMENTO AREA FLOOD CONTROL AGENCY**, a California joint powers authority
By _____ (name)	By _____ (name)
(Title)	(Title)
Date: _____	Date: _____
Approved as to form:	Approved as to form:
_____	_____
Natomas Counsel	SAFCA Counsel



Natomas Levee Improvement Program, Phase 3 Landslide Improvements Project

SCH Number: 2008072060

Document Type: NOD - Notice of Determination

Alternate Title: Natomas Levee Improvement Program (NLIP) Landside Improvements Project-Phase 3 Project Natomas Levee Improvement Program Landside Improvement Project Phase 3

Project Lead Agency: Sacramento Area Flood Control Agency

Project Description

SAA# 1600-2010-0009-R2 Reconstruction of Pumping Plant No. 2 - In 2006, Pumping Plant No. 2 was decommissioned and dismantled. As part of the Phase 3 Pumping Plants at North Drainage Canal Project, Pumping Plant No. 2 would be reconstructed at a site located farther away from the Sacramento River east levee (on the land side) than the location of the previos site. Additionally, an outfall for Pumping Plant No. 2 would be reconstructed at the same location as the existing outfall, at the bank of the Sacramento River. Modification of Pritchard Pumping Plant - Under the Phase 3 Pumping Plants at North Drainage Canal Project, the discharge pipes for the Natomas Central Mutual Water Company (NCMWC) pumping plants are required to cross the Sacramento River east levee above the new "200-year" design flood elecation. To accommodate this, the existing discharge pipes adn the existing pumps for the Pritchard Pumping Plant would need to be replaced to allow continued performance after the levee improvements and pipe-raising/replacement is finished.

Contact Information

Primary Contact:
Gary L. Hobgood
Department of Fish and Game
916-983-6920
1701 Nimbus Road Suite A
Sacramento, CA 95670

Project Location

County: Sacramento, Sutter
City: Sacramento
Region:
Cross Streets: Various
Latitude/Longitude: 38° 41' -" / 121° 36' -" Map
Parcel No:
Township:
Range:
Section:
Base:
Other Location Info:

Determinations

This is to advise that the ☐ Lead Agency ☒ Responsible Agency Department of Fish and Game has approved the project described above on 3/3/2010 and has made the following determinations regarding the project described above.

1. The project ☒ will ☐ will not have a significant effect on the environment.

2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.

☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.

3. Mitigation measures ☒ were ☐ were not made a condition of the approval of the project.

4. A Statement of Overriding Considerations ☒ was ☐ was not adopted for this project.

5. Findings ☒ were ☐ were not made pursuant to the provisions of CEQA.

Final EIR Available at: 1007 Seventh St. 7th Floor Sacramento,CA

Date Received: 3/26/2010

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EXHIBIT A

FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS FOR THE NATOMAS LEVEE IMPROVEMENT PROGRAM PHASE 3 LANDSIDE IMPROVEMENTS PROJECT

I. ENVIRONMENTAL REVIEW PROCESS

The Final Environmental Impact Report on the Natomas Levees Improvement Program ("NLIP") Phase 3 Landside Improvements Project (State Clearinghouse No. 2008072060) ("Final EIR"), prepared by the Sacramento Area Flood Control Agency ("SAFCA"), analyzes Phase 3 of the Landside Improvements Project ("Phase 3 Project"), which is proposed for construction during the years 2009 through 2010. The Phase 3 Project consists of improvements to a portion of the Natomas Basin's perimeter levee system in Sutter and Sacramento Counties, California, and associated landscape and irrigation/drainage infrastructure modifications, as proposed by the SAFCA. SAFCA has initiated this effort in cooperation with the California Department of Water Resources and the Central Valley Flood Protection Board ("the State"), and the U.S. Army Corps of Engineers ("USACE") Sacramento District, with the aim of incorporating the NLIP into the Natomas components of the Federally authorized American River Common Features Project.

The Final EIR ("FEIR") is a project-level EIR pursuant to Section 15161 of the State CEQA Guidelines (14 CCR § 15000 et seq.). The FEIR is tiered from, or incorporates by reference, information contained in the following documents:

- *Environmental Impact Report on Local Funding Mechanisms for Comprehensive Flood Control Improvements for the Sacramento Area*, State Clearinghouse No. 2006072098 ("Local Funding EIR") (SAFCA 2007a), which evaluated impacts expected to result from the Phase 1 Project at a project level and the NLIP at a program level;

- *Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Project*, State Clearinghouse No. 2007062016 ("Phase 2 EIR") (SAFCA 2007b), which evaluated impacts expected to result from the Phase 2 Project at a project level and the NLIP at a program level;

- *Environmental Impact Statement for 408 Permission and 404 Permit to Sacramento Area Flood Control Agency for the Natomas Levee Improvement Project* ("Phase 2 EIS") (USACE 2008), which evaluated impacts expected to result from the Phase 2 Project at a project level and the NLIP at a program level; and

- *Supplement to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Project—Phase 2 Project*, State Clearinghouse No. 2007062016 ("Phase 2 SEIR") (SAFCA 2009a), which evaluated impacts expected to result from the modification to the Phase 2 Project at a project level.

Consistent with CEQA Guidelines Section 15152, the project-level EIR incorporates by reference general discussions from the above-referenced documents as appropriate, and focuses on the significant effects on the environment that were not adequately addressed in those documents.

The overall purpose of the NLIP is to bring the entire 42-mile Natomas Basin perimeter levee system into compliance with applicable Federal and state standards for levees protecting urban areas. SAFCA's project objectives adopted in connection with the NLIP are: (1) provide at least a 100-year level of flood risk reduction to the Natomas Basin as quickly as possible, (2) provide "200-year" flood risk reduction to the Basin over time, and (3) avoid any substantial increase in expected annual damages as new development occurs in the Basin. The first two project objectives would reduce the residual risk of flooding sufficiently to meet the minimum requirements of Federal and state law for urban areas like the Natomas Basin. The third project objective is a long-term objective of SAFCA's.

Additional project objectives that have informed SAFCA's project design are to:

(1) use flood damage reduction projects in the vicinity of the Sacramento International Airport to facilitate management of Airport lands in accordance with the Airport's Wildlife Hazard Management Plan (SCAS 2007); and

(2) use flood damage reduction projects to increase the extent and connectivity of the lands in the Natomas Basin being managed to provide habitat for giant garter snake, Swainson's hawk, and other special-status species.

The Landside Improvements Project, which is a component of the NLIP, consists of four phases. The Phase 3 Project is one of the four project phases. The Phase 3 Project focuses on addressing underseepage, riverbank erosion, encroachment, and levee height deficiencies along 4.5 miles of the Sacramento River east levee, 3.2 miles of the Pleasant Grove Creek Canal ("PGCC") west levee, and 6.2 miles of the Natomas East Main Drainage Canal ("NEMDC") west levee.

On July 18, 2008, USACE and SAFCA issued a Notice of Intent ("NOI") and Notice of Preparation ("NOP"), respectively, indicating that an EIS/EIR would be prepared for the project. The NOP was filed with the State Clearinghouse and circulated to governmental agencies and the public for 30 days for review and comment. Comment letters were received. The DEIS/DEIR was published on February 13, 2009, for a 52-day public review period that ended on April 6, 2009. During that time, the DEIS/DEIR was reviewed by various governmental agencies, as well as by interested individuals and organizations. In addition, members of the public were invited by formal public notice to submit comments on the DEIS/DEIR in testimony at a public hearing held for that purpose on March 19, 2009. Additional public comments were received at this hearing.

USACE will prepare a separate Final Environmental Impact Statement (FEIS) in accordance with the requirements of the National Environmental Policy Act (NEPA). USACE is the lead Federal agency for complying with NEPA. The FEIS will constitute a reprint of the entire Draft EIS/EIR, and will include comment letters, responses to comments, and any text changes/clarifications/modifications.

The FEIR includes the DEIS/DEIR published in February 2009, as well as comments on the DEIS/DEIR, responses to those comments, and revisions to the DEIS/DEIR. The FEIR, published in May 2009, was presented to the SAFCA Board of Directors ("Board") and the

Board has reviewed the FEIR. The analysis and conclusions contained in the FEIR reflect the independent judgment of SAFCA. Based on all of the information and evidence in the record, the Board hereby makes the following Findings with respect to the Phase 3 Project.

II. SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS AND DISPOSITION OF RELATED MITIGATION MEASURES

The FEIR identifies the following significant and unavoidable adverse impacts associated with the Phase 3 Project and related mitigation measures. It is hereby determined that these significant and unavoidable adverse impacts are acceptable for the reasons specified in Section VI, below.

A. Impact 4.1-1. Conversion of Important Farmland to Nonagricultural Uses

The Phase 3 Project flood damage reduction facilities, habitat compensation land, and soil borrowing would convert Important Farmland to nonagricultural uses. This impact would be significant. Implementation of Mitigation Measure 4.1-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize impacts on Important Farmland, but no new farmland would be made available and the productivity of existing farmland would not be improved. Although in the long term there would be a less-than-significant impact on conversion of Important Farmland for borrow sites, temporary conversion of Important Farmland for borrow sites is considered a significant and unavoidable impact in the short term. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.1-a: Minimize Important Farmland Conversion to the Extent Practicable and Feasible

SAFCA shall implement the measures listed below with regard to Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to minimize impacts on these lands.

(a) Borrow sites shall be configured to minimize the fragmentation of lands that are to remain in agricultural use. Contiguous parcels of agricultural land of sufficient size to support their efficient use for continued agricultural production shall be retained to the extent practicable and feasible.

(b) To the extent practicable and feasible, when expanding the footprint of a flood damage reduction facility (e.g., levee or berm) onto agricultural land, the most productive topsoil from the construction footprint shall be salvaged and redistributed to less-productive agricultural lands in the vicinity of the construction area that could benefit from the introduction of good-quality soil. By agreement between the implementing agencies or landowners of affected properties and the recipient(s) of the topsoil, the recipient(s) shall be required to use the topsoil for agricultural purposes. SAFCA shall implement all terms and conditions of agreements.

(c) During project construction, use of utilities that are needed for agricultural purposes (including wells, pipelines, and power lines) and of agricultural drainage systems shall be minimized so that agricultural uses are not substantially disrupted.

(d) Disturbance of agricultural land and agricultural operations during construction shall be minimized by locating construction staging areas on sites that are fallow, that are already developed or disturbed, or that are to be discontinued for use as agricultural land, and by using existing roads to access construction areas to the extent possible.

(e) To the extent feasible, lands acquired for flood damage reduction purposes shall also be used as mitigation land for NBHCP programs so that agricultural land conversion is minimized.

B. Impact 4.1-b. Conflict with Lands under Williamson Act Contracts

Levee construction and conversion of agricultural land to managed habitat would require termination of some Williamson Act contracts and would affect properties in Agricultural Preserves. This impact would be significant. Implementation of Mitigation Measure 4.1-b, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. Implementation of this mitigation measure would reduce the impacts from loss of Williamson Act–contracted lands, but not to a less-than-significant level. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.1-b: **Minimize Impacts on Agricultural Preserve Land and Williamson Act–Contracted Land; Comply with Government Code Sections 51290–51293; and Coordinate with Landowners and Agricultural Operators**

To reduce impacts on Agricultural Preserve land and on lands under Williamson Act contracts, SAFCA shall implement the measures described below.

(a) SAFCA shall comply with California Government Code Sections 51290–51295 with regard to acquisition of Williamson Act contracted lands as follows:

- *The policy of the state, consistent with the purpose of the Williamson Act to preserve and protect agricultural land, is to avoid, whenever practicable, locating public improvements and any public utilities improvements in agricultural preserves. If it is necessary to locate within a preserve, it shall be on land that is not under contract (Government Code Section 51290[a][b]). More specifically, the basic requirements are:*

- *Whenever it appears that land within a preserve or under contract may be required for a public improvement, the public agency or person shall notify the DOC and the city or county responsible for administering the preserve (Government Code Section 51291[b]).*

- *Within 30 days of being notified, DOC and the city or county shall forward comments, which shall be considered by the public agency or person (Section 51291[b]).*

- *The contract shall be terminated when land is acquired by eminent domain or in lieu of eminent domain (Government Code Section 51295).*
- *DOC and the city or county shall be notified before project completion of any proposed substantial changes to the public improvement (Government Code Section 51291[d]).*
- *DOC shall be notified within 10 working days upon completion of the acquisition (Section 51291[c]).*
- *If, after acquisition, the acquiring public agency determines that the property will not be used for the proposed public improvement, before returning the land to private ownership, DOC and the city or county administering the involved preserve shall be notified. The land shall be reenrolled in a new contract or encumbered by an enforceable restriction at least as restrictive as that provided by the Williamson Act (Government Code Section 51295).*

(b) SAFCA shall coordinate with landowners and agricultural operators to sustain existing agricultural operations, at the landowners' discretion, within the project area until the individual agricultural parcels are needed for project construction.

C. Impact 4.2-c. Potential to Physically Divide or Disrupt an Established Community

During construction, intermittent road closures and detours affecting Garden Highway would be a disruption for residents and business operators, and construction of a cutoff wall would temporarily prevent landside access to the Sacramento County public boat launch facility. This impact would be significant. Implementation of Mitigation Measure 4.2-c, summarized and set forth in part below, and set for in part in Sections II.I and III.T, below, would reduce this impact, but not to a less-than-significant level. Mitigation Measure 4.2-c is hereby adopted and incorporated into the Phase 3 Project. Residents and businesses would still experience temporary disruption due to road closures, detours, construction, and boat launch facility closure. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.2-c: Notify Residents and Businesses of Project Construction and Road Closure Schedule; Comply with the Garden Highway Settlement Agreement; and Implement Mitigation Measure 4.12-a, "Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips," and Mitigation Measure 4.12-c, "Notify Emergency Service Providers about Project Construction and Maintain Emergency Access or Coordinate Detours with Providers"

SAFCA and its primary contractors for engineering design and construction shall implement Mitigation Measures 4.12-a, "Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips," and 4.12-c, "Notify Emergency Service Providers about Project Construction and Maintain Emergency Access or Coordinate Detours with Providers,"

contained in Section 4.12, "Transportation and Circulation." Additionally, the following measures shall be implemented:

a) SAFCA shall provide residents and business owners located adjacent to the construction areas with information regarding construction activities including contact information and complaint procedures, and a construction schedule to be posted on the SAFCA Web site. Information shall include road closures and detour information. The schedule shall be updated on a monthly basis.

b) SAFCA shall comply with the provisions of the Garden Highway Settlement Agreement including provisions regarding complaint procedures, power pole plans, encroachment removal plans, and construction schedule.

c) SAFCA shall provide notice as feasible for emergency construction or remedial construction.

D. Impact 4.8-a. Loss of Woodland Habitats

The Phase 3 Project would require the removal of woodland habitat, but would also offset this loss by preserving and creating woodlands. However, there would be a short-term loss of woodland habitat as the replacement plantings mature. This would be a significant impact. If habitat creation and preservation is not effectively implemented, a long-term adverse effect would occur. This would be a significant impact. Implementation of Mitigation Measure 4.8-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce long-term impacts to a less-than-significant level, but the short-term impact would remain significant and unavoidable.

Mitigation Measure 4.8-a: **Minimize Effects on Woodland Habitat, Implement all Woodland Habitat Conservation Components and Management Agreements, Compensate for Loss of Habitat, and Comply with the DFG Section 1602 Permit Process**

To reduce impacts on the loss of woodland habitat, SAFCA shall implement the measures described below:

- *Native woodland areas shall be identified and the primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of such areas to the extent feasible. Temporary fencing shall be used during construction to prevent disturbance of native trees that are located adjacent to construction areas but can be avoided.*

- *SAFCA shall coordinate with USFWS, DFG, and SCAS (if on Airport property) to ensure that all woodland habitat conservation components of the NLIP are created and managed in accordance with the Phase 3 Project description and as described in Section 2.3.3, "Habitat Conservation Components," of the Phase 3 DEIS/DEIR. SAFCA shall prepare a project-specific MMP and programmatic LTMP to ensure the creation and long-term management of these components (see Section 2.3.3.5, "Long-Term Management of Habitat Components")*

before construction commences. SAFCA shall enter into agreements with the appropriate local entity responsible for long-term management of these created woodland habitats and shall coordinate with USFWS and DFG to ensure that performance standards and long-term management goals that are required by the regulatory agencies with jurisdiction over these resources will be specifically detailed and outlined in the LTMP and MMP. All performance standards and long-term management goals will be in full compliance with ESA and CESA. SAFCA shall implement all terms and conditions of the agreements.

- *A Section 1602 streambed alteration agreement from DFG shall be obtained before any trees within a stream zone under DFG jurisdiction are removed, and all terms and conditions of the agreement shall be implemented by SAFCA.*

E. Impact 4.9-f. Impacts on Swainson's Hawk and Other Special-Status Birds

Potential adverse impacts on Swainson's Hawk, white-tailed kite, Cooper's hawk, northern harrier, and other special-status birds include loss of suitable foraging and nesting habitat and disturbance of nesting pairs during project construction. The impact to foraging habitat, nesting habitat, and nesting behavior would be potentially significant. Implementation of Mitigation Measure 4.9-f, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, as well as Mitigation Measure 4.8-a (adopted and incorporated into the Phase 3 Project and set forth in Section II.D, above), would reduce this impact, but not to a less-than-significant level. The creation and preservation of nesting and foraging habitat would reduce long-term impacts to a less-than-significant level. However, in the short-term, this impact would remain significant and unavoidable because replacement plantings would likely require a minimum of 10 to 15 years before providing important habitat components such as structure and shade.

Mitigation Measure 4.9-f: **Minimize Potential Impacts on Swainson's Hawk and Other Special-Status Birds Foraging and Nesting Habitat, Monitor Active Nests during Construction, Implement All Upland and Agricultural Habitat Conservation Components and Management Agreements to Ensure Compensation for Loss of Quantity and Quality of Foraging Habitat, Obtain Incidental Take Authorization, Implement Mitigation Measure 4.8-a, "Minimize Effects on Woodland Habitat, Implement all Woodland Habitat Conservation Components and Management Agreements, Compensate for Loss of Habitat, and Comply with the DFG Section 1602 Permit Process**

SAFCA and its primary contractors for engineering design and construction shall ensure that the following measures are implemented to avoid, minimize, and compensate for potential project effects on Swainson's hawks and other special-status birds:

- *The primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of potential nesting habitat for special-status birds through the following activities:*

- *The biologist shall conduct preconstruction surveys to identify active special-status bird nests near construction areas.*

- *Surveys for nesting birds shall be conducted before project activities are initiated during the nesting season (March 1– September 15). Surveys shall be conducted in accordance with standardized protocols and NBHCP requirements.*

- *Removal of potential nesting habitat shall be conducted during the non-nesting season, to the extent feasible and practicable, to minimize the potential for loss of active nests.*

- *If an active nest is found, the biologist shall determine an appropriate buffer that minimizes potential for disturbance of the nest, in coordination with DFG. No project activities shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active or the birds are not dependent on it. Monitoring shall be conducted during construction and by a qualified biologist to ensure that project activity does not result in detectable adverse effects on the nesting pair or their young. The size of the buffer may vary, depending on the nest location, nest stage, construction activity, and monitoring results. If implementation of the buffer becomes infeasible or construction activities result in an unanticipated nest disturbance, DFG shall be consulted to determine the appropriate course of action.*

- *The primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that staging areas and access routes are designed to minimize disturbance of known Swainson's hawk nesting territories through the following activities:*

  - *The biologist shall conduct preconstruction surveys to identify active nests within.5 mile of construction areas, in accordance with DFG guidelines. Surveys shall be conducted in accordance with NBHCP requirements and* Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley *(Swainson's Hawk Technical Advisory Committee 2000).*

  - *If an active nest is found, an appropriate buffer that minimizes the potential for nest disturbance shall be determined by the biologist, in coordination with DFG. No project activities shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active or the birds are not dependent on it. Monitoring shall be conducted during construction and by a qualified biologist to determine whether project activity results in detectable adverse effects on the nesting pair or their young. The size of the buffer may vary, depending on the nest location, nest stage, construction activity, and monitoring results. If implementation of the buffer becomes infeasible or construction activities result in an unanticipated nest disturbance, DFG shall be consulted to determine the appropriate course of action.*

- *SAFCA shall coordinate with USFWS, DFG, and SCAS (if on Airport property) to ensure that woodland, upland and agricultural habitat conservation components of the NLIP are created and managed as described in Section 2.3.3, "Habitat Conservation Components," in the Phase 3 DEIS/DEIR. SAFCA shall prepare a project specific MMP and programmatic*

LTMP to ensure the creation and long-term management of these components (see Section 2.3.3.6, "Long Term Management of Habitat Components") before construction commences. SAFCA shall enter into agreements with the appropriate local entity responsible for long-term management of these created Swainson's hawk habitats and shall coordinate with USFWS and DFG to ensure that performance standards and long-term management goals that are required by the regulatory agencies with jurisdiction over these resources will be specifically detailed and outline in the LTMP and MMP. All performance standards and long-term management goals will be in full compliance with ESA and CESA. SAFCA shall implement all terms and conditions of the management agreements.

