

I. INTRODUCTION

A. PURPOSE AND OVERVIEW OF THE PLAN

This document is the Natomas Basin Habitat Conservation Plan (“NBHCP” or “Plan”). The NBHCP is the conservation plan, which is part of the requirements of the Endangered Species Act, designed to support applications for federal permits under Section 10(a)(1)(B) of the Endangered Species Act. The NBHCP is also intended to serve as the application for incidental take permits under State law pursuant to Section 2081(b) of the California Fish and Game Code. A glossary of definitions for terms used within this document is provided prior to this section.

The purpose of the NBHCP is to promote biological conservation in conjunction with economic and urban development within the Permit Areas. The NBHCP establishes a multispecies conservation program to minimize and mitigate the expected loss of habitat values and incidental take of Covered Species that could result from urban development, operation and maintenance of irrigation and drainage systems, and certain activities associated with The Natomas Basin Conservancy (TNBC) management of its system of reserves established under the NBHCP. The goal of the NBHCP is to minimize incidental take of the Covered Species in the Permit Areas and to provide mitigation for the impacts of Covered Activities on the Covered Species and their habitat.

The NBHCP applies to the 53,537-acre area interior to the toe of levees surrounding the Natomas Basin, located in the northern portion of Sacramento County and the southern portion of Sutter County. The Basin contains incorporated and unincorporated areas within the jurisdictions of the City of Sacramento, Sacramento County, and Sutter County (see Figure 1, Regional Location and Figure 2, Land Use Agency “Permit Area”). The Sacramento International Airport is located in the Basin. The southern portion of the Basin is urbanized, but most of the Basin is used for agriculture.

The entities that may rely upon the NBHCP in their individual applications for federal incidental take permits under Section 10(a)(1)(B) of the Endangered Species Act and state incidental take permits under Section 2081 of the California Fish and Game Code are: (1) the City of Sacramento (City); (2) Sutter County (Sutter); (3) Reclamation District No. 1000 (RD 1000); (4) Natomas Central Mutual Water Company (Natomas Mutual) and (5) The Natomas Basin Conservancy (TNBC). The City, Sutter, RD 1000, and Natomas Mutual will obtain individual Section 10(a)(1)(B) permits from the U.S. Fish and Wildlife Service for Covered Activities conducted within each local agency’s respective jurisdiction within the Natomas Basin. TNBC will obtain a Section 10(a)(1)(B) permit and a Section 2081 permit for reserve management and habitat establishment activities conducted by TNBC on behalf of the City, Sutter County and other Potential Permittees, within the Natomas Basin and Area B. Similarly, the City, Sutter, RD 1000, and Natomas Mutual will also each obtain individual Section 2081 permits, or amendments to existing 2081 permits, from the Department of Fish and Game for Covered Activities conducted within each local agency’s respective jurisdiction within the Natomas Basin and TNBC will obtain a Section 2081 permit for reserve

management and habitat establishment activities it conducts on behalf of the City, Sutter County and other Potential Permittees, within the entire Natomas Basin and Area B. The City, Sutter County, RD 1000, Natomas Mutual and other potential Permittees will each be required to mitigate the impacts of their Covered Activities independently. Thus, if any one of the permits, other than the Permits issued to TNBC, is revoked, the other permits would remain in effect. This is in keeping with the design of the NBHCP as a mitigation tool which can be used by the various Permittees to obtain the necessary incidental take permits needed to conduct otherwise lawful activities within each entity's respective jurisdictional boundaries. Although the mitigation strategy provided for under the NBHCP would mitigate for effects resulting from the Land Use Agencies' Covered Activities, because the percentage of uplands to wetlands differs between their respective Permit Areas, the NBHCP allows for the mitigation strategy provided for under the NBHCP to be reevaluated in the event either the City's or Sutter County's permits are terminated or revoked, or a Permittee (other than TNBC) chooses not to participate in the NBHCP. The mitigation strategy would be reevaluated to ensure that the configuration of TNBC Mitigation Lands provided for under the NBHCP continues to adequately mitigate for the impacts of Authorized Development in the jurisdiction(s) participating in the NBHCP. Because TNBC in carrying out its reserve acquisition and management activities, is acting on behalf of and is controlled by the City, Sutter County and other Potential Permittees noncompliance by TNBC with the terms and conditions of its Permits, the NBHCP or Implementation Agreement, shall be considered a failure of the City and Sutter and other Potential Permittees to comply with their obligations under the NBHCP and may result in suspension and or revocation of their respective Permits.