- *Authorization for take of Swainson's hawk under CESA shall be obtained. All measures subsequently adopted through the permitting process shall be implemented.*

F. Impact 4.10-c: Potential Damage or Disturbance to Known Prehistoric Resources from Ground-Disturbance or Other Construction-Related Activities

Ground-disturbing work associated with the levee improvements could affect several prehistoric sites by disturbing interred human skeletal remains and associated grave goods. This impact is potentially significant. Implementation of Mitigation Measure 4.10-c, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. Because of the complex and stratified geomorphology of the area as well as the magnitude of the construction, implementation of all mitigation may not fully reduce impacts to a less-than-significant level. For example, buried components may not be susceptible to adequate documentation prior to intrusive work. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.10-c: **Avoid Ground Disturbance Near Eligible and Listed Resources to the Extent Feasible, Prepare a Finding of Effect, and Resolve Any Adverse Effects through Preparation of an HPTP**

Under either the Proposed Action or the Levee Raise-in-Place Alternative, SAFCA shall implement the following measures.

- *Complete an evaluation of identified resources, and determine the effect of each phase of work on all eligible or listed resources in accordance with Stipulation IV(A) of the PA.*

- *Consult with USACE, the SHPO, and other consulting parties such as Native American individuals and organizations, to develop appropriate treatment or mitigation in an HPTP, per Stipulation V(A) of the PA if the project would result in adverse effects on eligible resources.*

- *Document the site and avoid further effects by protecting the resource through capping per management under an HPTP or other avoidance measures where feasible. Where physical impacts cannot be avoided and such physical impacts could damage the data these sites contain, including mortuary components, further mitigation may required. Such mitigation may consist of data recovery excavations to retrieve those values and mortuary assemblages that contain significance for archaeology after consultation with and the agreement of the Native American most likely descendent (MLD) tribe.*

- *Monitor all construction in the vicinity of documented resources, as required under the Construction Monitoring and Inadvertent Discovery Plan.*

G. Impact 4.10-d. Potential Damage to or Destruction of Previously Undiscovered Cultural Resources from Ground-Disturbance or Other Construction-Related Activities

Excavation, grading, and other ground-disturbing activities could encounter and damage previously unidentified cultural resources, and it may not be possible to alter the project design or configuration of borrow sites to avoid these resources when they are ultimately identified. This impact is potentially significant. Implementation of Mitigation Measure 4.10-d, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. Despite all of the precautions described in Mitigation Measure 4.10-d, it is still possible that resources will be disturbed and adversely affected before they can be discovered and protected. Furthermore, design constraints may preclude the ability of SAFCA and USACE to avoid impacts on resources discovered during inventory efforts. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.10-d: **Train Construction Workers Before Construction, Monitor Construction Activities, Stop Potentially Damaging Activities, Evaluate Discovery(ies), Resolve Adverse Effects on Eligible Resources, if Encountered, and Conduct Additional Backhoe and Canine Forensic Investigations as Appropriate**

Under either the Proposed Action or the Levee Raise-in-Place Alternative, SAFCA shall implement the following measures.

- *SAFCA shall complete surveys to identify cultural resources in the Phase 3 Project footprint, as identified in the 2007 Landside EIR (p. 3.8-31) at the program level.*

- *Mitigation Measure 3.4-d from the supplemental environmental impact report (SEIR) prepared for the Phase 2 Project is copied below and shall be implemented, as appropriate within the footprint of the Proposed Action (SAFCA 2008: 3.4-10).*

Mitigation Measure 3.4-d: **Conduct Additional Backhoe and Canine Forensic Investigations As Appropriate**

To increase the data set for identifying buried sites under the existing levee, SAFCA shall recommend that the following additional mitigation measures be adopted by USACE during Section 106 consultation:

- *Additional inventory should be conducted at appropriate intervals along the Sacramento River east levee for the Phase 2 Project, using a backhoe excavator, to increase the sample of information at depths below six feet, which cannot be reached with conventional shovel test methods.*

- *Where this process or additional inventory efforts reveal other resources, SAFCA recommends the use of canine forensic investigations as a way of*

identifying interred human remains with minimal disturbance, and for further refinement of and understanding of the constituents of identified resources.

- *Before construction begins, a qualified professional archaeologist retained by SAFCA shall give a presentation and training session to all construction personnel so that they can assist with identification of undiscovered cultural resource materials and avoid them where possible.*

- *A qualified archaeologist and a Native American monitor where appropriate, retained by SAFCA, shall monitor all ground-disturbing construction activities along the Sacramento River east levee and at other locations determined by the archaeologist to be sensitive for subsurface cultural resource deposits. If a previously unidentified archaeological resource is uncovered during construction, construction activities shall be halted in the vicinity of the find and the construction contractor, SAFCA, USACE, and other appropriate parties shall be notified regarding the discovery. Where construction would consist of cutoff walls excavated in a bentonite slurry, SAFCA and USACE anticipate that it will not be possible to identify the precise location of any materials found in spoils or at soil mixing stations, thus construction cannot stop during excavation of cutoff walls if resources are discovered in spoils.*

- *SAFCA shall then consult with USACE and the SHPO to determine the eligibility of the resource. If SAFCA and USACE, in consultation with the SHPO, concur that the resource is eligible and the project may result in adverse effects on the resource, SAFCA shall prepare and implement an HPTP as required under the PA, Stipulation V(A). The HPTP shall be prepared in consultation with USACE, the SHPO, and other appropriate consulting parties such as Native American individuals or organizations.*

- *Work may only resume when either all necessary treatment has been performed under the HPTP, or construction in the vicinity will not result in adverse effects, and that work does not encroach within 30 meters of the known boundaries of the resource, or the boundaries designated by the SHPO, per the PA, Stipulation V(B)(2). All treatment stipulated in the HPTP shall be performed by SAFCA, in consultation with USACE.*

H. Impact 4.10-e. Potential Discovery of Human Remains during Construction

The construction methods and procedures involved in the levee improvements preclude complete advance investigation for human remains, so previously unknown buried human remains may be unearthed, damaged, or destroyed during project construction and excavation of borrow. This impact is potentially significant. Implementation of Mitigation Measure 4.10-e, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. Ground-disturbing work could still disinter and damage human remains. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.10-e: **Stop Work Within An Appropriate Radius Around the Find, Notify the Applicable County Coroner and Most Likely Descendant, and Treat Remains in Accordance with Measures Stipulated in an HPTP Developed in Consultation between USACE, SAFCA, and the SHPO**

If human remains are uncovered during ground-disturbing activities, under either the Proposed Action or the Levee Raise-in-Place Alternative, all ground-disturbing activities shall cease within the vicinity of the find, if known. If the discovery occurs in spoils removed from construction of cutoff walls, the remains will be treated in accordance with state law. However, because cutoff walls are constructed at great depth within a slurry of soil and bentonite, SAFCA and USACE anticipate that it will not be possible to pinpoint the location of human remains that may be disinterred during construction of these features, it will not be feasible or useful to stop construction. Discovered remains removed from cutoff wall spoils will be treated per state law, as follows. SAFCA's archaeological monitors and/or the contractor shall notify the relevant county coroner and a SAFCA-retained senior archaeologist skilled in osteological analysis to determine the nature of the remains. If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC will designate an MLD who may decide how to reinter the remains with appropriate dignity in an appropriate location.

Prehistoric remains are usually found in the context of an archaeological site. The treatment of any associated site shall be resolved per Mitigation Measure 4.10-d, in consultation with the MLD, as required under the PA. It is unlikely, but also possible, that ground-disturbing work may disinter human remains associated with an historic burial, not subject to the jurisdiction of the NAHC. Such a resource shall be treated as an archaeological discovery per Mitigation Measure 4.10-d.

I. Impact 4.12-a. Temporary Increase in Traffic on Local Roadways

Implementation of the Phase 3 Project would result in a substantial but temporary increase in traffic on local roadways associated with construction activities, particularly trucks hauling borrow material. Additionally, construction would require temporary road closures that would increase traffic levels. This impact would be significant. Implementation of Mitigation Measure 4.12-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. Even with implementation of all feasible traffic mitigation, it may not be possible to avoid significant temporary increases in traffic levels. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.12-a: **Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips**

Before the start of construction in each construction season, SAFCA and its primary contractors for engineering and construction shall develop a coordinated construction traffic safety and control plan to minimize the simultaneous use of roadways by different construction contractors for material hauling and equipment delivery to the extent feasible and to avoid and minimize potential traffic hazards on local roadways during construction. Upon selection of borrow sites within the Elkhorn Borrow Area, the traffic safety and control plan shall reflect affected roadways. Items (a) through (e) of this mitigation measure, as listed below shall be integrated as terms of the construction contracts.

(a) *The plan shall outline phasing of activities and the use of multiple routes to and from off-site locations to minimize the daily amount of traffic on individual roadways. SAFCA shall ensure that the construction contractors enforce the plans throughout the construction periods.*

(b) *The construction contractors shall develop traffic safety and control plans for the local roadways that would be affected by construction traffic. Before the initiation of construction-related activity involving high volumes of traffic, the plan shall be submitted for review by Caltrans and the agencies of the local jurisdictions (Sutter County, Sacramento County, and/or City of Sacramento) having responsibility for roadway safety at and between project sites. The plan shall call for the following elements:*

- *posting warnings about the potential presence of slow-moving vehicles;*
- *using traffic control personnel when appropriate; and*
- *placing and maintaining barriers and installing traffic control devices necessary for safety, as specified in Caltrans's Manual of Traffic Controls for Construction and Maintenance Works Zones and in accordance with city/county requirements (Caltrans 1996).*

The contractor shall train construction personnel in appropriate safety measures as described in the plan and shall implement the plan. The plan shall include the prescribed locations for staging equipment and parking trucks and vehicles. Provisions shall be made for overnight parking of haul trucks to avoid causing traffic or circulation congestion.

(c) *All operations shall limit and expeditiously remove, as necessary, the accumulation of project-generated mud or dirt from adjacent public streets at least once every 24 hours if substantial volumes of soil have been carried onto adjacent paved public roadways during project construction.*

(d) *Construction of project features along the Sacramento River east levee shall be accommodated through the creation of temporary haul roads along the landside of the adjacent levee and berm footprint. Garden Highway shall not be used for earthen materials hauling activities.*

(e) *A Transportation Management Plan shall be prepared and submitted to Caltrans District 3 to cover any points of access from the state highway system for haul trucks and other construction equipment.*

(f) *Before the start of the first construction season, SAFCA shall coordinate with Sacramento and Sutter Counties and the City of Sacramento to address maintenance and repair of affected roadways resulting from increased truck traffic.*

(g) *Before project construction begins, SAFCA shall provide notification of project construction to all appropriate emergency service providers in Sutter County, Sacramento County, and/or the City of Sacramento and shall coordinate with providers throughout the construction period to ensure that emergency access through construction areas is maintained.*

(h) Before the start of construction, SAFCA and its primary contractors shall coordinate with Sacramento and Sutter Counties regarding any closures of Garden Highway.

J. Impact 4.13-a. Temporary Emissions of ROG, NO_x, and PM_{10} during Construction

The Phase 3 Project would result in temporary construction-related emissions of reactive organic gases, nitrogen oxides, and particulate matter that could expose nearby sensitive receptors to substantial pollutant concentrations and/or substantially contribute a violation of an air quality standard. This impact would be significant. Implementation of Mitigation Measure 4.13-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. Phase 3 Project-generated construction-related emissions of ROG and PM_{10} in Sutter County would not be mitigated to levels less than the Feather River Air Quality Management District's (FRAQMD's) significance thresholds, and project-generated construction-related emissions of PM_{10} in Sacramento County could still substantially contribute to a violation of the ambient air quality standard for PM_{10}. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.13-a: **Implement Applicable District-Recommended Control Measures to Minimize Temporary Emissions of ROG, NO_X, and PM_{10} during Construction**

SAFCA shall implement mitigation measures as recommended by FRAQMD or SMAQMD, as applicable, and shall comply with all applicable rules and regulations of FRAQMD or SMAQMD, as described below.

Construction in Sutter County (FRAQMD)

For portions of the project occurring in Sutter County, FRAQMD's Indirect Source Review Guidelines and online CEQA guidance provide mitigation measures for reducing short-term air quality impacts. As recommended by FRAQMD, SAFCA shall ensure that the following mitigation measures are implemented during all project construction activities to the extent practicable. In addition, construction of the proposed levee improvements are required to comply with all applicable FRAQMD rules and regulations, in particular Rule 3.0 (Visible Emissions), Rule 3.16 (Fugitive Dust Emissions), and Rule 3.15 (Architectural Coatings).

1. SAFCA shall implement a Fugitive Dust Control Plan that includes the following measures:

- *All earthmoving operations should be suspended when winds exceed 20 miles per hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.*

- *Construction sites shall be watered as directed by the Sutter County Department of Public Works or FRAQMD and as necessary to prevent fugitive dust violations.*

- *An operational water truck shall be on-site at all times. Apply water to control dust as needed to prevent visible emissions violations and off-site dust impacts.*

- *On-site dirt piles or other stockpiled particulate matter shall be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind blown dust emissions. Incorporate the use of approved nontoxic soil stabilizers to all inactive construction areas according to manufacturers' specifications.*

- *All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free-fall distance and fugitive dust emissions.*

- *Apply approved chemical soil stabilizers to all inactive construction areas (previously graded areas that remain inactive for 96 hours), including unpaved roads and employee/equipment parking areas, according to the manufacturers' specifications.*

- *To prevent track-out, wheel washers shall be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed before each trip. Alternatively, a gravel bed or rumble strip may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.*

- *Paved streets shall be swept frequently (at least once per day by water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.*

- *Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Sutter County Department of Public Works and/or Caltrans and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 miles per hour on unpaved roads.*

- *Reduce traffic speeds on all unpaved surfaces to 15 miles per hour, where feasible, and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, on-site enforcement, and signage. Where restricting vehicle speeds on unpaved surfaces to 15 miles per hour would make timely completion of the project infeasible, SAFCA shall cooperate with FRAQMD to implement alternative dust control measures that would be at least as effective in reducing fugitive dust emissions. Such measures may include increased frequency in applying water to the unpaved roads in the vicinity of sensitive receptors and reducing speeds in the vicinity of sensitive receptors.*

- *Reestablish ground cover on the construction site as soon as possible, through seeding and watering.*

- *Open burning is yet another source of fugitive gas and particulate emissions, and it shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, etc.) may be conducted at the project site. Vegetative wastes should be chipped or delivered to*

waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials off-site for disposal by open burning.

2. *Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions Limitations (40% opacity or Ringelmann 2.0). Operators of vehicles and equipment found to exceed opacity limits shall take action to repair the equipment within 72 hours or remove the equipment from service. Failure to comply may result in a notice of violation.*

3. *SAFCA shall be responsible for ensuring that all construction equipment is properly tuned and maintained before and during on-site operation.*

4. *Minimize idling time to 10 minutes, to conserve fuel and minimize emissions.*

5. *Use existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel-powered generators.*

6. *Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the state or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with ARB or FRAQMD to determine registration and permitting requirements before equipment is operated at the site.*

7. *SAFCA shall assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, and emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower [hp] and greater) that will be used an aggregate of 40 or more hours for the construction project and apply the following mitigation measure:*

   - *Reduce NO_X emissions from off-road diesel-powered equipment: SAFCA shall provide a plan for approval by FRAQMD demonstrating that the heavy-duty (equal to or greater than 50 hp) off-road equipment to be used in the construction project, including owned, leased and subcontractor vehicles, shall achieve a project wide fleet-average 20% NO_X reduction and 45% particulate reduction[1] compared to the most recent ARB fleet average at time of construction.*

Implementing the FRAQMD-recommended measures is expected to achieve at least a 75% reduction in fugitive dust emissions, 5% reduction in ROG emissions from construction equipment, 20% reduction in NO_X emissions from construction equipment, and 45% reduction in PM_{10} emissions from construction equipment (SMAQMD 2004). The resulting maximum average daily construction-generated emissions in Sutter County, with mitigation incorporated, are conservatively calculated to be as high as 75 lb/day of ROG, 413 lb/day of NO_X, and 971 lb/day

[1] *Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology (Carl Moyer Guidelines), and after-treatment products; voluntary off-site mitigation project; providing funds for air district off-site mitigation projects; and/or other options as they become available. FRAQMD should be contacted to discuss alternative measures.*

of PM_{10} for the Proposed Action, and 41 lb/day of ROG, 227 lb/day of NO_X, and 534 lb/day of PM_{10} for the Levee Raise-in-Place Alternative.

SAFCA shall implement the following measure to further mitigate NO_X emissions through off-site reductions:

8. *SAFCA shall enter into a voluntary emissions reduction agreement with the FRAQMD to mitigate the portion of construction-generated emissions of NO_X that exceeds EPA's applicable threshold for general conformity purposes. The calculation of the fee shall be determined in coordination with the FRAQMD and paid prior to the occurrence of any construction-related activities within areas under the jurisdiction of the FRAQMD.*

Construction in Sacramento County (SMAQMD)

For portions of the project occurring in Sacramento County, SMAQMD's Guide to Air Quality Assessment in Sacramento County (SMAQMD 2004) provides mitigation measures for reducing short-term air quality impacts. As recommended by SMAQMD, SAFCA shall ensure that the following mitigation measures are implemented during all project construction activities to the extent practicable and feasible.

- *SAFCA shall submit a construction emissions dust control plan(s) to SMAQMD that reduces fugitive dust emissions by at least 85% (or shall provide calculations based on SMAQMD-approved methodologies showing that emissions would be reduced to less than 100 tons per year assuming a conservative reduction of 75% with typical mitigation). All grading operations shall be suspended when fugitive dust levels exceed levels specified by SMAQMD rules. SAFCA and its primary construction contractors shall ensure that dust is not causing a nuisance beyond the property line of the construction site.*

- *SAFCA shall develop a plan, in consultation with SMAQMD, demonstrating that the heavy-duty (>50 hp), off-road vehicles to be used in the construction project (including owned, leased, and subcontractor vehicles) shall achieve a project-wide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent ARB fleet average at the time of construction.*[2]

- *A comprehensive inventory of all off-road construction equipment equal to or greater than 50 hp that will be used for an aggregate of 40 or more hours during any portion of project construction shall be submitted to SMAQMD. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction operations occur. At least 48 hours before heavy-duty off-road equipment is used, SAFCA shall provide SMAQMD with the anticipated construction timeline, including the start date, and the name and phone number of the contractor's project manager and on-site foreman.*

[2] *Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, particulate-matter traps, engine retrofit technology, after-treatment products, and/or such other options as become available.*

- *Emissions from off-road, diesel-powered equipment used on the project site shall not exceed 40% opacity for more than 3 minutes in any 1 hour. Any equipment found to exceed 40% opacity (or Ringelmann 2.0) shall be repaired immediately, and SMAQMD shall be notified of noncompliant equipment within 48 hours of identification. A visual survey of all in-operation equipment shall be made at least weekly. A monthly summary of visual survey results shall be submitted to SMAQMD throughout the construction period, except that the monthly summary shall not be required for any 30-day period in which no construction operations occur. The monthly summary shall include the quantity and type of vehicles surveyed, as well as the dates of each survey. SMAQMD and/or other officials may conduct periodic site inspections to determine compliance.*

- *SAFCA shall pay SMAQMD an off-site mitigation fee for implementation of any proposed alternatives for the purpose of reducing impacts to a less-than-significant level. Based on the construction information presented in Appendix H and the emissions calculations shown in Appendix E of this EIS/EIR, if the Proposed Action is implemented, the specific fee amount to offset NO_X emissions for elements of the 2009 construction phase that would occur in Sacramento County would be $264,139 (see Appendix E of this EIS/EIR for fee calculations) plus a 5% administrative fee of $13,207. Thus, the total mitigation fee for project-related work conducted in Sacramento County during the 2009 construction season is currently estimated to be $277,346 for the Proposed Action. Calculation of fees associated with subsequent improvement plans/project phases shall be conducted at the time of project approval. The applicable fee rate shall be determined and the total fee shall be calculated based on the fee rate in effect at the time that subsequent environmental documents are prepared. The fee for subsequent construction projects shall be remitted to SMAQMD before groundbreaking.*

SAFCA shall pay into SMAQMD's off-site construction mitigation fund to further mitigate construction-generated emissions of NO_X that exceed SMAQMD's daily emission threshold of 85 lb/day. The calculation of daily NO_X emissions is based on the cost to reduce 1 ton of NO_X at the time when the document is prepared (currently $16,000 per ton). The determination of the final mitigation fee shall be conducted in coordination with SMAQMD before any demolition or ground disturbance occurs for any project phase.

Calculation of and payment of the fee for all subsequent project phases shall also be included in the CEQA MMRP for the project.

All Project Construction

SAFCA shall implement the following additional measures to reduce construction emissions of PM_{10} comprising fugitive dust and mobile-exhaust and ozone precursors throughout the project area:

- *Open burning of removed vegetation shall be prohibited. Vegetation material shall be chipped on-site or delivered to waste-to-energy facilities to the extent feasible.*

- *An operational water truck shall be on-site at all times. Water shall be applied to control dust as needed to prevent dust impacts off-site. Unpaved areas subject to vehicle traffic, including employee parking areas and equipment staging areas, shall be stabilized by being kept wet, treated with a chemical dust suppressant or soil binders, or covered.*

- *The track-out of bulk material onto public paved roadways as a result of operations, or erosion, shall be minimized by the use of track-out and erosion control, minimization, and preventive measures, and removed within 1 hour from adjacent streets such material anytime track-out extends for a cumulative distance of greater than 50 feet onto any paved public road during active operations. All visible roadway dust tracked out upon public paved roadways as a result of active operations shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. Wet sweeping or a HEPA filter equipped vacuum device shall be used for roadway dust removal.*

- *Low-sulfur fuel shall be used for stationary construction equipment.*

- *Existing power sources or clean fuel generators shall be used rather than temporary power generators to the extent feasible.*

- *Low-emission on-site stationary equipment shall be used.*

- *Vehicle speeds on unpaved roadways shall be limited to 15 miles per hour.*

- *Idling time for all heavy-duty equipment shall be limited to 5 minutes.*

- *Install ARB-certified Level 3 diesel particulate filters (DPF) on a minimum of 15% of the total number of off-road (non-street legal) diesel-powered construction equipment pieces with an engine size equal to or greater than 50 horsepower (hp) throughout the duration of the project. For fleets with 6 or fewer total applicable equipment pieces, a DPF shall be installed on a minimum of one engine. All DPFs shall be kept in working order and maintained in operable condition according to manufacturer's specifications. At the time of this writing, a list of ARB-certified Level 3 DPF can be found at http://www.arb.ca.gov/diesel/verdev/level3/level3.htm.*

- *Install Level 3 ARB-certified diesel particulate filters (DPF) that are functional and kept in working order to meet manufacturer's specifications throughout the duration of the project on at least 15% of the total pieces of off-road (non-street legal) construction equipment on the project site over 50 horsepower (hp) (a minimum of one diesel particulate filter for fleets with 6 or less total pieces).*

K. Impact 4.14-a. Generation of Temporary, Short-Term Construction Noise

Construction of the Phase 3 Project levee and canal improvements could result in temporary, short-term noise levels that exceed the applicable daytime and nighttime standards for nontransportation sources, resulting in increased annoyance and/or sleep disruption to occupants of residential buildings and other sensitive receptors. This impact would be significant. Implementation of Mitigation Measure 4.14-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. Sensitive receptors live in close proximity to the construction sites, and mitigation cannot feasibly reduce all noise impacts to less-than-significant. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.14-a: **Implement Noise-Reducing Construction Practices, Prepare a Noise Control Plan, and Monitor and Record Construction Noise Near Sensitive Receptors**

SAFCA and its primary contractors for engineering design and construction shall ensure that the following measures are implemented at each work site in any year of project construction to avoid and minimize construction noise effects on sensitive receptors. These measures are consistent with SAFCA's standard contract specifications for noise control.

The primary construction contractors shall employ noise-reducing construction practices. Measures that shall be used to limit noise shall include the measures listed below.

- *Equipment shall be used as far away as practical from noise-sensitive uses.*
- *All construction equipment shall be equipped with noise-reduction devices such as mufflers to minimize construction noise and all internal combustion engines shall be equipped with exhaust and intake silencers in accordance with manufacturers' specifications.*
- *Equipment that is quieter than standard equipment shall be used, including electrically powered equipment instead of internal combustion equipment where use of such equipment is a readily available substitute that accomplishes project tasks in the same manner as internal combustion equipment.*
- *Construction site and haul road speed limits shall be established and enforced.*
- *The use of bells, whistles, alarms, and horns shall be restricted to safety warning purposes only.*
- *Noise-reducing enclosures shall be used around stationary noise-generating equipment (e.g., compressors and generators).*
- *Fixed construction equipment (e.g., compressors and generators), construction staging and stockpiling areas, and construction vehicle routes shall be located at the most distant point feasible from noise-sensitive receptors.*

- *When noise-sensitive uses are within close proximity and subject to prolonged construction noise, noise-attenuating buffers such as structures, truck trailers, or soil piles shall be located between noise generation sources and sensitive receptors.*

- *Before construction activity begins within 500 feet of one or more residences or businesses, written notification shall be provided to the potentially affected residents or business owners, identifying the type, duration, and frequency of construction activities. Notification materials shall also identify a mechanism for residents or business owners to register complaints with the appropriate jurisdiction if construction noise levels are overly intrusive. The distance of 500 feet is based on the 60-dBA contour of the loudest anticipated construction activity other than pile driving.*

- *When construction of cutoff walls takes place during nighttime hours (between 10:00 p.m. and 6:00 a.m.), SAFCA shall honor requests from affected residents to provide reasonable reimbursement of local hotel or short-term rental stays for the period of time that cutoff wall construction takes place within 500 feet of the residents requesting reimbursement.*

- *If noise-generating activities are conducted within 100 feet of noise-sensitive receptors (the 70-dBA noise contour of construction noise), the primary contractor shall continuously measure and record noise levels generated as a result of the proposed work activities. Sound monitoring equipment shall be calibrated before taking measurements and shall have a resolution within 2 dBA. Monitoring shall take place at each activity operation adjacent to sensitive receptors. The recorded noise monitoring results shall be furnished weekly to SAFCA.*

- *The primary contractor shall prepare a detailed noise control plan based on the construction methods proposed. This plan shall identify specific measures to ensure compliance with the noise control measures specified above. The noise control plan shall be submitted to and approved by SAFCA before any noise-generating construction activity begins.*

L. Impact 4.14-b. Exposure of Sensitive Receptors to or Generation of Excessive Groundborne Vibration

At one residence located near the Pumping Plant No. 2 site, pile driving activities could temporarily cause vibration levels that exceed the Federal Transit Administration's (FTA's) human disturbance-based standard. This impact would be significant. Implementation of Mitigation Measure 4.14-b, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. Mitigation may not reduce the impact to the affected residential structure to levels below applicable standards. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.14-b: **Implement Measures to Minimize Construction-Related Vibration Effects at the Pumping Plant No. 2 Site**

SAFCA and its primary contractors for engineering design and construction shall ensure that the measures listed below are implemented to avoid and minimize construction vibration effects on sensitive receptors and the structure near the Pumping Plant No. 2 site.

- *Pile driving shall be conducted as far as practicable from the residential structure.*
- *Vibration monitoring equipment shall be placed at the property line adjacent to large equipment and, with owner approval, at the back of the residential structure adjacent to the large equipment.*
- *A preconstruction and postconstruction survey shall be conducted to assess potential architectural damage from pile driving at the residence near the RD 1000 Pumping Plant No. 2 site which is owned by RD 1000 and/or NCMWC. The survey shall include visual inspection of the structure and documentation of the structure by means of photographs and video. This documentation shall be reviewed with the individual owner prior to any construction activity. Postconstruction monitoring of the structure shall be performed to identify (and repair, if necessary) damage, if any, from construction vibrations. Any damage shall be documented with photographs and video.*

M. Impact 4.14-c. Temporary, Short-term Exposure of Residents to Increased Traffic Noise Levels from Hauling Activity

Project construction would generate high volumes of haul truck trips on area roads, temporarily causing noise levels to exceed exterior noise standards at residential land uses and potentially resulting in temporary sleep disturbance at nearby residences. This impact would be potentially significant. Implementation of Mitigation Measure 4.14-c, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact, but not to a less-than-significant level. The mitigated noise levels could still exceed local exterior noise standards for residential land uses. Therefore, this impact would remain potentially significant and unavoidable.

Mitigation Measure 4.14-c: **Implement Noise-Reduction Measures to Reduce the Temporary, Short-term Impacts of Haul Truck Traffic Noise**

SAFCA and its primary contractors for engineering design and construction shall ensure that the measures listed below are implemented at each work site in any year of project construction to minimize temporary, short-term construction traffic noise effects on sensitive receptors.

- *All heavy trucks shall be equipped with noise control (e.g., muffler) devices in accordance with manufacturers' specifications.*
- *All haul trucks shall be inspected before use and a minimum of once per year to ensure proper maintenance and presence of noise-control devices (e.g., lubrication, nonleaking mufflers, and shrouding).*
- *Before haul truck trips are initiated during a construction season on roads within 160 feet of residences (the 60-dBA noise contour of haul truck traffic), written notification shall be provided to the potentially affected residents identifying the hours and frequency of haul truck trips. Notification materials shall also identify a mechanism for residents to register complaints with the appropriate jurisdiction if haul truck noise levels are overly intrusive or occur outside the exempt daytime hours for the applicable jurisdiction.*

N. Impact 4.16-a. Alteration of Scenic Vistas, Scenic Resources, and Existing Visual Character of the Project Area

The Phase 3 Project would require the temporary use of construction equipment which would temporarily degrade the visual character of some parts of the project area. Additionally, the removal of trees and the conversion of some grassland to woodlands would alter the existing visual character of parts of the project area. This impact would be significant. Because there is no feasible mitigation available, this impact would remain significant and unavoidable.

O. Impact 4.16-b. New Sources of Light and Glare that Adversely Affect Views

Temporary, short-term use of nighttime lighting for construction could impact adjacent residences, particularly if construction 24 hours a day, seven days a week is required. This impact would be significant. Implementation of Mitigation Measure 4.16-b, summarized and set forth in part below, and set forth in part in Section III.BB, below, would reduce this impact, but not to a less-than-significant level. Mitigation Measure 4.16-b is hereby adopted and incorporated into the Phase 3 Project. Light and glare could still adversely impact nearby residences. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4.16-b: **Implement Mitigation Measure 4.19-a, "Coordinate Work in the Critical Zone with Airport Operations and Restrict Night Lighting within and near the Runway Approaches;" and Direct Lighting Away from Adjacent Properties**

SAFCA shall implement the following measures to reduce the impacts of light and glare associated with project construction activities.

SAFCA shall implement Mitigation Measure 4.19-a, "Coordinate Work in the Critical Zone with Airport Operations and Restrict Night Lighting within and near the Runway Approaches," contained in Section 4.19, "Airport Safety," which requires that no borrow activities shall be conducted within the Airport Critical Zone during nighttime hours; and, that all project-related nighttime lighting that is in, or is aligned with, the Airport runway approach zone (Sacramento River east levee Reaches 5A–9B) shall be directed downward to avoid potential interference within nighttime aircraft operations.

Additionally, SAFCA shall implement the following measures:

(a) SAFCA shall require that nearby residents be notified in advance of nighttime construction activities.

(b) SAFCA shall require that construction and security lighting be shielded and directed downward to minimize the spill of light onto adjacent properties.

III. SIGNIFICANT ADVERSE IMPACTS IDENTIFIED IN THE DEIS/DEIR THAT ARE REDUCED TO A LESS-THAN-SIGNIFICANT LEVEL BY MITIGATION MEASURES INCORPORATED INTO THE PHASE 3 PROJECT

The FEIR identifies the following significant impacts associated with the Phase 3 Project. These impacts are reduced to a less-than-significant level by mitigation measures identified in the FEIR and incorporated into the Phase 3 Project. It is hereby determined that the impacts addressed by these mitigation measures will be mitigated to a less-than-significant level or avoided by incorporation of these mitigation measures into the project. To the extent that these mitigation measures will not mitigate or avoid all significant effects on the environment, it is hereby determined that any remaining significant and unavoidable adverse impacts are acceptable for the reasons specified in Section VI, below.

A. Impact 4.2-b. Inconsistency with the Natomas Basin Habitat Conservation Plan

The Phase 3 Project involves the creation of habitat to substitute for habitat for NBHCP-covered species that would be affected by the project. Without proper implementation, the Phase 3 Project could reduce the effectiveness of the NBHCP conservation strategy and adversely affect attainment of its goals and objectives. Because the Phase 3 Project would be potentially inconsistent with the NBHCP, this impact would be potentially significant. Implementation of Mitigation Measure 4.2-b, summarized below and set forth in full in Sections III.P, III.I, III.K, III.L, III.M, III.N, and III.O, below, and in Sections II.D and II.E, above, would ensure consistency, thereby reducing this impact to a less-than-significant level. Mitigation Measure 4.2-b is hereby adopted and incorporated into the Phase 3 Project.

Mitigation Measure 4.2-b: **Implement Mitigation Measure 4.9-h, "Ensure that Project Encroachment Does Not Jeopardize Successful Implementation of the NBHCP and Implement Mitigation Measures 4.7-a, 4.8-a, 4.9-a through 4.9-c, and 4.9-e through 4.9-g"**

SAFCA shall implement Mitigation Measure 4.9-h, "Ensure that Project Encroachment Does Not Jeopardize Successful Implementation of the NBHCP and Implement Mitigation Measures 4.7-a, 4.8-a, 4.9-a through 4.9-c, and 4.9-e through 4.9-g," contained in Section 4.9, "Special-Status Terrestrial Species." This mitigation measure requires SAFCA to coordinate with TNBC, USFWS, and DFG to identify and implement actions to ensure that the project's small encroachment onto TNBC reserves does not jeopardize successful implementation of the NBHCP.

B. Impact 4.3-a. Potential Temporary and Permanent Localized Soil Erosion during Construction and Operation

The excavation of soil from borrow sites would entail the preservation and replacement of topsoil, but these borrow activities would result in the temporary disturbance of soil and could expose disturbed areas to erosion. Construction, tree removal, structure removal, and borrow activities all have the potential to cause substantial erosion and loss of topsoil. This impact would be potentially significant. Implementation of Mitigation Measure 4.3-a(1), summarized below and set forth in full in Section III.D, below, and Mitigation Measure 4.3-a(2), set forth

below, would reduce this impact to a less-than-significant level. Mitigation Measure 4.3-a(1) and Mitigation Measure 4.3-a(2) are hereby adopted and incorporated into the Phase 3 Project.

Mitigation Measure 4.3-a(1): **Implement Mitigation Measure 4.5-a, "Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions"**

SAFCA shall implement Mitigation Measure 4.5-a, "Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions," contained in Section 4.5, "Water Quality." SAFCA's final design and construction specifications for all project components, including borrow sites, shall include implementation of standard erosion, siltation, and soil stabilization Best Management Practices (BMPs). This mitigation measure requires filing a Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board (RWQCB); implementing standard erosion, siltation, and BMP measures; preparing and implementing a Stormwater Pollution Prevention Plan (SWPPP); and complying with the conditions of the National Pollutant Discharge Elimination System (NPDES) general stormwater permit for construction activity. Upon selection of borrow sites within the Elkhorn Borrow Area, specific details within the BMPs, SWPPP, and NPDES permit shall reflect potential impacts.

Mitigation Measure 4.3-a(2): **Secure and Implement the Conditions of the California Surface Mining and Reclamation Act Permit**

In the event that any borrow site activity is determined to be subject to SMARA, SAFCA shall secure and implement the conditions contained in the SMARA permit as administered and issued by the local agency (applicable county).

C. Impact 4.4-b. Alteration of Local Drainage

Because specific plans have not been finalized to ensure uninterrupted conveyance of drainage from agricultural lands along the Sacramento River east levee and the PGCC west levee, and grading plans have not been finalized for borrow areas, the Phase 3 Project may temporarily or even permanently alter the existing drainage pattern of the project area, causing localized flooding. This impact would be potentially significant. Implementation of Mitigation Measure 4.4-b, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.4-b: **Coordinate with Landowners and Drainage Infrastructure Operators, Prepare Final Drainage Studies as Needed, and Implement Proper Project Design**

During project design, the project engineers shall coordinate with owners and operators of local drainage systems and landowners served by the systems. This coordination shall enable the project engineers to evaluate the preproject and postproject drainage needs and the design features to consider in project design any project-related substantial drainage disruption or alteration in runoff that would increase the potential for local flooding. If substantial alteration

of runoff patterns or disruption of a local drainage system could result from a project feature, a final drainage study shall be prepared and implemented as part of project design. The study shall consider the design flows of any existing facilities that would be crossed by project features and shall develop appropriate plans for relocation or other modification of these facilities and construction of new facilities, as needed, to ensure that the altered systems provide drainage services during and after construction that are equivalent to the drainage services that were provided prior to construction. If no drainage facilities (e.g., ditches, canals) would be affected, but project features would have a substantial adverse impact on runoff amounts and/or patterns, then new drainage systems shall be included in the design of project improvements to ensure that the project would not result in new or increased local flooding. Any necessary features to remediate project-induced drainage problems shall be constructed before the project is completed or as part of the project, depending on site-specific conditions. Any additional coordination with landowners and drainage infrastructure operators related to future selection of borrow sites within the Elkhorn Borrow Area shall be completed before any earth-moving activities.