The effectiveness of the NBHCP's Operating Conservation Program (OCP) to adequately minimize and mitigate the effects of take of the Covered Species due to Authorized Development depends on the City and Sutter County limiting total development within their respective Permit Areas to a combined total of 15,517 acres. In addition, the OCP and the NBHCP's effects analysis account for a combined total of 17,500 acres of Planned Development occurring in the Natomas Basin (i.e., 15,517 acres within the City and Sutter County's Permit Areas and 1,983 acres of Metro Air Park [MAP] development in Sacramento County). Thus, the City and Sutter acknowledge that in the event this future urban development is proposed by the City or Sutter, prior to approval of any related rezoning or pre-zoning, such future urban development shall trigger a re-evaluation of the Plan and Permits, a new effects analysis, potential amendments and/or revisions to the Plan and Permits, a separate conservation strategy and issuance of Incidental Take Permits to the permittee for that additional development, and/or possible suspension or revocation of the City's or Sutter's Permits in the event the City or Sutter violate such limitations.

Because the NBHCP's OCP is based upon the City limiting total development to 8,050 acres within the City's Permit Area, approval by the City of future urban development beyond the 8,050 acres or outside of its Permit Area would constitute a significant departure from the Plan's OCP and would trigger a reevaluation of the Plan, a new effects analysis, potential amendments and/or revisions to the Plan and Permits, a separate conservation strategy and issuance of Incidental Take Permits to the permittee for that additional urban development, and/or possible suspension or

revocation of the City's Permits in the event the City were to violate such limitations without having completed the required re-evaluation, amendments or revisions.

Similarly, approval by Sutter County of development within the Natomas Basin beyond the authorized 7,467 acres or outside of the Sutter County Permit Area would constitute a significant departure from the Plan's OCP and would trigger a reevaluation of the Plan, a new effects analysis, potential amendments and/or revisions to the Plan and Permits, a separate conservation strategy and issuance of Incidental Take Permits to the permittee for that additional urban development, and/or possible suspension or revocation of the County's Permits in the event the County were to violate such limitations without having completed the required reevaluation, amendments or revisions.

Any additional urban development within the Natomas Basin that occurs outside of the City's and Sutter's Permit Areas, with the exception of the MAP development, including any development with Sacramento County or within the jurisdiction of another Potential Permittee, also would constitute a significant departure from the Plan's OCP and would trigger a new effects analysis, a new conservation strategy, and issuance of Incidental Take Permits to the Potential Permittee for that additional urban development. Notwithstanding the foregoing, so long as the City and Sutter County limit urban development to their respective Permit Areas and the City and Sutter County continue to meet their obligations under this NBHCP, the OCP and associated Permits remain valid for each Permittee's Covered Activities.

This NBHCP is based upon the 1997 NBHCP that was the basis for issuance of permits to the City of Sacramento. The 1997 NBHCP has been updated and modified as a result of litigation involving a challenge to issuance of take permits to the City of Sacramento. This NBHCP has also been modified to include participation by the Permittees of the City, Sutter, TNBC, Natomas Mutual and RD 1000.

B. PLAN PARTICIPANTS

Implementation of the NBHCP will involve a variety of agencies and entities. Described below are the primary three categories of NBHCP participants:

- (1) The Wildlife Agencies (USFWS and CDFG), which have incidental take permitting authority over federally and state listed species under the ESA and CESA, are the *Permitters*;
- (2) City of Sacramento, Sutter County, the Natomas Basin Conservancy (TNBC), RD 1000 and Natomas Mutual are the *Permittees*;
- (3) The Natomas Basin Conservancy (TNBC), which will carry out the mitigation requirements of the NBHCP on behalf of the other Permittees, is the *Plan Operator*. TNBC Board will be composed of representatives from, among other interested groups, the City of Sacramento, Sutter County, RD 1000 and Natomas Mutual.

In addition to the Plan Participants identified above, there is the potential for other parties to seek coverage under the NBHCP or a similar habitat conservation program. These entities and individuals are considered *Potential Permittees* and are discussed following the Plan Participants below.