D. Impact 4.5-a. Temporary Impacts on Water Quality from Stormwater Runoff, Erosion, or Spills

Project implementation would include extensive ground-disturbing activities during construction, excavation of borrow material, and construction during the rainy season, all occurring near waterways that could become contaminated as a result of these activities. Water quality could also be degraded if construction slurry is mishandled or if excavated areas fill with water during construction and require dewatering. This temporary, constructed-related impact would be potentially significant. Implementation of Mitigation Measure 4.5-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.5-a: **Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions**

SAFCA shall file a Notice of Intent (NOI) to discharge stormwater associated with construction activity with the Central Valley RWQCB. Final design and construction specifications shall require the implementation of standard erosion, siltation, and good housekeeping BMPs. Construction contractors shall be required to prepare and implement a SWPPP and comply with the conditions of the NPDES general stormwater permit for construction activity. The SWPPP shall describe the construction activities to be conducted, BMPs that will be implemented to prevent discharges of contaminated stormwater into waterways, and inspection and monitoring activities that shall be conducted.

The SWPPP shall include the following:

- *pollution prevention measures (erosion and sediment control measures and measures to control nonstormwater discharges and hazardous spills),*

- *demonstration of compliance with all applicable Central Valley RWQCB standards and other applicable water quality standards,*
- *demonstration of compliance with regional and local standards for erosion and sediment control,*
- *identification of responsible parties,*
- *detailed construction timelines, and*
- *a BMP monitoring and maintenance schedule.*

BMPs shall include the following:

- *conduct all work according to site-specific construction plans that identify areas for clearing, grading, and revegetation so that ground disturbance is minimized;*
- *install silt fences near riparian areas or streams to control erosion and trap sediment, and reseed cleared areas with native vegetation;*
- *stabilize disturbed soils of the new or raised levees, existing levee removal areas, and borrow sites before the onset of the winter rainfall season; and*
- *stabilize and protect stockpiles from exposure to rain and potential erosion.*

The SWPPP also shall specify appropriate hazardous materials handling, storage, and spill response practices to reduce the possibility of adverse impacts from use or accidental spills or releases of contaminants. Specific measures applicable to the project include, but are not limited to, the following:

- *develop and implement strict on-site handling rules to keep potentially contaminating construction and maintenance materials out of drainages and other waterways;*
- *conduct all refueling and servicing of equipment with absorbent material or drip pans underneath to contain spilled fuel, and collect any fluid drained from machinery during servicing in leak-proof containers and deliver to an appropriate disposal or recycling facility;*
- *maintain controlled construction staging and fueling areas at least 100 feet away from channels or wetlands to minimize accidental spills and runoff of contaminants in stormwater;*
- *prevent substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses; and*
- *maintain spill cleanup equipment in proper working condition. Clean up all spills immediately according to the spill prevention and response plan, and immediately notify California Department of Fish and Game (DFG) and the Central Valley RWQCB of any spills and cleanup procedures.*

BMPs shall be applied to meet the "maximum extent practicable" and "best conventional technology/best available technology" requirements and to address compliance with water quality standards. A monitoring program shall be implemented during and after construction to ensure that the project is in compliance with all applicable standards and that the BMPs are effective.

E. Impact 4.5-b. Impacts to Sacramento River Water Quality from Stormwater Runoff from Garden Highway Drainage Outlets

Implementation of the Phase 3 Project would involve construction of a new drainage system along Garden Highway. Without treatment, stormwater runoff from Garden Highway could degrade the water quality of the Sacramento River. This impact would be significant. Implementation of Mitigation Measure 4.5-b, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.5-b: **Implement Standard Best Management Practices and Comply with NPDES Permit Conditions**

SAFCA and its engineering consultants shall implement a suite of stormwater quality BMPs designed to remove contaminants from water discharging through the Garden Highway outlets. These BMPs shall be based on the Stormwater Quality Design Manual for Sacramento and South Placer Regions (May 2007), meet "maximum extent practicable" and "best conventional technology/best available technology" requirements, and comply with NPDES permit conditions.

F. Impact 4.5-c. Impacts to Sacramento River Water Quality from RD 1000 Pumping Plant No. 2 Discharges

The Phase 3 Project would involve and reconstruction of the RD 1000 Pumping Plant No. 2. Without treatment, discharges from the plant could degrade the water quality of the Sacramento River. This impact would be potentially significant. Implementation of Mitigation Measure 4.5-c, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.5-c: **Implement Best Management Practices and Comply with NPDES Permit Conditions for a Point-Source Discharge**

Prior to operation of Pumping Plant No. 2 for discharge of water into the Sacramento River, SAFCA and RD 1000 shall file a report of waste discharge with RWQCB and comply with NPDES permit conditions (See Mitigation Measure 4.5-a for more information on BMPs and the SWPPP).

G. Impact 4.6-a: Loss of Fish or Aquatic Habitat through Increased Sedimentation and Turbidity, Releases of Contaminants, or Other Construction-Related Disturbance

Project construction activities may temporarily impair water quality if disturbed and eroded soil is discharged and/or suspended into receiving waters. High levels of suspended

sediments would cause the movement and redistribution of fish populations and could affect habitat. Fish could also be adversely affected by other water contaminants, by underwater sound pressure effects, and by construction at pumping plants. While the implementation of in-water work windows and a fish rescue plan would reduce potential impacts, these activities lack the necessary detail to ensure that impacts would remain below thresholds of significance. For the reasons described above, construction-related disturbance and sedimentation and increased turbidity or other contamination could degrade water quality and adversely affect fish habitats and fish populations. This potential impact would be significant. Implementation of Mitigation Measure 4.6-a, summarized and set forth in part below and set forth in part in Sections III.D and III.F, above, would reduce this impact to a less-than-significant level. Mitigation Measure 4.6-a is hereby adopted and incorporated into the Phase 3 Project.

Mitigation Measure 4.6-a: **Implement Mitigation Measure 4.5-a, "Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions," and Mitigation Measure 4.5-c, "Implement Best Management Practices and Comply with NPDES Permit Conditions for a Point-Source Discharge"; Implement a Feasible Construction Work Window that Minimizes Impacts to Special-Status Fish Species for Any In-Water Activities; and Implement Operational Controls and a Fish Rescue Plan that Minimizes Impacts to Fish Associated with Cofferdam Construction and Dewatering**

SAFCA shall implement the following measures to reduce impacts to a less than significant level. These measures shall be included in construction specifications along with any additional measures identified in necessary permits.

SAFCA shall implement Mitigation Measure 4.5-a, as described in Section 4.5, "Water Quality." This measure requires filing an Notice of Intent (NOI) with the Central Valley RWQCB; implementing standard erosion and siltation measures and best management practices (BMPs); preparing and implementing a storm water pollution prevention plan (SWPPP); and complying with the conditions of the National Pollutant Discharge Elimination System (NPDES) general stormwater permit for construction activity.

SAFCA shall implement Mitigation Measure 4.5-c, as described in Section 4.5, "Water Quality," which requires filing a report of waste discharge with the Central Valley RWQCB and complying with the NPDES permit conditions prior to operation of RD 1000's Pumping Plant No. 2.

SAFCA shall identify and implement feasible in-water construction work windows in consultation with NMFS, USWFS, and DFG. In-water work windows shall be timed to occur when sensitive fish species/life stages are not present or least susceptible to disturbance (e.g., July 1–October 31). This measure would reduce potential construction-related direct impacts to fish from potential dredging and/or construction of the cofferdam and dewatering, and/or the placement of rock riprap because all in-water work would occur during the period of time that sensitive fish (or life stages) would be least likely to be present in the construction area.

The cofferdam sheetpiles at the outfall structure construction site shall be installed using a vibratory hammer that minimizes underwater sound pressure levels to the greatest extent feasible

to minimize effects to sensitive fish species. Hammers shall only be used during daytime hours and shall commence at low energy levels and slowly build to impact force. If it is determined that a higher-intensity percussion hammer would be required for installing the cofferdam, avoidance of potential adverse effects would be achieved by consulting with NMFS, USFWS, and DFG to determine the appropriate actions, which may include surveying the outfall site to determine fish presence prior to installation, and possibly modifying the work window accordingly.

To reduce the potential for fish stranding or minimize the potential for harm during cofferdam dewatering activities, SAFCA or its contractor shall implement a fish rescue plan. Prior to the closure of the cofferdam in the Sacramento River, seining by a qualified fisheries biologist (with a current DFG collection permit) would be conducted within the cofferdam using a small-mesh seine to direct and move fish out of the cofferdam area. Upon completion of seining, the entrance to the cofferdam will be blocked with a net to prevent fish from entering the cofferdam isolation area before the cofferdam is completed. Once the cofferdam is completed and the area within the cofferdam is closed and isolated, additional seining will be conducted within the cofferdam to remove any remaining fish. Once most of the fish have been removed from the isolated area, portable pumps with intakes equipped with 1.75 mm mesh screen shall be used to dewater to a depth of 1.5-2 feet. A qualified biologist would implement further fish rescue operations using electrofishing and dip nets. All fish that are captured will be placed in clean 5-gallon buckets and/or coolers filled with Sacramento River water, transported downstream of the construction area, and released back into suitable habitat in the Sacramento River with minimal handling. After all fish have been removed using multiple seine passes, electrofishing, and dip nets (as necessary) portable pumps with screens (see above) will be used for final dewatering. NMFS, USFWS, and DFG shall be notified at least 48 hours prior to the fish rescue.

H. Impact 4.6-b. Loss of Shaded Riverine Aquatic Habitat Associated with Levee Improvement Activities

Small amounts of riparian vegetation may need to be removed, thus decreasing the amount of shaded riverine aquatic habitat. This impact would be potentially significant. Implementation of Mitigation Measure 4.6-b, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level. Potential impacts associated with implementation of this mitigation measure would be similar to those described above under Impact 4.6-a for other construction activities and would be reduced to a less-than-significant level through the implementation of Mitigation Measure 4.6-a, adopted and incorporated into the Phase 3 Project in Section III.G, above.

Mitigation Measure 4.6-b: **Restore, Replace, or Rehabilitate Degraded SRA Habitat Function and Comply with Section 7 of the Federal Endangered Species Act, Section 1602 of the California Fish and Game Code, and Section 2081 of the California Endangered Species Act Permit Conditions**

To restore, replace, or rehabilitate SRA habitat along the Sacramento River east levee at the location of the RD 1000 Pumping Plant No. 2 and in the footprint of the drainage outfall structures, SAFCA shall implement the measures described below.

- *Sacramento River water side riparian woodland areas that provide SRA habitat functions shall be identified and the primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of such areas to the extent feasible. Temporary fencing shall be used during construction to prevent disturbance of trees and shrubs that are located adjacent to construction areas but can be avoided.*

- *Sacramento River water side riparian forest and scrub shall be restored using native species, including an assemblage of grasses, sedges, shrubs, and trees. At maturity, the riparian vegetation community would provide SRA functions. SAFCA shall develop a detailed woodland planting design and management protocols in coordination with USFWS, NMFS, and DFG. A monitoring plan with performance criteria shall be developed to determine the progress of the woodland habitats towards providing adequate mitigation. The criteria for measuring performance will be used to determine if the conservation component is trending toward sustainability (reduced human intervention) and to assess the need for adaptive management (e.g., changes in design or maintenance revisions). These criteria must be met for the conservation component to be declared successful, both during a particular monitoring year and at the end of the establishment period. These performance criteria, which will be developed in consultation with USFWS, NMFS, and DFG, shall include, but are not limited to: percent survival of planted trees, percent survival of any transplanted trees, and percent relative canopy cover.*

  SAFCA shall also enter into agreements with entities responsible for long-term management of created SRA habitats to ensure that performance standards and long-term management goals are met. SAFCA shall provide assurances of adequate funding for habitat creation and management. Such agreements shall be coordinated with USFWS, NMFS, and DFG. SAFCA shall implement all terms and conditions of the agreements.

- *SAFCA shall consult with DFG regarding potential disturbance to fish habitat, including SRA, and shall obtain a streambed alteration agreement, pursuant to Section 1602 of the California Fish and Game Code, for construction work associated with levee improvements made on the waterside of a levee. SAFCA shall comply with all permit conditions of the streambed alteration agreement to protect fish habitat or to restore, replace, or rehabilitate any SRA habitat on a no-net-loss basis.*

- *USACE shall initiate Section 7 consultation with the National Marine Fisheries Service (NMFS) under Section 7 of the Federal Endangered Species Act (ESA), and SAFCA shall consult with DFG under the California Endangered Species Act (CESA) regarding potential impacts of the loss of SRA habitat on Federally listed fish species and state-listed fish species, respectively. SAFCA shall implement any additional measures developed through the ESA Section 7 and CESA consultation processes, including Section 2081 permit conditions to ensure no net loss of habitat function.*

I. <u>Impact 4.7-a. Impacts on Jurisdictional Waters of the United States</u>

The Phase 3 Project would result in temporary and permanent impacts, including fill, to waters of the United States, including wetlands. An overall adverse impact on waters of the United States could occur if the creation and management of substitute aquatic habitat is not properly implemented. This impact would be potentially significant. Implementation of Mitigation Measure 4.7-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level, and would create a beneficial impact by creating more extensive waters of the United States than those filled by the Phase 3 Project.

Mitigation Measure 4.7-a: **Minimize Effects on Jurisdictional Waters of the United States, Complete Detailed Design of Habitat Creation Components and Secure Management Agreements to Ensure Compensation of Waters Filled, and Comply with Section 404, Section 401, Section 10, and Section 1602, Permit Processes**

SAFCA shall implement the measures described below to reduce impacts related to loss or fill of jurisdictional waters of the United States.

- *Waters of the United States, including wetlands, shall be identified and the primary engineering and construction contractors shall ensure, through coordination with a qualified biologist(s), that construction is implemented in a manner that minimizes disturbance of canals, ditches, and seasonal wetlands. Temporary fencing shall be used during construction to prevent disturbance of waters of the United States that are located adjacent to construction areas but can be avoided.*
- *To mitigate for permanent impacts to sensitive aquatic resources, at least 1 acre of aquatic habitat (irrigation/drainage canal) or wetland shall be created for every acre that is lost to ensure no net loss of sensitive aquatic habitat. The mitigation ratio that is ultimately required will be determined by USACE through the Section 404 permitting process. The Phase 3 Project includes construction of approximately 11 acres of canal habitat within the new GGS/Drainage Canal and approximately 4.5 acres within the replaced Elkhorn Canal. The overall program would include approximately 60 acres of new canal-associated habitat, resulting from construction of the new GGS/Drainage Canal and replacement of the Elkhorn and Riverside Canals.*

  In addition, construction of approximately 20 acres of wetlands within a 100-acre managed marsh complex would be created in the Fisherman's Lake Area as part of the Phase 4a Project, which is planned to be constructed concurrently with Phase 3 Project. The Phase 4a DEIS/DEIR is scheduled for public release in summer 2009.

- *Develop and implement a Mitigation and Monitoring Plan (MMP) and Long-Term Management Plan (LTMP) in coordination with and subject to approval of USACE, USFWS, and DFG. The MMP and LTMP shall provide complete detailed designs of habitat creation components, performance standards, and management protocols. SAFCA shall also enter into agreements with entities responsible for long-term management of created canals and marsh habitats to ensure that performance standards and long-term management goals that are required by the regulatory agencies with jurisdiction over these resources will be*

specifically detailed and outlined in the LTMP and MMP. All performance standards and long-term management goals will be in full compliance with ESA and CESA. Such agreements shall be coordinated with USACE, USFWS, and DFG. SAFCA shall secure all such agreements and implement all conditions of the agreements.

- *Obtain the following applicable permits prior to the start of construction activities that would affect the resources covered by these permits: an individual permit pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act from USACE, Section 401 certification from the Central Valley Regional Water Quality Control Board, and a Section 1602 streambed alteration agreement from DFG. All measures adopted through these permitting processes shall be implemented by SAFCA.*

J. Impact 4.8-b. Impacts on Wildlife Corridors

Irrigation and drainage ditches and canals within the project area serve as critical corridors for movement of aquatic species, particularly the giant garter snake. Adverse impacts to these corridors under the Phase 3 Project would consist of temporary disturbance and permanent loss of canals, ditches, and their associated habitat values, but new canal habitat to be created as part of the project would provide new movement corridors. If these new corridors are not managed correctly, the impact on aquatic movement corridors would be significant. Also, the Phase 3 Project's impacts on woodlands would affect movement corridors for bird species, and this impact would be potentially significant due to the time required for woodland plantings to mature. Implementation of Mitigation Measure 4.8-b, summarized below and set forth in full in Sections II.D, above and III.M, below, would reduce this impact to a less-than-significant level. Mitigation Measure 4.8-b is hereby adopted and incorporated into the Phase 3 Project.

Mitigation Measure 4.8-b: **Implement Mitigation Measure 4.8-a, "Minimize Effects on Woodland Habitat, Implement all Woodland Habitat Conservation Components and Management Agreements, Compensate for Loss of Habitat, and Comply with the DFG Section 1602 Permit Process," and Mitigation Measure 4.9-c, "Minimize the Potential for Direct Loss of Giant Garter Snake Individuals, Implement all Upland and Aquatic Habitat Conservation Components and Management Agreements to Ensure Adequate Compensation for Loss of Habitat, and Obtain Incidental Take Authorization"**

K. Impact 4.9-a. Impacts on Special-Status Plant Species

Loss of habitat that is potentially occupied by special-status plants in the Phase 3 Project footprint would be offset by the creation of new irrigation and drainage canals habitat. However, if habitat creation and management are not effectively implemented, this potential impact would be significant. Implementation of Mitigation Measure 4.9-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.9-a: **Conduct Focused Surveys for Special-Status Plants, Minimize Effects, and Compensate for Loss of Habitat**

To reduce impacts on special-status plant species, SAFCA shall implement the measures described below.

- *Before any ground-disturbing activities begin, a qualified biologist retained by SAFCA shall conduct surveys for special-status plants in appropriate habitat within the project footprint, in accordance with USFWS and/or DFG guidelines and at the appropriate time of year when the target species would be clearly identifiable. If no special-status plants are found during focused surveys, no further action shall be required.*

- *If special-status plants are found in the project footprint, areas of occupied habitat shall be identified and the primary engineering and construction contractors shall ensure, through coordination with the biologist, that construction activities are implemented in a manner that minimizes disturbance of these areas (e.g., temporary fencing shall be used during construction to protect all occupied habitat that is located adjacent to construction areas that can be avoided).*

- *If special-status plants are present in areas that cannot be avoided, SAFCA shall coordinate with USFWS and DFG to determine whether transplanting would be appropriate to further minimize adverse effects. Affected plants may potentially be transplanted to the GGS/Drainage Canal, if feasible. At least 1 acre of irrigation/drainage canal or marsh habitat shall be created for every acre of occupied special-status plant habitat that is lost.*

- *If special-status plants cannot be avoided, seed shall be collected and propagated at a DFG-approved nursery to provide additional plantings and transplanted during the dormant season if feasible to an approved site. Additionally, a mitigation plan shall be developed and approved by DFG. The plan shall include success criteria and specific requirements for planting, monitoring, and remediation in the event that success criteria cannot be met. Mitigation sites shall be permanently protected and managed in perpetuity.*

L. Impact 4.9-b. Impacts on Valley Elderberry Longhorn Beetle

The Phase 3 Project would cause the loss of elderberry shrubs, the host plant of the valley elderberry longhorn beetle. The woodland creation plan would be designed to replace and protect the essential functions of valley elderberry longhorn beetle habitat. However, if habitat creation and management are not implemented effectively, this impact would be significant. Implementation of Mitigation Measure 4.9-b, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.9-b: Conduct Focused Surveys for Elderberry Shrubs as Needed, Complete Detailed Design of Woodland/Elderberry Habitat and Management Agreements to Ensure Adequate Compensation for Loss of Shrubs and Implement All Woodland Habitat Conservation Components and all Management Agreements, Ensure Adequate Compensation for Loss of Shrubs, and Obtain Incidental Take Authorization

To reduce impacts on valley elderberry longhorn beetle, SAFCA shall implement the measures described below.

- *A qualified biologist retained by SAFCA shall conduct focused surveys of elderberry shrubs within 100 feet of the project footprint, in accordance with USFWS guidelines. All elderberry shrubs with potential to be affected by project activities shall be mapped, the number of stems greater than 1 inch in diameter on each shrub that requires removal shall be counted, and these stems shall be searched for beetle exit holes.*

- *The primary engineering and construction contractors shall ensure, through coordination with the biologist, that construction is implemented in a manner that minimizes disturbance of areas that support elderberry shrubs (e.g., temporary fencing shall be used during construction to protect all elderberry shrubs that are located adjacent to construction areas but can be avoided). Shrubs that require removal shall be transplanted to the woodland creation areas, if feasible. If none of the areas of suitable habitat to be created as part of the project would be available before the impact would occur, alternative transplantation locations (e.g., other SAFCA mitigation areas or TNBC preserves) shall be identified and shall be approved by USFWS.*

- *The number of replacement elderberry plantings shall be determined based on USFWS guidelines, which require replacement ratios ranging from 1:1 to 8:1 for lost stems at least 1 inch in diameter, depending on the size of the affected stems and presence or absence of beetle exit holes. Associated native species shall be planted at ratios ranging from 1:1 to 2:1 for each elderberry planting.*

- *SAFCA shall coordinate with USFWS, DFG, and SCAS (if on Airport property) to ensure that woodland habitat conservation components of the NLIP are created and managed as described in Section 2.3.3, "Habitat Conservation Components," in the Phase 3 DEIS/DEIR. SAFCA shall prepare a project-specific MMP and programmatic LTMP to ensure the creation and long-term management of these components (see Section 2.3.3.6, "Long-Term Management of Habitat Components") before construction commences. SAFCA shall enter into agreements with the appropriate local entity responsible for long-term management of these created woodland habitats and shall coordinate with USFWS and DFG to ensure that performance standards and long-term management goals that are required by regulatory agencies with jurisdiction over these resources will be specifically detailed and outlined in the LTMP and MMP. All performance standards and long-term management goals will be in full compliance with ESA and CESA. SAFCA shall implement all terms and conditions of the management agreements.*

- *USACE shall initiate consultation activities with USFWS under Section 7 of the Federal ESA, and authorization for take of valley elderberry longhorn beetle under the Federal ESA shall be obtained if it is determined, in consultation with USFWS, that shrub removal is likely to result in such take. All measures subsequently developed through the Section 7 consultation process shall be implemented by SAFCA.*

M. <u>Impact 4.9-c. Impacts on Giant Garter Snake Related to Project Construction Activities</u>

Project construction and implementation would result in permanent and temporary loss and disturbance of potential giant garter snake habitat. Substitute habitat would be created; however, if habitat creation and management are not effectively implemented this impact would be potentially significant. Implementation of Mitigation Measure 4.9-c, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.9-c: **Minimize the Potential for Direct Loss of Giant Garter Snake Individuals, Implement All Upland and Aquatic Habitat Conservation Components and Management Agreements to Ensure Adequate Compensation for Loss of Habitat, and Obtain Incidental Take Authorization**

To reduce impacts on the giant garter snake, SAFCA shall implement the measures described below.

- *The primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of giant garter snake habitat (e.g., temporary fencing shall be used during construction to protect all aquatic and adjacent upland habitat that is located adjacent to construction areas that can be avoided).*

- *Additional measures consistent with the goals and objectives of the NBHCP shall be implemented to minimize the potential for direct injury or mortality of individual giant garter snakes during project construction. Such measures shall be finalized in consultation with USFWS and DFG, and are likely to include conducting worker awareness training, timing initial ground disturbance to correspond with the snake's active season (as feasible in combination with project needs and minimizing disturbance of nesting Swainson's hawks), dewatering aquatic habitat before fill, conducting preconstruction surveys, erecting fencing around habitat features that can be avoided to ensure that these remain undisturbed by construction vehicles and personnel, conducting biological monitoring during construction, and removing any temporary fill or construction debris and restoring temporarily disturbed areas to their pre-project conditions according to the USFWS's Guidelines for the Restoration and/or Replacement of Giant Garter Snake Habitat (USFWS 1997).*

- *SAFCA shall coordinate with USFWS, DFG, and SCAS (if on Airport property) to ensure that aquatic and upland habitat conservation components of the NLIP are created and managed as described in Section 2.3.3, "Habitat Conservation Components," in the Phase 3 DEIS/DEIR. SAFCA shall prepare a project-specific MMP and programmatic LTMP to ensure the creation and long-term management of these components (see Section 2.3.3.6, "Long-Term Management of Habitat Components") before construction commences. SAFCA shall enter into agreements with the appropriate local entity responsible for long-term management of these created giant garter snake habitats and shall coordinate with USFWS and DFG to ensure that performance standards and long-term management goals are required by the regulatory agencies with jurisdiction over these resources will be specifically detailed and outlined in the LTMP and MMP. All performance standards and long-term*

management goals will be in full compliance with ESA and CESA. SAFCA shall implement all terms and conditions of the management agreements.

- *Authorization for take of giant garter snake under the Federal ESA and CESA shall be obtained. All measures subsequently adopted through the permitting process shall be implemented.*

N. Impact 4.9-e. Impacts on Northwestern Pond Turtle

The Phase 3 Project would result in permanent losses of suitable pond turtle habitat, but these losses would be offset by the proposed habitat creation components of the project. However, direct loss of pond turtles may occur if turtles are present within the affected habitats. This impact would be potentially significant. Implementation of Mitigation Measure 4.9-e, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.9-e: **Conduct Focused Surveys for Northwestern Pond Turtles and Relocate Turtles, if Needed**

A qualified biologist retained by SAFCA shall conduct surveys in aquatic habitats to be dewatered and/or filled during project construction. Surveys shall be conducted immediately after dewatering and before fill of aquatic habitat suitable for pond turtles. If pond turtles are found, the biologist shall capture them and move them to nearby areas of suitable habitat that would not be disturbed by project construction.

O. Impact 4.9-g. Impacts on Burrowing Owl

Project construction and implementation could result in destruction of burrows and direct loss of burrowing owls. This impact would be potentially significant. Implementation of Mitigation Measure 4.9-g, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.9-g: **Minimize Potential Impacts on Burrowing Owls and Relocate Owls as Needed**

To reduce impacts on burrowing owls, SAFCA shall implement the measures described below.

- *The primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of potential nesting habitat for burrowing owls (e.g., removal of potential nesting habitat shall be conducted during the non-nesting season, to the extent feasible and practicable, to minimize the potential for loss of active nests).*

- *The biologist shall conduct preconstruction surveys to identify occupied burrowing owl burrows in the vicinity of construction areas. Surveys for burrowing owl shall be conducted before project activities are initiated at any time of year. Surveys shall be conducted in accordance with standardized protocols, including DFG's Staff Report on Burrowing Owl*

Mitigation (DFG 1995), and NBHCP requirements. If an occupied nest burrow is found, an appropriate buffer that minimizes potential for disturbance of the nest shall be determined by the biologist, in coordination with DFG. No project activities shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active or the birds are not dependent on it. Monitoring shall be conducted by a qualified biologist to ensure that project activity does not result in detectable adverse effects on the nesting pair or their young. The size of the buffer may vary, depending on the nest location, nest stage, construction activity, and monitoring results. If implementation of the buffer becomes infeasible or construction activities result in an unanticipated nest disturbance, DFG shall be consulted to determine the appropriate course of action.

- *If an occupied burrowing owl burrow that does not support an active nest is found, SAFCA shall develop and implement a relocation plan, in coordination with and subject to approval of DFG and USFWS and consistent with requirements of the NBHCP, DFG's Staff Report on Burrowing Owl Mitigation (DFG 1995), and the Airport Wildlife Hazard Management Plan (WHMP). Relocation is anticipated to occur through passive exclusion of owls from the project site (using one-way doors at the burrow entrances). The owls would then be able to reoccupy the area after construction is complete. Because the project would generally result in temporary disturbance of burrowing owl habitat and conversion from one suitable habitat type to another, no mitigation for temporary burrow or habitat loss would be required.*

P. Impact 4.9-h. Impacts on Successful Implementation of the NBHCP

The proposed project could threaten the viability of populations of certain covered species, reduce the effectiveness of the NBHCP's conservation strategy, and otherwise jeopardize successful implementation of the NBHCP. This impact would be potentially significant. Additionally, if habitat creation and preservation are not effectively implemented, loss of habitat would be a potentially significant impact. Implementation of Mitigation Measure 4.9-h, summarized below and set forth in full in Sections III.I, III.K, III.L, III.M, III.N, and III.O, below, and in Sections II.D and II.E, above, would reduce this impact to a less-than-significant level. Mitigation Measure 4.9-h is hereby adopted and incorporated into the project.

Mitigation Measure 4.9-h: **Ensure that Project Encroachment Does Not Jeopardize Successful Implementation of the NBHCP and Implement Mitigation Measures 4.7-a, 4.8-a, 4.9-a through 4.9-c, and 4.9-e through 4.9-g**

Q. Impact 4.10-a. Potential Changes to Elements of Reclamation District 1000 and Rural Landscape District

RD 1000 is a rural historic landscape district and the Phase 3 Project could affect some of the historic elements of the district. This would be a potentially significant impact. Implementation of Mitigation Measure 4.10-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.10-a: **Incorporate Mitigation Measures to Documents Regarding Any Elements Contributing to RD 1000 and Rural Landscape District and Distribute the Information to the Appropriate Repositories**

The management of the cultural resources that constitute the contributing elements of RD 1000 is governed by the PA (Appendix D). Because the elements of the RD 1000 historic landscape district have already been recorded, a new inventory of these resources is not required under Stipulation IV(A) of the PA. After an APE has been determined per Stipulation III(C), a qualified architectural historian shall determine if contributing elements of the district are present in the APE. If contributing elements are present, the architectural historian shall update records for these resources and evaluate those elements to determine if they still retain integrity. Because much of the Natomas Basin has been developed, it is possible that changes to the setting have diminished the integrity and thus eligibility of contributing elements in the APE. If the elements in the APE retain eligibility, the architectural historian shall make a finding of effect.

If there is an adverse effect to a contributing element (under Section 106) or a significant impact on the resource's integrity as an historical resource (under CEQA), the architectural historian shall review existing HAER documentation and determine whether any augmentation of this documentation is needed. The original documentation for the American River Watershed Project (completed in 1997) contemplated changes to the setting of the district and thus provided comprehensive documentation to record the district before urbanization (Peak & Associates 1997). It is possible that this original documentation adequately recorded and preserved records of the elements that may be affected. If this documentation is not sufficient for adversely affected and contributing elements, SAFCA shall prepare an HPTP stipulating additional HAER documentation, or other similar treatment as required under Stipulation V(A). After consultation with USACE and the SHPO, SAFCA shall implement the required documentation. Any additional documentation that is needed shall be prepared and distributed to appropriate public repositories.

R. Impact 4.11-a. Disturbance of Unknown Unique Paleontological Resources during Earthmoving Activities

Construction-related activities have the potential to encounter and damage or destroy unique paleontological resources. This impact would be potentially significant. Implementation of Mitigation Measure 4.11-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.11-a: **Conduct Construction Personnel Training and, if Paleontological Resources Are Found, Stop Work Near the Find and Implement Mitigation in Coordination with a Professional Paleontologist**

Before the start of construction and/or borrow activities in the Riverbank Formation or the Modesto Formation, construction personnel involved with earthmoving activities shall be informed by SAFCA of the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction activities, and the proper notification procedures should fossils be encountered. This worker training may be either (1) prepared and presented by an experienced field archaeologist at the same time as construction worker education on cultural resources, or (2) prepared and presented separately by a qualified paleontologist.

If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately stop work in the vicinity of the find. SAFCA shall retain a qualified paleontologist to evaluate the resource and prepare a mitigation plan in accordance with SVP guidelines (1995). The mitigation plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations made by the paleontologist, in consultation with SAFCA, shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

S. Impact 4.12-b. Temporary Increase in Traffic Hazards on Local Roadways

The Phase 3 Project would cause a combination of a high volume of slow-moving truck traffic, potentially tracking mud and debris onto roadways, workers entering and exiting construction site, periodic road and lane closures associated with levee improvements, and potential damage to pavement that would increase traffic hazards on local roadways during the construction period. This impact would be significant. Implementation of Mitigation Measure 4.12-b, summarized below and set forth in full in Section II.I, above, would reduce this impact to a less-than-significant level. Mitigation Measure 4.12-b is hereby adopted and incorporated into the Phase 3 Project.

Mitigation Measure 4.12-b*:* Implement Mitigation Measure 4.12-a, "Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips"

SAFCA and its primary contractors for engineering design and construction shall implement Mitigation Measure 4.12-a, above.

T. Impact 4.12-c. Temporary Disruption of Emergency Service Response Times and Access

The Phase 3 Project would result in increased traffic on local roadways and temporary road closures, both of which could lead to delays in emergency service response times. This impact would be potentially significant. Implementation of Mitigation Measure 4.12-c, summarized below and set forth in full in Section II.I, above, would reduce this impact to a less-than-significant level. Mitigation Measure 4.12-c is hereby adopted and incorporated into the Phase 3 Project.

Mitigation Measure 4.12-c: Notify Emergency Service Providers about Project Construction and Maintain Emergency Access or Coordinate Detours with Providers

SAFCA and its primary contractors for engineering design and construction shall implement Mitigation Measure 4.12-a, above.

U. Impact 4.15-a. Long-Term Disruption of Recreational Activities and Facilities

Construction of the Phase 3 Project would cause temporary disruption to recreational facilities, including the Ueda Parkway bicycle trail and the Elkhorn Boat Launching Facility.

This impact would be significant. Implementation of Mitigation Measure 4.15-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.15-a: **Prepare and Implement a Bicycle Detour Plan for all Bicycle Trails and On-street Bicycle Routes, Including the Ueda Parkway Trail and Garden Highway, Provide Construction Period Information on Recreational Facility Closures and Detours, Provide Detours for Bicycle Facilities, and Coordinate with Recreation Agencies to Allow Them to Repair Damage to Recreational Facilities**

SAFCA shall implement the following measures to reduce temporary, short-term construction impacts on recreational opportunities in the project area:

- *Before the start of construction, prepare a bicycle detour plan for all bicycle paths and on-street bicycle routes, including the Ueda Parkway Bicycle Trail and Garden Highway, in consultation with the County and/or City of Sacramento Bicycle and Pedestrian Coordinator as applicable. The detour plan shall include posted signs clearly indicating closure points, detour routes, roadway markings to designate temporary bike lanes, and informational signs to notify motorists to share the roads with bicyclists. Signs shall be posted at major entry points for bicycle trails and routes to notify users of closure points and detours. The detour plan shall be in place before the start of construction and shall be maintained and implemented throughout the construction period.*

- *Provide construction period information on recreational facility closures and detours.*

- *Upon completion of the levee improvements, coordinate with the City and/or County (where applicable) for the City and/or County (where applicable) to restore access and repair any construction related damage to recreational facilities, including the Ueda Parkway bicycle trail.*

V. Impact 4.15-b. Temporary Changes in Recreational Opportunities during Project Construction Activities

Access to and quality of various recreational activities would be temporarily worsened by project construction. This impact would be significant. Implementation of Mitigation Measure 4.15-b, summarized and set forth in part below and in part in Section III.U, above, would reduce this impact to a less-than-significant level. Mitigation Measure 4.15-b is hereby adopted and incorporated into the Phase 3 Project.

Mitigation Measure 4.15-b: Provide Construction Period Information on Recreational Facility Closures and Detours and Provide Detours for Access Routes to Alternate Boat Launch Ramps and Marinas

SAFCA shall implement Mitigation Measure 4.15-a and the following measure to reduce construction impacts on recreational opportunities in the project area:

- *Provide public information through the media and on SAFCA's Web site regarding detours and alternative access routes to public and private recreational facilities affected by project construction. SAFCA shall coordinate with the City of Sacramento Recreation and Parks Department to make available information to the public regarding closure of public recreational facilities, detours and alternate sites available.*

W. Impact 4.17-a. Potential Temporary Disruption of Irrigation Water Supply

The Phase 3 Project's extensive construction activities have the potential to impede the repair of damaged irrigation facilities and cause a delay in the provision of irrigation water supply. This impact would be potentially significant. Implementation of Mitigation Measure 4.17-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.17-a: Coordinate with Irrigation Water Supply Users Before and During All Irrigation Infrastructure Modifications and Minimize Interruptions of Supply

SAFCA and its primary contractors for engineering design and construction shall ensure that the measures listed below are implemented to minimize the potential for irrigation water supply interruptions during construction activities. Upon selection of borrow sites within the Elkhorn Borrow Area, coordination similar to that listed below shall be required before irrigation interruption.

- *Coordinate the timing of all modifications to irrigation supply infrastructure with the affected infrastructure owners and water supply users, either directly or through NCMWC.*
- *Include detailed scheduling of the phases of modifications/replacement of existing irrigation infrastructure components in project design and in construction plans and specifications.*
- *Plan and complete modifications of irrigation infrastructure for the nonirrigation season to the extent feasible.*
- *Provide for alternative water supply, if necessary, when modification/replacement of irrigation infrastructure must be conducted during a period when it would otherwise be in normal use by an irrigator.*
- *Ensure either that (1) users of irrigation water supply do not, as a result of physical interference associated with the project, experience a substantial interruption in irrigation supply when such supply is needed for normal, planned farming operations (i.e., a decrease in level of service in comparison with the existing level of service), or (2) users of irrigation water supply that experience a substantial decrease in an existing level of service that meets the established standards for the project area are compensated in kind for losses associated with the reduction in level of service.*

X. Impact 4.17-b. Potential Disruption of Utility Service

Project implementation would encroach on multiple types of utility equipment and facilities. Service interruptions could occur. This impact would be potentially significant. Implementation of Mitigation Measure 4.17-b, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.17-b: **Verify Utility Locations, Coordinate with Utility Providers, Prepare and Implement a Response Plan, and Conduct Worker Training with Respect to Accidental Utility Damage**

Before construction begins, SAFCA and its primary contractors shall coordinate with USACE, the CVFPB, and applicable utility providers to implement orderly relocation of utilities that need to be removed or relocated. Power poles relocations shall be coordinated with SMUD and SACDOT to avoid conflicts with the SACDOT-proposed bike/pedestrian path. Existing main electrical power transmission lines and poles on the water side of the existing Garden Highway levee that do not need to be relocated or replaced to accommodate the project may be left in place. No new main electrical power transmission lines and poles shall be installed on the water side of Garden Highway. Consistent with sound engineering practices that prioritize the following, individual service lines shall: (1) use existing configurations and facilities, and (2) any new poles shall be placed on the land side of Garden Highway, subject to the approval of USACE, the CVFPB, and any other regulatory public agencies and utility companies.