1. Permitters (Wildlife Agencies)

a. U.S. Fish and Wildlife Service (USFWS)

The USFWS has the authority for issuing Section 10(a)(1)(B) incidental take permits under the ESA and will be responsible for enforcing the provisions of the federal incidental take permits, reviewing annual status reports and responding to requests for amendments, and providing technical assistance with regard to the acquisition and management of reserve lands and the implementation of avoidance and minimization measures. The USFWS will be an advisor to TNBC and to the Permittees.

b. California Department of Fish and Game (CDFG)

The CDFG is authorized pursuant to California Fish and Game Code Section 2081, subdivision (b), to issue incidental take permits under CESA. In that capacity as it relates to the NBHCP, the CDFG will be responsible for enforcing the provisions of the NBHCP implementation agreement, reviewing annual status reports, responding to requests by the Permittees for amendments, and providing technical assistance for acquisition and management of reserve lands. The CDFG will be an advisor to TNBC and the other Permittees in implementing the NBHCP. The CDFG will also assist, as appropriate, in reserve establishment and management and may serve as a successor to TNBC (see Section 3.4.7 of the Implementation Agreement).

2. Permittees

Each of the Permittees is expected to apply for and obtain separate Section 10(a)(1)(B) and Section 2081 permits for activities occurring under each Permittees' respective authorities. The Permittees shall utilize a single NBHCP and Implementation Agreement(s) will be executed as each participant becomes signatory to the HCP. Entities undertaking urban development or other Covered Activities under the direct control of the Permittees and in compliance with the NBHCP will be covered under the Permittee's Incidental Take Permits. Specific Covered Activities for each of the Permittees are identified under Section I.N. of this chapter.

As a Permittee, each of the Land Use Agencies will require all new development in the Natomas Basin to participate in the NBHCP and to provide for the establishment of a system of reserves in order to mitigate the individual and cumulative impacts of Authorized Development on Covered Species and their habitats. Urban Development must be in compliance with the NBHCP and state and federal law. Compliance with the Conservation Plan will typically be accomplished through payment of a mitigation fee, (or in lieu dedication of mitigation land as well as payment of the non-land acquisition portion of the fee), and compliance with all applicable avoidance, minimization, and mitigation measures required under the Plan. The Land Use Agencies will keep track of

all Authorized Development to ensure that mitigation fees have been paid and required take avoidance, minimization and mitigation measures have been met. For Authorized Development consisting of construction of public works or other public facilities, each of the Land Use Agencies, as a Permittee, shall ensure compliance with the NBHCP similar to private projects.

In addition to the Land Use Agency Permittees, the Water Agency Permittees will ensure that all Water Agencies' Covered Activities are conducted in accordance with the practices described in Chapter V.C.1. The Water Agencies shall annually report on their Covered Activities and document their compliance with the provisions of the NBHCP and the associated permits. These reports, along with those of the Land Use Agencies, shall be compiled annually by TNBC to form a Basin-wide record of Permittees' activities.

Finally, the TNBC as a Permittee, will comply with the habitat reserve acquisition and management measures included in Chapter IV as well as specific species conservation measures included in Chapter V.

a. City of Sacramento

The City of Sacramento will require the proponents of all new development in the Natomas Basin within the City's Permit Area to demonstrate suitable mitigation for project impacts in accordance with the NBHCP and in compliance with state and federal law. Such compliance shall include the requirements for land and/or fee dedication as described within this document as well as the application of all measures listed in Chapter V of this document to avoid, minimize and mitigate the take of Covered Species. This requirement will apply to all new development described in the North Natomas Community Plan and South Natomas Community Plan (see the associated Natomas Basin HCP Environmental Impact Statement/Environmental Impact Report which includes all adopted mitigation measures). All proponents of new development in the City shall comply with the applicable mitigation measures identified in the Mitigation Monitoring Plans approved with each community plan, as well as the measures of this NBHCP. The City of Sacramento is seeking coverage for a total of 8,050 acres of Authorized Development under the NBHCP.

In addition to review and approval of private urban development proposals, the City of Sacramento will construct public projects and infrastructure that shall also be covered by the NBHCP. The Public projects are included in the 8,050 acres of Authorized Development allocated to the City of Sacramento.