Notification of any potential interruptions in service shall be provided to the appropriate agencies and affected landowners.

Before the start of construction, utility locations shall be verified through field surveys and the use of the Underground Service Alert services. Any buried utility lines shall be clearly marked in the area of construction on the construction specifications in advance of any earthmoving activities.

Before the start of construction, a response plan shall be prepared to address potential accidental damage to a utility line. The plan shall identify chain of command rules for notification of authorities and appropriate actions and responsibilities to ensure the safety of the public and workers. Worker education training in response to such situations shall be conducted by the contractor. The response plan shall be implemented by SAFCA and its contractors during construction activities.

Utility relocations shall be staged to minimize interruptions in service.

Additionally, upon borrow site selection within the Elkhorn Borrow Area, further verification of utility locations, coordination with utility providers, preparation and implementation of a response plan, and any required construction worker training with respect to accidental utility damage shall be completed before any earth-moving activities take place.

Y. Impact 4.18-b. Exposure to Hazardous Materials Encountered at Project Sites

Within the Phase 3 Project footprint there are a variety of environmental concerns and Recognized Environmental Conditions, which indicate the existence or likely existence of a

hazardous substance impacting a property. Construction activities could therefore result in public health hazards. This impact would be potentially significant. Implementation of Mitigation Measure 4.18-b(1) and Mitigation Measure 4.18-b(2), set forth below, which are hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.18-b(1)*:* **Complete Recommendations Included in Phase I and/or II ESAs and Implement Required Measures**

Before the start of any construction activities, SAFCA shall ensure that all recommendations from the Kleinfelder Phase I ESA, listed below, are implemented by the property owner in compliance with applicable rules and regulations:

The Yuki Pear Farm (APN 201-0150-033):

- *Conduct further investigation and implement all feasible remedial actions recommended in the Phase II ESA.*
- *Consult with the Sacramento County Environmental Management Department regarding any hazardous materials actions that may be necessary during future use of the site.*
- *Continue sampling from monitoring wells on a quarterly basis.*
- *Stockpile and sample soil for dichloro-diphenyl-trichloroethane (DDT) and dichlorodiphenyldichloroethylene (DDE) before removal.*

Dunmore Borrow Site (APN 201-0120-031):

- *Properly abandon wells, in accordance with applicable Federal, state, and local requirements, if found within the site and determined to be no longer needed.*

Brookfield Borrow Site (APN 35-080-021):

- *Properly dispose of buckets containing waste found on-site at a licensed disposal facility.*

APNs 201-0150-040, 201-0150-041, 201-0150-042:

- *Obtain requirements from DOGGR for construction activities near the dry hole.*
- *Investigate the presence of an underground conveyance pipeline that may be present on the Shell Oil easement and if found, coordinate with the owner to avoid or minimize impacts on said pipeline during construction activities, or relocate the pipeline if it is determined to be necessary.*

APNs 201-0150-055, 201-0140-059:

- *Consult with DOGGR and the gas well lease holder if the idle gas well would be disturbed during construction activities; if so, then implement all recommendations for safe project operations as provided by DOGGR following the initial consultation.*
- *Confirm the presence of water wells and septic systems and perform appropriate actions to abandon them in accordance with state and local requirements.*

APN 201-0270-028:

- *Complete a Phase II ESA to determine the presence of lead contamination associated with petroleum products.*
- *Determine if the former USTs are located on site, and if they have been properly abandoned and/or removed.*

APN 201-0270-048:

- *Complete a Phase II ESA to determine if the damaged automotive battery observed on site has contaminated soil.*

APN 201-0280-037:

- *Determine if a 100-gallon UST is located on site. If it exists, confirm proper abandonment practices.*

APN 201-0280-044:

- *Complete a Phase II ESA to determine elevated concentrations of chemicals remain on site.*

Sites with Historical Agricultural Use:

- *Conduct a limited sampling program (Phase II ESA) to analyze concentrations of organochlorine pesticides, organophosphorous pesticides, chlorinated herbicides, and selected metals residues.*

- *Investigate presence and location of asbestos-containing irrigation pipes.*

- *Implement all feasible remedial action recommendations contained in the Phase II ESA.*

Mitigation Measure 4.18-b(2)*:* Complete Investigations Related to the Extent to Which Soil and/or Groundwater May Have Been Contaminated in Areas Not Covered by the Phase I and II ESAs and Implement Required Measures

SAFCA shall implement the measures described below in coordination with the property owner.

- *Conduct Phase I ESAs, and if necessary, Phase II ESAs, and/or other appropriate testing and include, as necessary, analysis of soil and/or groundwater samples for the potential contamination sites that have not yet been covered by previous investigations before construction activities begin. Similar appropriate testing for borrow sites selected within the Elkhorn Borrow Area shall be completed before any earth-moving activities. Recommendations in the Phase I and II ESAs to address any contamination that is found shall be implemented before initiating ground-disturbing activities in these areas.*

- *Implement the following measures before ground-disturbing or demolition activities begin within each project phase to reduce health hazards associated with potential exposure to hazardous substances:*

  - *Prepare a site plan that identifies any necessary remediation activities appropriate for proposed land uses, including excavation and removal of on-site contaminated soils, and redistribution of clean fill material on the project site. The plan shall include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site. In the event that contaminated groundwater is encountered during site excavation activities, the contractor shall report the contamination to the appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The contractor shall be required to comply with the plan and applicable Federal, state, and local laws. The plan shall outline measures for specific handling and reporting procedures for hazardous materials and disposal of hazardous materials removed from the site at an appropriate off-site disposal facility.*

- *Retain a licensed contractor to remove all underground storage tanks and stained soils associated with debris piles, in accordance with applicable Federal, state, and local regulations.*

- *Retain a licensed contractor to remove and dispose of all asbestos cement pipe found within the project area in accordance with applicable Federal, state, and local regulations.*

- *Retain a licensed contractor to remove all septic systems in accordance with applicable Federal, state, and local regulations.*

- *Retain an asbestos consultant who is certified by the California Occupational Safety and Health Administration (Cal/OSHA). The asbestos consultant shall investigate whether any asbestos-containing materials or lead-based paints are present before demolition of any on-site buildings. If any materials containing asbestos or lead are found, they shall be removed by an accredited contractor in accordance with U.S. Environmental Protection Agency and Cal/OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal/OSHA asbestos and lead worker construction standards. The materials containing asbestos and lead shall be disposed of properly at an appropriate off-site disposal facility.*

- *Obtain an assessment conducted by the Pacific Gas and Electric Company pertaining to the contents of the existing pole-mounted transformers located within the project area. The assessment shall determine whether existing on-site electrical transformers contain polychlorinated biphenyls (PCBs) and whether there are any records of spills from such equipment. If equipment containing PCB is identified, the maintenance and/or disposal of the transformer shall be subject to the regulations of the Toxic Substances Control Act under the authority of the Sutter County Environmental Health Division and Sacramento County Environmental Management Department.*

- *Notify the appropriate Federal, state, and local agencies if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during construction activities. Any contaminated areas shall be cleaned up in accordance with recommendations made by the Sutter County Environmental Health Division, Sacramento Environmental Management Department, Central Valley Regional Water Quality Control Board, California Department of Toxic Substances Control, or other appropriate Federal, state, or local regulatory agencies as generally described above.*

Z. Impact 4.18-c. Interference with an Adopted Emergency Evaluation Plan

The Phase 3 Project would increase traffic on local roads and lead to occasional road closures. This could interfere with the use of the main roadways for emergency evacuation. This impact would be significant. Implementation of Mitigation Measure 4.18-c, summarized below and set forth in full in Section II.I, above, would reduce this impact to a less-than-

significant level. Mitigation Measure 4.18-c is hereby adopted and incorporated into the Phase 3 Project.

Mitigation Measure 4.18-c: Notify State and Local Emergency Management Agencies about Project Construction and Coordinate Any SR 99/70 Detours with these Agencies to Ensure That Any Need for Emergency Use Is Not Significantly Impaired

SAFCA shall implement Mitigation Measure 4.12-a to avoid impairment of the use of SR 99/70 as an emergency evacuation route.

AA. Impact 4.18-d. Hazardous Emissions or Handling of Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School

As there are schools in the vicinity, construction of the Phase 3 Project would involve use of potentially hazardous materials, and undocumented contamination may be discovered during construction, the potential exists for exposure to hazardous materials within one-quarter mile of a school. This impact would be significant. Implementation of Mitigation Measure 4.18-d, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.18-d: Notify the Twin Rivers Unified School District and Applicable Schools with Jurisdiction within One-Quarter Mile of Project Construction Activities

SAFCA shall provide written notification of the project to each of the affected schools and the Twin Rivers Unified School District within 30 days prior to certification of the EIS/EIR and shall consult with the Twin Rivers Unified School District regarding the potential impacts on schoolchildren from hazards associated with project implementation.

BB. Impact 4.19-a. Temporary Aircraft Safety Hazards Resulting from Project Construction Activities within or near the Airport Critical Zone

Portions of the Phase 3 Project footprint are within the Airport Critical Zone. Night lighting of construction areas could create a safety hazard related to aircraft landings. This impact would be significant. Implementation of Mitigation Measure 4.19-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.19-a: Coordinate Work in the Critical Zone with Airport Operations and Restrict Night Lighting within and near the Runway Approaches

SAFCA and its primary construction contractors shall ensure that the following mitigation is implemented to avoid interference of construction activities with Airport operations.

- *No borrow activities shall be conducted within the Airport Critical Zone during nighttime hours.*

- *All project-related nighttime lighting that is in, or is aligned with, the Airport runway approach zones (Sacramento River east levee Reaches 5A–9B) shall be directed downward to avoid potential interference with nighttime aircraft operations.*

- *SAFCA shall ensure that the SCAS is informed in advance of the timing and nature of all construction activities within the Airport Critical Zone, and shall coordinate with SCAS during final project design to ensure that all appropriate safety precautions within the Critical Zone are incorporated into the construction plans. Additionally, requirements provided by the FAA, not incorporated into this document, shall be followed.*

- *SAFCA shall submit the FAA form 7460-1, Notice of Proposed Construction or Alteration, which notifies the FAA of construction or alteration that might affect navigable airspace. This form must be submitted to the FAA at least 30 days before the earlier of the following dates: (1) the date the proposed construction or alteration is proposed to begin, or (2) the date an application for a construction permit is to be filed.*

CC. Impact 4.20-a. Potential Exposure to Wildland Fires

Project components would be constructed in locations where physical and weather conditions may combine to lead to a high risk of fire hazard. Construction equipment or construction practices could ignite fires that may result in wildland fires. This impact would be significant. Implementation of Mitigation Measure 4.20-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.20-a*:* Prepare and Implement a Fire Management Plan to Minimize Potential for Wildland Fires

SAFCA and its primary contractors for engineering design and construction shall prepare and implement a fire management plan in coordination with the appropriate emergency service and/or fire-suppression agencies of the applicable local jurisdictions before beginning project construction. The plan shall describe fire prevention and response methods, including fire precaution, presuppression, and suppression measures that are consistent with the policies and standards of the affected jurisdictions. All materials and equipment required for implementation of the plan shall be maintained on-site. All construction personnel shall be made familiar with the contents of the plan before construction activities begin. The plan shall be amended, as appropriate, upon selection of borrow sites within the Elkhorn Borrow Area.

DD. Impact 4.21-a. Potential to Have a Disproportionately High and Adverse Environmental Impact On Any Minority Or Low-Income Population

The Phase 3 Project could result in disturbance or damage to cultural resources of importance to the Native American community, while the Native American community would

not receive a proportionate benefit from the flood damage reduction provided by the Phase 3 Project. This impact would be significant. Implementation of Mitigation Measure 4.21-a, set forth below, which is hereby adopted and incorporated into the Phase 3 Project, would reduce this impact to a less-than-significant level.

Mitigation Measure 4.21-a: Increase the Direct Benefits of the Project for the Ancestors of the Native American Tribes

As part of the Phase 3 Project, SAFCA proposes to acquire various properties in the Natomas Basin as compensation for the project's potential impacts, as required under Federal and state laws. As part of the process for restoring these lands, SAFCA shall implement the following measures to address environmental justice and increase the direct benefits to the ancestors of the Native American tribes that would bear disproportionate adverse effects:

- *consult with appropriate Native American representatives to identify plant species of value for traditional cultural uses;*
- *consult with Native American representatives to identify traditional cultural activities that could occur on these lands, consistent with habitat conservation and safety objectives;*
- *to the extent feasible, include identified plant species in the planting palettes developed for habitat conservation;*
- *to the extent feasible, establish easements or other protective measures on these properties that include access for appropriate Native American representatives for plant gathering and other traditional cultural activities; and*
- *where feasible, also provide access to appropriate Native American representatives to the river front on acquired parcels that have access to the Sacramento River, provided that access does not permit the construction of physical structures on the levee, beaches, or in the river without prior approval from the appropriate regulatory agency.*

IV. LESS-THAN-SIGNIFICANT IMPACTS

The FEIR identifies the following less-than-significant impacts. Mitigation to further reduce less-than-significant impacts is not required by CEQA.

A. Impact 4.2-a. Inconsistency with Airport Master Plan, Airport Land Use Compatibility Plan, and Airport Wildlife Hazard Management Plans

The Phase 3 Project would not conflict with the implementation of the adopted Airport Master Plan, ALUCP, or Airport Wildlife Hazard Management Plans. The project would be consistent with these plans, thus the impact would be less than significant, and therefore no mitigation is required.

Mitigation Measure: No mitigation is required.

B. Impact 4.4-a. Hydraulic Impacts on Other Areas and Exposure to Flood Risk

The Phase 3 Project would not have a significant adverse hydraulic impact on the Sacramento River Flood Control Project. Because the project would replace or upgrade existing levees using up-to-date design and construction standards, it would substantially reduce the risk of flooding of the Natomas Basin. This impact would be less than significant (beneficial), and therefore no mitigation is required.

Mitigation Measure: No mitigation is required.

C. Impact 4.4-c. Effects on Groundwater

The construction of cutoff walls could restrict the movement of groundwater, but the evaluation of potential groundwater impacts prepared by Luhdorff & Scalmanini Consulting Engineers indicates that the cutoff walls are not expected to cause any substantial decrease in groundwater levels or well yields or to cause any increase in pumping costs. However, wells less than 80 feet deep located within 500 feet of the NEMDC west levee could experience a small decrease in yield. Excavation and reclamation of the Brookfield borrow site would have an indirect, beneficial effect on groundwater levels because the site would be irrigated with surface water instead of groundwater after reclamation. This impact would be less than significant. Implementation of Mitigation Measure 4.4-c, which is hereby adopted and incorporated in the Phase 3 Project, would further reduce this impact by ensuring that any well for which the yield is measurably reduced is retrofitted or replaced to provide preconstruction yields.

Mitigation Measure 4.4-c*:* Monitor Landside Production Wells along the NEMDC for Effects on Yield, and Remediate Effects if Necessary

SAFCA shall implement a program to monitor groundwater elevations within 500 feet of the NEMDC west levee to determine what effects, if any, occur on the yield of shallow domestic wells following installation of cutoff walls in this area of the NLIP. In the event that the yield of any of these wells is measurably reduced, SAFCA shall arrange with the owners of affected wells to retrofit or replace these wells to provide pre-construction yields.

D. Impact 4.6-c. Interference with the Migration of Migratory Fish Species through the Creation of Attraction Flows at the RD 1000 Pumping Plant No. 2 Outfall and Drainage Outlets

There is the potential that the flows from Pumping Plant No. 2 and/or drainage outfalls would have olfactory cues and create velocity gradients that could attract anadromous salmonids to attempt to swim up the water discharge. If these fish become attracted to the flows from the outfall pipes, there is a potential to cause migration delays. However, because salmonids imprint on olfactory cues particular to their stream of origin, the probability of flows from the pump or drainage outfalls interfering with migrations is low. Therefore, implementation of the Phase 3 Project would likely not result in substantial interference with the movement of native resident or

migratory fish species. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

E. Impact 4.9-d. Impacts on Giant Garter Snake Related to Operational Activities of RD 1000's Pumping Plant No. 2

Although aquatic fauna swimming near the intake structure of the pumping plant could potentially be trapped by the intake velocities, the giant garter snake would likely avoid the area and could rely on its strong swimming skills to avoid entrapment. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

F. Impact 4.10-b. Potential Changes to Other Known Historic-Era Resources from Ground Disturbance or Other Construction-Related Activities

Although some historic-era structures are present within the footprint of the Phase 3 Project, none of them are associated with important historic themes, stylistic values, or data potential. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

G. Impact 4.13-b. General Conformity with the Applicable Air Quality Plan

Modeling indicates that all project emissions, with implementation of mitigation identified under Impact 4.13-a, would be below applicable de minimis standards. Construction is not anticipated to conflict with implementation of the SIP. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

H. Impact 4.13-c. Long-Term Changes in Emissions of ROG, NO_x, and PM_{10} Associated with Project Implementation

Long-term project operations would not result in increased regional emissions of ROG, NO_x, or PM_{10}, the operation of any new major stationary emission sources, or any violation of applicable air quality standards. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

I. Impact 4.13-d. Exposure of Sensitive Receptors to Toxic Air Emissions

Although the Phase 3 Project would result in mobile and stationary emissions of diesel PM, which is identified by the Air Resources Board as a TAC, these emissions would not result

in the exposure of sensitive receptors to substantial concentrations of TACs. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

J. Impact 4.14-d. Long-Term Increases in Project-Generated Noise

The proposed replacement of RD 1000 Pumping Plant No. 2 would involve the long-term operation of noise-generating stationary equipment. Operational noise levels associated with the proposed pumping station improvements would be in compliance with applicable performance standards at nearby receptors. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

K. Impact 4.14-e. Exposure of People Working in the Project Area to Excessive Airport Noise Levels

Assuming that construction areas fall within the category of industrial and manufacturing land uses, the airport-generated noise at project construction areas would not exceed the recommend land use compatibility standards. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

L. Impact 4.17-c. Increases in Solid Waste Generation

There would be no long-term generation of solid waste associated with project operation. Project construction and operation would not cause existing regional landfill capacity to be exceeded. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

M. Impact 4.18-a. Accidental Spills of Hazardous Materials

Project-related construction and maintenance would involve the use of potentially hazardous materials, but compliance with applicable regulations will ensure that the risk of significant hazards associated with their transport, use, and disposal is low. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

N. Impact 4.19-b. Potential for Higher Frequency of Collisions between Aircraft and Wildlife at Sacramento International Airport

The Phase 3 Project includes features designed to further reduce potentially hazardous wildlife attractants within the Airport Critical Zone by reducing open water and agricultural crops in this area and shifting woodlands to outside the Airport Critical Zone. Wildlife collisions

with aircraft are not expected to increase, and could decrease. This impact would be less than significant. Therefore, no mitigation is required.

Mitigation Measure: No mitigation is required.

V. ALTERNATIVES

The FEIR analyzed two alternatives at an equal level of detail as the Phase 3 Project: the Proposed Action [Adjacent Setback Levee], the No-Action Alternative, and the Levee Raise-in-Place Alternative. The feasibility of each of these alternatives is determined below.

A. No-Action Alternative

Consideration of a no-project alternative is required under CEQA. The No-Action Alternative (described more fully in the DEIS/DEIR on pages 2-9 through 2-14) consists of the conditions that would be reasonably expected to occur in the foreseeable future if no additional permissions to alter the existing levees or discharge dredged or fill material into waters of the United States would be granted. Under the No-Action Alternative, USACE would not issue permits and permissions under Sections 408, 404, or 10 for SAFCA to undertake the Phase 3 Project. Given the known deficiencies in the Natomas Basin perimeter levee system and its inclusion as part of the Federal flood damage reduction system, however, it can be assumed that USACE and/or the State of California would repair the Natomas levee system at some time in the future to meet the Federal and/or State flood risk reduction objectives associated with the Federal flood damage reduction system. The earliest that Federal construction under a Congressionally reauthorized USACE project could begin would be 2011 or 2012. Therefore, it is assumed that USACE and/or the State of California would begin repairs on the Natomas Basin levee system in 2011, at the earliest, and would complete the improvements providing 100-year flood protection no sooner than 2013. In the period before implementation of flood damage reduction measures for the Natomas Basin, there would remain a high potential for a major levee failure and flooding.

The No-Action Alternative analyzed in the DEIS/DEIR consists of two components: No Project Construction and Potential Levee Failure. “No Project Construction” refers to the impacts that would result because no flood damage reduction measures would be constructed. “Potential Levee Failure” refers to the impacts that could occur if the Natomas Basin perimeter levee system failed.

1. No Project Construction

This scenario consists of the conditions that would likely prevail in the Natomas Basin if no action at all were taken by SAFCA, the State, or USACE to further improve the Basin’s perimeter levee system beyond the accomplishments of the Sacramento Urban Levee Reconstruction Project and the North Area Local Project (NALP) and NLIP Phase 1 and Phase 2 Projects. Under this scenario key segments of this system would continue to provide less than 100-year flood protection, and the entire Natomas Basin would be permanently designated as a special flood hazard area subject to development restrictions and mandatory flood insurance requirements pursuant to the regulations of the National Flood Insurance Program (NFIP).

SAFCA would not provide the Natomas Basin with at least a 100-year level of flood protection by the end of 2010 and would not be able to facilitate achieving a "200-year" level of protection by the end of 2012. The Airport may be compelled to operate within its existing footprint, abandoning its current plans for modernization and expansion; alternatively, the Airport may construct its own limited flood damage reduction structure (i.e., a ring levee) to protect existing facilities and its expansion area. The special flood hazard designation in the Natomas Basin would interrupt the regional blueprint for future (2030) growth adopted by the Sacramento Area Council of Governments (SACOG) and Valley Vision in 2006. Up to 60,000 dwelling units and associated commercial and industrial developments that the blueprint anticipates will be located in the Natomas Basin would be need to be redirected to other areas in the region over the next two decades. The Basin's existing residential, commercial, and industrial structures and their contents, with a replacement value of approximately $8.2 billion, or approximately $7.2 billion if the Airport facilities are excluded, would remain subject to a relatively high risk of flooding. The risk of environmental damage resulting from flooding in the urbanized portion of the Basin would remain relatively high.

2. Potential Levee Failure

Without additional improvements to the Natomas perimeter levee system, wind and wave run-up or seepage conditions could cause portions of this system to fail, triggering widespread flooding and extensive damage to the Basin's existing residential, commercial, agricultural, and industrial structures. Extensive damage to utilities, roadways, and other infrastructure systems would also likely occur. The magnitude of the flood damage would depend upon the location of the levee breach, severity of the storm, and river flows at the time of a potential levee failure.

3. Conclusion Regarding No-Action Alternative

This alternative would fail to meet the Phase 3 Project's basic objectives. Furthermore, the risk of a levee failure would remain high, resulting in the potential for multiple unavoidable significant adverse effects on environmental resources. For the foregoing reasons, the No-Action Alternative is hereby rejected as infeasible.

B. Levee Raise-in-Place Alternative

All elements of the Levee Raise-in-Place Alternative (described more fully in the DEIS/DEIR on pages 2-33 through 2-37) would be the same as for the Phase 3 Project except for levee raising and seepage remediation with respect to the Sacramento River east levee in Reaches 5A–9B and removal of encroachments from the Sacramento River east levee. Improvements to the PGCC west levee, the NEMDC west levee, and landscape and irrigation/drainage system modifications would be similar under the Phase 3 Project and the Levee Raise-in-Place Alternative.

The Levee Raise-in-Place Alternative differs from the Phase 3 Project in that it would result in (1) removal of waterside trees along the Sacramento River east levee to conform with USACE guidance regarding levee encroachments, and (2) loss of waters of the United States due to the implementation of erosion control improvements along the waterside toe of Sacramento

River east levee. These effects would require a different compensation strategy than for the Phase 3 Project.

In terms of flood reduction system design, the Phase 3 Project and the Levee Raise-in-Place Alternative differ in terms of how they would achieve the required levee height increases along the Sacramento River east levee. Therefore, the differences between the Phase 3 Project and the Levee Raise-in-Place Alternative, including effects on habitats, are the result of these Sacramento River east levee design differences.

The Levee Raise-in-Place Alternative could result in significant and unavoidable effects on shaded riverine aquatic habitat function associated with the removal of as much as 22.5 acres of riparian vegetation on the water side of the Sacramento River east levee in order to conform with USACE guidance regarding levee encroachments (USACE 2000), whereas the Phase 3 Project would require removal of only one acre of riparian vegetation. Removal of this vegetation would likely result in the loss of a substantial amount of nesting habitat for Swainson's hawk and adverse impacts to fish. In addition, the Levee Raise-in-Place Alternative would require levee degradation (to accommodate installation of the proposed cutoff walls) and reconstruction of the existing Garden Highway in accordance with currently applicable roadway standards, which is not required for the Phase 3 Project. The resulting closure of Garden Highway would result in severe access and traffic delays. Construction of the adjacent levee under the Phase 3 Project would preclude the need for extensive vegetation removal and extensive roadway reconstruction, and thus would avoid these impacts.

In summary, a greater number of significant and unavoidable impacts would result from implementation of the Levee Raise-in-Place Alternative compared to the Phase 3 Project. For the foregoing reasons, the Levee Raise-in-Place Alternative is hereby rejected as infeasible.

VI. STATEMENT OF OVERRIDING CONSIDERATIONS

The Board has balanced the benefits of the Phase 3 Project against its unavoidable environmental risks in determining whether to approve the project, and has determined that the benefits of the project outweigh the unavoidable adverse environmental effects. The reasons set forth below are based on the FEIR and other information in the record.

A. Because of unique topographical and meteorological features, the Sacramento River basin, including its major tributaries, the Feather and American Rivers, is capable of producing significantly higher peak flood discharge per square mile of drainage area than any other major river basin in the United States.

B. The 1986 flood, the largest flood ever recorded for the Sacramento and American Rivers, triggered a major reevaluation of Sacramento's flood control system by the United States Army Corps of Engineers, which identified deficiencies in the flood control system protecting Sacramento. Although substantial flood protection effort has been undertaken since 1986, large portions of the Sacramento metropolitan area remain at high risk (having less than 100-year flood protection) or at moderate risk (having greater than 100-year but less than 200-year flood protection) of flooding.

C. There is an immediate need to protect the people and property at risk in the project area. The Natomas Basin floodplain is occupied by over 83,000 residents and $10 billion in damageable property. This area is presently vulnerable to flooding in a less than 100-year flood event along the Sacramento River or American River. Uncontrolled flooding in the Natomas Basin floodplain in a flood exceeding a 100-year event could result in $7 billion in damage. Depending on the circumstances, flood depths in the Natomas basins could reach life-threatening levels. Flooding would also result in releases of toxic and hazardous materials, groundwater contamination, and possible damage to the metropolitan power grid. The disruption in transportation that would result from a major flood would affect the Sacramento International Airport, interstate and state highways, and rail service. The day-to-day functioning of the state capital also would be significantly affected.

D. In recognition of the significant flood risk still remaining in the Sacramento area, Congress authorized the most significant package of improvements to Sacramento flood control system since the construction of Folsom Dam in 1956 as part of the Water Resource Development Act of 1999, including the improvements to the NCC south levee.

E. The project will help maximize public safety along the lower American and Sacramento Rivers and their tributaries in the Sacramento region. Specifically, the project will improve the levee system in the Natomas Basin and make related landscape modifications and drainage and infrastructure improvements.

F. The project would significantly reduce the risk of an uncontrolled flood in the Natomas Basin that would result in a catastrophic loss of property (estimated at $7 billion) and a prolonged interruption of commercial activity, including the operation of Sacramento International Airport and closure of Interstate 5 and State Route 99/70.

G. By contributing to protection of existing housing stock from destruction due to flood damage, the project will contribute to the maintenance of affordable housing in the region.

H. Several of the significant and unavoidable impacts identified in the FEIR (including construction-related noise, traffic on local roadways, and air emissions) are temporary in duration and will be limited to the construction period.

VII. INCORPORATION BY REFERENCE

The FEIR is hereby incorporated into these Findings in its entirety. Without limitation, this incorporation is intended to elaborate on the scope and nature of the mitigation measures, the basis for determining the significance of impacts, the comparative analysis of alternatives, and the reasons for approving the Phase 3 Project in spite of the potential for associated significant and unavoidable adverse impacts.

VIII. RECIRCULATION NOT REQUIRED

No significant new information was added to the DEIS/DEIR as a result of the public comment process. The FEIR responds to comments, and clarifies, amplifies and makes insignificant modifications to the DEIS/DEIR. The FEIR does not identify any new significant effects on the environment or a substantial increase in the severity of an environmental impact requiring major revisions to the DEIS/DEIR. Therefore, recirculation of the DEIS/DEIR is not required.

IX. RECORD OF PROCEEDINGS

Various documents and other materials constitute the record of proceedings upon which the Board bases its findings contained herein. The record of proceedings is located in the offices of the Clerk of the Sacramento Area Flood Control Agency, 1007 Seventh Street, 7th Floor, Sacramento, California 95814.

X. SUMMARY

A. Based on the foregoing Findings and the information contained in the record, the Board has made one or more of the following Findings with respect to each of the significant environmental effects of the NLIP Landside Improvements Phase 3 Project:

1. Changes or alterations have been required in, or incorporated into, the Phase 3 Project that avoid or substantially lessen the significant environmental effects identified in the FEIR.

2. To the extent that such changes or alterations are within the responsibility and jurisdiction of another public agency and not SAFCA, those changes or alterations have been, or can and should be, adopted by that other agency.

3. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

B. Based on the foregoing Findings and the information contained in the record, it is determined that:

1. All significant effects on the environment due to the approval of the Phase 3 Project have been eliminated or substantially lessened where feasible.

2. Any remaining significant effects on the environment found to be unavoidable are acceptable due to the factors described in the Statement of Overriding Considerations in Section VI, above.

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RESOLUTION 09-059
Adopted by the Sacramento Area Flood Control Agency

CERTIFICATION OF THE ENVIRONMENTAL IMPACT REPORT ON THE NATOMAS LEVEE IMPROVEMENT PROGRAM LANDSIDE IMPROVEMENTS PROJECT – PHASE 3 PROJECT; ADOPTION OF FINDINGS AND A STATEMENT OF OVERRIDING CONSIDERATIONS, MITIGATION MEASURES, AND A MITIGATION MONITORING AND REPORTING PROGRAM; AND APPROVAL OF THE NATOMAS LEVEE IMPROVEMENT PROGRAM LANDSIDE IMPROVEMENTS PROJECT - PHASE 3 PROJECT

WHEREAS, Section 20(c) of the SAFCA Act {Stats.1990, c. 510 (S.B.46), §1.}, finds and declares that a purpose of SAFCA is to coordinate a regional effort to finance, provide, and maintain facilities and works necessary to ensure a reasonable and prudent level of flood protection, as determined by the agency, in developed and urbanizing areas which are designated for residential, commercial, or industrial uses within its boundaries and to provide local assurances and participate in cost sharing for federal flood control projects; and

WHEREAS, Section 52 of the SAFCA Act states that SAFCA shall have as its highest priority the protection of life, property, watercourses, watersheds, and public highways within its boundaries from damage from flood and storm waters; and

WHEREAS, Section 52 of the SAFCA Act further mandates that SAFCA carry out its flood control responsibilities in ways that provide for the optimum protection of the natural environment, especially riparian habitat and natural stream channels suitable for native plant and wildlife habitat and public recreation; and

WHEREAS, the Natomas Levees Improvement Program Landside Improvements Project ("NLIP Landside Improvements Project") consists of improvements to the levee system in the Natomas Basin and related landscape modifications and drainage and infrastructure improvements to reduce the risk of flooding in a significant portion of the Sacramento metropolitan area, thereby implementing a portion of the flood control program analyzed at the program level in the Environmental Impact Report on Local Funding Mechanisms for Comprehensive Flood Control Improvements for the Sacramento Area (State Clearinghouse No. 2006072098) ("Local Funding EIR"); and

WHEREAS, the NLIP Landside Improvements Project was further evaluated in the Environmental Impact Report on the NLIP Landside Improvements Project (State Clearinghouse No. 2007062016) ("2007 Landside EIR"), and consists of elements that were analyzed in the 2007 Landside EIR at a project level (the "Phase 2 Project") and elements that were analyzed at a program level (the "Phase 3 Project" and the "Phase 4 Project"); and

WHEREAS, the Phase 1 Project has been completed; and

WHEREAS, the SAFCA Board of Directors certified the 2007 Landside EIR and approved the Phase 2 Project in November 2007; and

WHEREAS, modifications to the Phase 2 Project were analyzed in the Supplement to the Environmental Impact Report on the Natomas Levee Improvement

Program Landside Improvements Project – Phase 2 Project (State Clearinghouse No. 2007062016 ("Phase 2 SEIR"); and

WHEREAS, the SAFCA Board of Directors certified the Phase 2 SEIR and approved the modifications to the Phase 2 Project in January 2009; and

WHEREAS, the Phase 3 Project would involve improvements to a portion of the Natomas Basin's perimeter levee system in Sutter and Sacramento Counties, California, and associated landscape and irrigation/drainage infrastructure modifications, with a focus on addressing underseepage, riverbank erosion, encroachment, and levee height deficiencies along 4.5 miles of the Sacramento River east levee, 3.2 miles of the Pleasant Grove Creek Canal west levee, and 6.2 miles of the Natomas East Main Drainage Canal west levee; and

WHEREAS, SAFCA has prepared an Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements Project – Phase 3 Project (State Clearinghouse No. 2008072060) ("Phase 3 Project EIR" or "EIR"); and

WHEREAS, the Phase 3 Project EIR is tiered from the Local Funding EIR and the 2007 Landside EIR; and

WHEREAS, the Phase 3 Project is fully described in Chapter 2 of the February 2009 Draft EIS/EIR, as amended by the May 2009 Final EIR; and

WHEREAS, SAFCA desires the Phase 3 Project to provide at least 100-year flood protection as quickly as possible while laying the groundwork to achieve at least "200-year" flood protection over time; to use flood control projects in the vicinity of Sacramento International Airport to facilitate better management of Airport lands that reduce hazards to aviation safety; and to use flood control projects to enhance habitat values by increasing the extent and connectivity of the lands in the Natomas Basin being managed to provide habitat for giant garter snake, Swainson's Hawk, and other special-status species; and

WHEREAS, construction of the Phase 3 Project is scheduled to begin in late summer/fall 2009 and is expected to be completed in 2010, assuming receipt of all required environmental clearances, permits, and approvals for project implementation; and

WHEREAS, the Draft EIS/EIR describing the Phase 3 Project has been circulated for public review, comments have been received and responses issued, and a Final EIR has been prepared; and

WHEREAS, the Final EIR has been presented to the Board and the Board has reviewed and considered the information contained in the Final EIR.

NOW, THEREFORE, BE IT RESOLVED BY THE SACRAMENTO AREA FLOOD CONTROL AGENCY BOARD OF DIRECTORS:

1. The Board hereby finds the foregoing recitals to be true and correct.

2. The Board hereby certifies that the Final EIR for the Phase 3 Project has been completed in compliance with the California Environmental Quality Act, Public Resources Code Section 21000 *et seq.*, and reflects the independent judgment and analysis of SAFCA.

3. The Board hereby adopts the Findings and Statement of Overriding Considerations for the Phase 3 Project, attached hereto as "Exhibit A," including the Statement of Overriding Considerations set forth therein.

4. The Board hereby adopts and incorporates into the Phase 3 Project all of the mitigation measures within the responsibility and jurisdiction of SAFCA that are identified in the Findings.

5. The Board hereby adopts the Mitigation Monitoring and Reporting Program for the Phase 3 Project, attached hereto as "Exhibit B."