The effectiveness of the NBHCP's Operating Conservation Program (OCP) to adequately minimize and mitigate the effects of take of the Covered Species due to Authorized Development depends on the City and Sutter County limiting total development within their respective Permit Areas to a combined total of 15,517 acres. In addition, the OCP and the NBHCP's effects analysis account for a combined total of 17,500 acres of Planned Development occurring in the Natomas Basin (i.e., 15,517 acres within the City and Sutter County's Permit Areas and 1,983 acres of MAP development in Sacramento County). Because the NBHCP's OCP is based upon the City limiting total

development to 8,050 acres within the City's identified Permit Area, approval by the City of future urban development beyond the 8,050 acres or outside of its Permit Area would constitute a significant departure from the Plan's OCP and would trigger a reevaluation of the Plan, a new effects analysis, potential amendments and/or revisions to the Plan and Permits, a separate conservation strategy and issuance of Incidental Take Permits to the permittee for that additional urban development, and/or possible suspension or revocation of the City's Permits in the event the City were to violate such limitations without completing such reevaluation, amendment or revision. Any additional urban development within the Natomas Basin that occurs outside of the City's and Sutter's Permit Areas, with the exception of the MAP development, including any development with Sacramento County or within the jurisdiction of another Potential Permittee, also would constitute a significant departure from the Plan's OCP and would trigger a reevaluation of the Plan, a new effects analysis, potential amendments and/or revisions to the Plan and Permits, a separate conservation strategy, and issuance of Incidental Take Permits to the Potential Permittee for that additional urban development and/or possible suspension or revocation of the City's Permits in the event the City were to violate such limitations. Notwithstanding the foregoing, so long as the City and Sutter County limit urban development to their respective Permit Areas and the City and Sutter County continue to meet their obligations under this NBHCP, the OCP and associated Permits remain valid for each Permittee's Covered Activities.

If the City of Sacramento annexes additional lands into the City (with the exception of the panhandle annexation area - see Section III.C) within the Plan Area but outside the City's Permit Area as shown on Figure 2, the City would be required to comply with state and federal law, to address the impacts of take resulting from future development of the annexed lands. As noted in Section VI.L of this NBHCP, inclusion of additional lands under the NBHCP for purposes of seeking incidental take coverage would require either an amendment of the Plan and the City's Incidental Take Permits or preparation of a new HCP for that additional area. Such an amendment would require the City to address various impacts, including impacts to the NBHCP Covered Species and the effects of urban development on lands proposed for annexation on the biological viability of such species and would be subject to all applicable state and federal statutes and regulations, including the provisions of the CESA, ESA, CEQA and NEPA.

For purposes of the NBHCP, although the West Lakeside Annexation area is proposed by the landowners to be annexed to the City of Sacramento, this area currently is located within Sacramento County and is not outside of the County's Urban Services Boundary and the City's Sphere of Influence, and it is not included in the 8,050 acres of Authorized Development or within the City's Permit Area. Thus, this annexation would trigger a reevaluation of the Plan, a new effects analysis, potential amendments and/or revisions to the Plan and Permits, a separate conservation strategy and issuance of Incidental Take Permits to the City for that additional urban development and possible suspension or revocation of the City's Permits in the event the City were to violate such limitations without completing such reevaluation, amendment or revision.

Any amendments proposed but not yet processed and approved will not affect the validity of this HCP.

b. Sutter County

Sutter County will require the proponents of all new development in the Sutter County portion of the Natomas Basin to demonstrate suitable mitigation for project impacts in accordance with the NBHCP and in compliance with state and federal law. This includes compliance with appropriate mitigation measures which might be identified and adopted pursuant to the California Environmental Quality Act (CEQA). HCP compliance shall include the requirements for land and/or fee dedication as described within this document as well as the application of all measures listed in Chapter V of this document to avoid, minimize and mitigate the take of Covered Species. Sutter County development under the NBHCP will include up to 7,467 acres of land located within the County's Industrial/Commercial Reserve area located in the southeast portion of Sutter County within the Natomas Basin.

Although the SYSCO project was approved prior to adoption of the NBHCP and issuance of Incidental Take Permits, the SYSCO project is located within the Sutter County Industrial/Commercial Reserve and was required to comply with the provisions of the NBHCP. Sutter County collected funds from SYSCO in the amount of the NBHCP fee in place at the time of project approval. These funds will be utilized to purchase 25 acres of TNBC reserve land. The 50 acre SYSCO project, located within the Sutter County Permit Area, is considered part of Sutter County's 7,467 acres of Authorized Development. In addition to review and approval of private urban development proposals, Sutter County will construct public projects and infrastructure that shall also be covered by the NBHCP. These Public projects are included in the 7,467 acres of Authorized Development allocated to Sutter County.