6. The Board hereby approves the Phase 3 Project.

ON A MOTION BY Director _____, seconded by Director _____, the foregoing resolution was passed and adopted by the Board of Directors of the Sacramento Area Flood Control Agency, this 21st day of May 2009, by the following vote, to wit:

AYES: Directors:

NOES: Directors:
ABSTAIN: Directors:
ABSENT: Directors:

_____
Chair of the Board of Directors of the
Sacramento Area Flood Control Agency

(SEAL)

ATTEST:

_____
Clerk of the Board of Directors

TNWlr/NLIP Phase 3 EIR Cert Reso 5-21-09 (5 12 09 smw) (2)doc.
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4-23

STATE OF CALIFORNIA
THE RESOURCES AGENCY
CENTRAL VALLEY FLOOD PROTECTION BOARD

RESOLUTION NO. 2010-10

FINDINGS AND DECISION AUTHORIZING ISSUANCE OF
ENCROACHMENT PERMIT NO. 18159-4
SACRAMENTO AREA FLOOD CONTROL AGENCY
NATOMAS LEVEE IMPROVEMENT PROGRAM
SACRAMENTO RIVER EAST LEVEE ("SREL") PHASE 2B, SACRAMENTO COUNTY

WHEREAS, the Sacramento Area Flood Control Agency ("SAFCA") has begun a multi-year Natomas Levee Improvement Program; and

WHEREAS, SAFCA as lead agency under the California Environmental Quality Act, Public Resources Code sections 21000 *et seq*. ("CEQA") prepared an Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements Project ("EIR") (incorporated herein by reference and available at the Central Valley Flood Protection Board offices or SAFCA offices); and

WHEREAS, SAFCA, as lead agency, certified the EIR, adopted mitigation measures and a Mitigation Monitoring Reporting Plan ("MMRP") (incorporated herein by reference and available at the Central Valley Flood Protection Board or at SAFCA), approved findings and a statement of overriding considerations pursuant to CEQA and the CEQA Guidelines (incorporated herein by reference); and approved the Project as identified for the REACH 5A-9B Project; and

WHEREAS, SAFCA submitted Application No. 18159-4 to the Central Valley Flood Protection Board on September 15, 2009 to construct approximately 4.5 linear-miles of adjacent levee on the landside slope of the existing Garden Highway Levee (Reaches 5A-9B, STA 224+00 to 468+00); installing seepage cutoff wall from STA 229+50 to 464+00, ranging in depth from 40 to 115-feet deep; constructing 300-foot seepage berm from STA 228+00 to 232+50 and from 457+00 to 464+50; constructing a 100-foot seepage berm from STA 336+80 to 353+33; constructing approximately 640 linear-feet of a reinforced concrete floodwall from STA 442+00 to 447+00; installing drainage structures and outfalls through the existing Garden Highway Levee; completing grading construction for the Reclamation District (RD) 1000 Pumping Plant No. 2 and Natomas Mutual Water Company (NMWC) Pritchard Lake Pumping Plant; removing, relocating, and replacing structures, outfalls, and appurtenances to complete interim construction, including grading, of the NMWC Elkhorn Pumping Plant; and complete private drainage improvements; and

WHEREAS, the geographic description of the project area is located in Sacramento approximately 5 miles downstream from the Natomas Cross Canal along the Garden Highway; and

WHEREAS, on October 23, 2009 the Board considered and agreed to send a letter to the U.S. Army Corps of Engineers requesting 33 U.S.C. Section 408 approval to alter 4.5 miles of federal flood control project levee on the left (east) bank of the Sacramento River located approximately 5 miles downstream from the Natomas Cross Canal along the Garden Highway, in Sacramento County; and

WHEREAS, SAFCA prepared a Draft Environmental Impact Statement /Draft Environmental Impact Report (DEIS/DEIR) (SCH No. 2008072060, February 2009) and the FEIS/EIR (August 2009) on the Natomas Levee Improvement Program Phase 3 Landside Improvements Project submitted by SAFCA. SAFCA as the lead agency determined that the project would have a significant effect on the environment and adopted Resolution 09-059 dated May 21, 2009 (which includes a Statement of Facts, Findings, and Mitigation Measures, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program); and

WHEREAS, the DEIS/DEIR was published on February 13, 2009, for a 45-day public review period that ended on April 6, 2009. In addition, members of the public were invited by formal public notice to submit comments on the DEIS/DEIR in testimony at a public hearing held for that purpose on March 19, 2009; and

WHEREAS, the FEIS/EIR was published on May 11, 2009 and filed a Notice of Determination with the State Clearinghouse on May 22, 2009. SAFCA prepared a Mitigation Monitoring and Reporting Program (MMRP), and on May 21, 2009, the SAFCA Board made CEQA findings, and adopted a Statement of Overriding Considerations and approved the modifications to the Phase 3 project (SAFCA Resolution 09-059); and

WHEREAS, on March 16, 2010, Reclamation District 1000 endorsed application 18159-4; and

WHEREAS, on April 20, 2010 the Corps Sacramento District issued a Letter of Permission to the Board's Executive Officer granting final Section 408 permission for the SREL Improvement Project, Phase 2B; and

WHEREAS, Board staff completed a technical review of the following documents for the Reach 5A through 9B project proposed under Permit Application No. 18159-4:

- Issued for Bid Plans and Specifications for the SREL Phase 2B
- Basis of Design Reports (BODR) for:

  SREL 5A-9B (Stations 228+00 to 468+00) – 90%
  RD 1000 Pumping Plant No. 2 – Issued for Bid (IFB)
  Pritchard Pumping Plant – IFB
  Elkhorn Pumping Plant – IFB
  North Airport Borrow Sites – IFB
  GGS / Drainage Canal and Drainage / Irrigation Improvements – IFB

- Geotechnical Basis of Design Report (BODR) – Kleinfelder (2010)
- Geotechnical Data Report – Kleinfelder (2010)
- Hydrology / Hydraulic Analysis – MBK Engineers

This technical review concluded that the designs for SREL Phase 2B are in accordance with Board, USACE standards, and DWR ILDC; and

WHEREAS, this technical review concluded that the designs of the new cutoff wall, adjacent levee, seepage berm, and surface water drainage facilities are in accordance with current Central Valley Flood Protection Board (Board) and U.S. Army Corps of Engineers (Corps) standards; and

WHEREAS, upon receipt of final 100% plans and specifications Board staff will review and address any final issues with SAFCA prior to issuance of the permit. If major technical issues remain Board staff will determine if the issues can be resolved without further Board consideration, or if they will require the application be brought back to the Board at a future meeting; and

WHEREAS, the Board has conducted a public hearing on Permit Application No. 18159-4 and has reviewed the Reports of its staff, the documents and correspondence in its file, and the environmental documents prepared by SAFCA.

NOW, THEREFORE, BE IT RESOLVED THAT,

Findings of Fact.

1. The Central Valley Flood Protection Board hereby adopts as findings the facts set forth in the Staff Report.

2. The Board has reviewed all Attachments, Exhibits, Figures, and References listed in the Staff Report.

CEQA Findings.

3. The Central Valley Flood Protection Board, as a responsible agency, has independently reviewed the analyses in the Draft Environmental Impact Statement /Draft Environmental Impact Report (DEIS/DEIR) (SCH No. 2008072060, February 2009) and the FEIS/EIR (August 2009) on the Natomas Levee Improvement Program Phase 3 Landside Improvements Project submitted by SAFCA and has reached its own conclusions regarding them.

4. The Central Valley Flood Protection Board, after consideration of the Draft Environmental Impact Statement /Draft Environmental Impact Report (DEIS/DEIR) (SCH No. 2008072060, February 2009) and the FEIS/EIR (August 2009) on the Natomas Levee Improvement Program Phase 3 Landside Improvements Project submitted by SAFCA, MMRP, and SAFCA Lead Agency findings, adopts the project description, analysis and findings which are relevant to activities authorized by issuance of a final encroachment permit consistent with Sacramento River East Levee (SREL) Phase 2B Permit No. 18159-4.

5. **Findings regarding Significant Impacts**. Pursuant to CEQA Guidelines sections 15096(h) and 15091, the Central Valley Flood Protection Board determines that the SAFCA findings, attached to the Staff Report, and incorporated herein by reference, summarize the FEIS/EIR determinations regarding impacts of the modifications to the Sacramento River East Levee (SREL) Phase 2B, before and after mitigation. Having reviewed the FEIS/EIR the SAFCA findings, the Central Valley Flood Protection Board makes its findings as follows:

   a. **Findings regarding Significant and Unavoidable Impacts.**

   The Central Valley Flood Protection Board finds that the Sacramento River East Levee (SREL) Phase 2B, Project may have the following significant, unavoidable impacts, as more fully described in the FEIS/EIR and the SAFCA findings. Mitigation has been adopted for each of these impacts, although it does not reduce the impact to less than significant. The impacts and mitigation measures are set forth in more detail in the FEIS/EIR and SAFCA findings.

   A. Farmland Conversion -The proposed project would covert farmland from agricultural production - Contiguous parcels of agricultural land of sufficient size to support their efficient use for continued agricultural production shall be retained to the extent practicable and feasible;

   B. Potential to Physically Divide or Disrupt an Established Community - Residents and businesses would experience temporary disruption due to road closures, detours, construction, and boat launch facility temporary closure. Therefore, this impact would remain significant and unavoidable;

   C. Loss of Woodland Habitats - The proposed project would result in the loss of woodland habitats - SAFCA shall coordinate with USFWS, DFG, and SCAS (if on Airport property) to ensure that all woodland habitat conservation components of the NLIP are created and managed;

   D. Impacts on Swainson's Hawk and Other Special-Status Birds - The creation and preservation of nesting and foraging habitat would reduce long-term impacts to a less-than-significant level. However, in the short-term, this impact would remain significant and unavoidable because replacement plantings would likely require a minimum of 10 to 15 years before providing important habitat components such as structure and shade;

E. Potential Damage to or Destruction of Previously Undiscovered Cultural Resources from Ground-Disturbance or Other Construction - Ground-disturbing work associated with the levee improvements could affect several prehistoric sites by disturbing interred human skeletal remains and associated grave goods. Because of the complex and stratified geomorphology of the area as well as the magnitude of the construction, implementation of all mitigation may not fully reduce impacts to a less-than-significant level. For example, buried components may not be susceptible to adequate documentation prior to intrusive work. Therefore, this impact would remain significant and unavoidable;

F. Potential Discovery of Human Remains during Construction - The construction methods and procedures involved in the levee improvements preclude complete advance investigation for human remains, so previously unknown buried human remains may be unearthed, damaged, or destroyed during project construction and excavation of borrow. Ground-disturbing work could disinter and damage human remains. Therefore, this impact would remain significant and unavoidable;

G. Temporary Increase in Traffic on Local Roadways - Before the start of construction in each construction season, SAFCA and its primary contractors for engineering and construction shall develop a coordinated construction traffic safety and control plan to minimize the simultaneous use of roadways by different construction contractors for material hauling and equipment delivery to the extent feasible and to avoid and minimize potential traffic hazards on local roadways during construction;

H. Temporary Emissions - The project would result in temporary construction related emissions of reactive organic gases, nitrogen oxides, and particulate matter that could expose nearby sensitive receptors to substantial pollutant concentrations and/or substantially contribute a violation of an air quality standard;

I. Generation of Temporary, Short-Term Construction Noise - Project levee and canal improvements could result in temporary, short-term noise levels that exceed the applicable daytime and nighttime standards for non-transportation sources, resulting in increased annoyance and/or sleep disruption to occupants of residential buildings and other sensitive receptors;

J. Exposure of Sensitive Receptors to or Generation of Excessive Ground borne Vibration - At one residence located near the Pumping Plant No. 2 site, pile driving activities could temporarily cause vibration levels that exceed the Federal Transit Administration's (FTA's) human disturbance-based standard. Mitigation may not reduce the impact to the affected residential structure to levels below applicable standards. Therefore, this impact would remain significant and unavoidable;

K. Short-term Exposure of Residents to Increased Traffic Noise Levels from Hauling Activity - Project construction would generate high volumes of haul truck trips on area roads, temporarily causing noise levels to exceed exterior noise standards at residential land uses and potentially resulting in temporary sleep disturbance at

nearby residences. The mitigated noise levels could still exceed local exterior noise standards for residential land uses. Therefore, this impact would remain potentially significant and unavoidable;

L. New Sources of Light and Glare that Adversely Affect Views - Temporary, short-term use of nighttime lighting for construction could impact adjacent residences, particularly if construction 24 hours a day, seven days a week is required.

Finding: The Board finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen such impacts, as set forth more fully in the SAFCA findings, but that each of the above impacts remains significant after mitigation. Such mitigation measures are within the responsibility of another agency, SAFCA, and SAFCA can and should implement the described mitigation measures. Specific economic, legal, social, technological or other considerations, rendered infeasible mitigation or alternatives that would have reduced these impacts to less than significant.

b. Findings regarding Significant Impacts that can be reduced to Less Than Significant.

The significant impacts and the mitigation measures to reduce them to less than significant are adopted in the SAFCA Resolution 09-059, dated May 21, 2009 (which includes a Statement of Facts, Findings, Impacts and Mitigation Measures, Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program). Based on its independent review of the FEIR and SAFCA Resolution 09-059, the Board finds that for each of the significant impacts described, changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the FEIR. Moreover, such changes or alterations are within the responsibility and jurisdiction of another public agency, SAFCA, and such changes have been adopted by that agency. It is hereby determined that the impacts addressed by these mitigation measures will be mitigated to a less-than-significant level or avoided by incorporation of these mitigation measures into the project.

6. As a responsible agency, the Central Valley Flood Protection Board has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the Project which it decides to carry out, finance, or approve. The Board confirms that it has reviewed the MMRP, and confirmed that SAFCA has adopted and committed to implementation of the measures identified therein. The Board agrees with the analysis in the MMRP and confirms that there are no feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment. None of the mitigation measures in the MMRP require implementation by the Board directly, although continued implementation of the MMRP shall be made a condition of issuance of the Encroachment Permit. However, the measures in the MMRP may be modified to accommodate changed circumstances or new information not triggering the need for subsequent or supplemental analysis under CEQA Guidelines sections 15062 or 15063.

7. **Statement of Overriding Considerations.** Pursuant to CEQA Guidelines sections 15096(h) and 15093, the Board has balanced the economic, social, technological and other benefits of the Project described in application No. 18159-4, against its significant and unavoidable impacts, listed in paragraph 5(a) above, and finds that the benefits of the Project outweigh these impacts and they may, therefore, be considered "acceptable".

   The Central Valley Flood Protection Board finds that there is an immediate need to protect the people and property at risk in the project area. The Natomas Basin floodplain is occupied by over 83,000 residents and $10 billion in damageable property. The area is presently vulnerable to flooding in a less than 100-year flood event along the Sacramento River or American River. The Natomas Basin is a deep floodplain and depending on the circumstances, flood depths in the Natomas Basin could reach life-threatening levels. The disruption in transportation that would result from a major flood would affect the Sacramento International Airport, interstate and state highways, and rail service.

   The health and safety benefits of the project, which would significantly reduce the risk of an uncontrolled flood in the Natomas Basin that would result in a catastrophic loss of property and threat to residents of the area, outweigh the remaining unavoidable environmental impacts.

8. **Custodian of Record**. The custodian of the CEQA record for the Board is its Executive Officer, Jay Punia, at the Central Valley Flood Protection Board Offices at 3310 El Camino Avenue, Room 151, Sacramento, California 95821.

Considerations pursuant to Water Code section 8610.5

9. **Evidence Admitted into the Record**. The Board has considered all the evidence presented in this matter, including the original application for Permit Nos. 18159-4 and technical documentation provided by SAFCA on SREL Phase 2B proposed improvements, past and present Staff Reports and attachments, the original Environmental Impact Report on the Natomas Levee Improvement Program Landside Improvements Project (Draft and Final Versions), SAFCA Resolution 09-059 including findings and Statement of Overriding Considerations, the Mitigation Monitoring and Reporting Program

   The custodian of the file is Executive Officer Jay Punia at the Central Valley Flood Protection Board, 3310 El Camino Avenue, Room 151, Sacramento, California 95821.

10. **Best Available Science**. In making its findings, the Board has used the best available science relating to the issues presented by all parties. On the important issue of hydraulic impacts and the computed water surface profiles, SAFCA used the UNET one-dimensional unsteady flow model developed by the USACE for the Sacramento-San Joaquin Comprehensive Study. The model is considered by many experts as one of the best available scientific tools for the purpose of modeling river hydraulics, including flood control system simulations and water surface profile computations.

11. **Effects on State Plan of Flood Control**. This project has positive effects on the State Plan of Flood Control as it includes features that will provide 200-year protection to the Natomas Basin. The Board found (through prior Resolution 08-04) that the hydraulic impacts of the proposed Sacramento River East Levee Improvements, as computed using the UNET model, on the entire State Plan of Flood Control, are not significant. Those findings included landside levee raises, adjacent setback levees, seepage berms, and drainage collection systems. The Board also finds that none of the changes in project design between the 60 to 90 percent design levels result in adverse hydraulic impacts on the entire State Plan of Flood Control.

    The U.S. Army Corps of Engineers issued "Record of Decision, 408 Permission and Department of the Army 404 Permit to Sacramento Area Flood Control Agency for the Natomas Levee Improvement Project". This approval, pursuant to U.S.C. Title 33, Chapter 9, Subchapter 1, Section 408 included the Sacramento River East Levee Phase 2B. Corps permission was granted based upon Corps determination that such alterations will not be injurious to the public interest and will not impair the usefulness of the Sacramento River Flood Control Project.

    In California Statutes of 2007, Chapter 641 (SB276), the Legislature found and declared that "The projects authorized in Section 12670.14 of the Water Code [which includes the Sacramento River East Levee SREL Phase 2B work] will increase the ability of the existing flood control system in the lower Sacramento Valley to protect heavily urbanized areas within the City of Sacramento and the Counties of Sacramento and Sutter against very rare floods without altering the design flows and water surface elevations prescribed as part of the Sacramento River Flood Control Project or impairing the capacity of other segments of the Sacramento River Flood Control Project to contain these design flows and to maintain water surface elevations. Accordingly, the projects authorized in that section will not result in significant adverse hydraulic impacts to the lands protected by the Sacramento River Flood Control Project and neither the Central Valley Flood Control Board nor any other state agency shall require the authorized projects to include hydraulic mitigation for these protected lands."

12. **Effects of Reasonably Projected Future Events**. The impact of climate change on future hydrology and floodplain conditions is discussed in the Draft EIR on pages 6-17. An increase in precipitation due to climate change "could lead to increased potential for floods because water that would normally be held in the Sierra Nevada until spring could flow into the Central Valley concurrently with winter storm events" thus placing more pressure on California's levee/flood control system. The impact of greenhouse gases is acknowledged and discussed in the DEIR in Section 4.2.5.6 on page 4-18. Proposed development projects in the Natomas Basin are discussed beginning on page 4-11 of the DEIR. In addition, the DEIR discusses the Master Plan for the Sacramento International Airport., beginning on page 4-9 of the DEIR. Thus, improved levees will not only benefit existing residents, they will permit additional planned development, and airport expansion.

Other Findings/Conclusions regarding Issuance of the Permit.

13. Based on the foregoing and particularly on the evidence that the condition of the existing Natomas levees poses an unacceptable risk to life and property, the Board finds and concludes that the issuance of Encroachment Permit No. 18159-4 for the Sacramento River East Levee Improvement Project, Reach 5A-9B is in the public interest.

14. This resolution shall constitute the written decision of the Central Valley Flood Protection Board in the matter of Permit No. 18159-4.

Approval of Encroachment Permit No. 18159-4

15. Based on the foregoing, the Central Valley Flood Protection Board hereby approves the modifications to the NLIP relevant to the Sacramento River East Levee Phase 2B and conditionally approves issuance of Encroachment Permit No. 18159-4 in substantially the form provided as Staff Report Attachment B, subject to receipt, review and approval of final 100% plans, drawings and specifications.

16. The Board directs the Executive Officer to take the necessary actions to prepare and execute the Encroachment Permit No. 18159-4 and all related documents and to prepare and file a Notice of Determination under the California Environmental Quality Act for the Natomas Levee Improvement Program, Landside Improvements Project, Sacramento River East Levee Phase 2B Improvement Project.

PASSED AND ADOPTED by vote of the Board on 23 APRIL 2010, ~~2009~~

Benjamin F. Carter
President

Maureen (Lady Bug) Doherty
Secretary

Other Regulatory Conditions regarding Issuance of the Permit

7. Based on the foregoing and particularly upon evidence that the conditions of the existing Sacramento Levees pose an unacceptable risk to the same properties, the Board hereby concludes that the issuance of Encroachment Permit No. 18159-4 for the Sacramento River East Levee Improvement Project, Reach 5A-9B is in the public interest.

8. This resolution shall constitute the written decision of the Central Valley Flood Protection Board in accordance with Permit No. 18159-4.

Approval of Encroachment Permit No. 18159-4

9. Based on the foregoing, the Central Valley Flood Protection Board hereby approves the modifications to the Mid-Valley Railway in the Sacramento River East Levee Phase 2B and conditionally approves issuance of Encroachment Permit No. 18159-4 to substantially the form provided as Staff Report Attachment B, subject to receipt, review and approval of final 100% plans, drawings and specifications.

10. The Board directs the Executive Officer to take all necessary actions to process and execute the Encroachment Permit No. 18159-4 and related documents, and to prepare and file a Notice of Determination under the California Environmental Quality Act for the Sacramento River East Levee Improvement Project, Landside Improvements Project, Sacramento River East Levee Phase 2B Improvement Project.

PASSED AND ADOPTED by vote of the Board on _____, 2009.

_____
Benjamin C. Carter
President

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Jeremy A. Mah, Secretary