At this time, there is one proposed Sutter County public facility project, drainage channel improvements to support the South Sutter County Specific Plan area, located on land in Sacramento County outside the Sutter County Industrial/Commercial Reserve. This project involves expanding two existing RD 1000 drainage channels to accommodate additional storm water flows. These channels, referred to as the East Drainage Canal and the Montna Drain, are located within Sacramento County immediately south of the Sutter-Sacramento County boundary. To the extent that these channels and their associated levees and access roads are expanded beyond the footprint of the existing facilities, Sutter County will consider the expansion of these facilities as urban development subject to the provisions of the NBHCP. Such increases in the footprint of the drainage channels are considered part of Sutter County's 7,467 acres of Authorized Development.

The effectiveness of the NBHCP's Operating Conservation Program (OCP) to adequately minimize and mitigate the effects of take of the Covered Species due to Authorized Development depends on the City and Sutter County limiting total development within their respective Permit Areas to a combined total of 15,517 acres. In addition, the OCP and the NBHCP's effects analysis accounts for a combined total of 17,500 acres of Planned Development occurring in the Natomas Basin (i.e., 15,517 acres

within the City and Sutter County's Permit Areas and 1,983 acres of MAP development in Sacramento County). Because the NBHCP's OCP is based upon Sutter County limiting total development to 7,467 acres within Sutter County's identified Permit Area, approval by Sutter County of future urban development beyond the 7,467 acres or outside of its Permit Area would constitute a significant departure from the Plan's OCP and would trigger a reevaluation of the Plan, a new effects analysis, potential amendments and/or revisions to the Plan and Permits, a separate conservation strategy and issuance of Incidental Take Permits to the permittee for that additional urban development, and/or possible suspension or revocation of Sutter County's Permits in the event Sutter County were to violate such limitations without completing such reevaluation, amendment or revision. Any additional urban development within the Natomas Basin that occurs outside of the City's and Sutter's Permit Areas, with the exception of the MAP development, including any development with Sacramento County or within the jurisdiction of another Potential Permittee, also would constitute a significant departure from the Plan's OCP and would trigger a reevaluation of the Plan, a new effects analysis, potential amendments and/or revisions to the Plan and Permits, a separate conservation strategy, and issuance of Incidental Take Permits to the Potential Permittee for that additional urban development, and/or possible suspension or revocation of the County's Permits in the event Sutter County were to violate such limitations. Notwithstanding the foregoing, so long as the City and Sutter County limit urban development to their respective Permit Areas and the City and Sutter County continue to meet their obligations under the NBHCP, the OCP and associated Permits remain valid for each Permittee's Covered Activities.

For purposes of obtaining coverage under the NBHCP, expansion of the County's Permit Area or an increase in the County's Authorized Development could only be accomplished through approval of a major amendment of the NBHCP and the associated permits. Such an amendment of the NBHCP and associated permits would be subject to all applicable state and federal statutes and regulations, including the provisions of the CESA, ESA, CEQA and NEPA.

c. Reclamation District Number 1000 (RD 1000)

RD 1000 was created April 8, 1911, by a Special Act of the California State Legislature to provide agricultural drainage, flood control and levee maintenance. The entire Natomas Basin is included within its jurisdiction. RD 1000 has participated in the development of the NBHCP. However, RD 1000 has elected not to apply for an Incidental Take Permit at the time of publication of this draft NBHCP. RD 1000 may elect at a future date to apply for an Incidental Take Permit and would be required at that time to execute an Implementation Agreement with USFWS evidencing implementation and compliance with this HCP.

During the HCP preparation process, both RD 1000 and Natomas Mutual Water District expressed interest in pursuing take coverage for pesticides and rodenticides. However, such coverage is prohibited or limited by the regional USFWS guidance policy (USFWS, *Inclusion of Pesticide and Herbicide Applications as a Covered Activity in and Endangered Species Act Section 10(a)(1)(B) Permit*, July 1998). Any exceptions to this policy would require a considerable length of time to prepare and process adequate scientific

information necessary for the USFWS to analyze the biological effects of each chemical on the Covered Species. Because of the length of time and uncertainty surrounding approval of pesticides and rodenticides, this HCP does not include coverage for pesticides, herbicides or rodenticides. Rather, this HCP limits the Covered Activities for the Water Agencies to mechanical activities such as mowing and non-chemical channel maintenance activities. In March 2002, the Boards of Directors of both Water Agencies elected not to continue participation in the joint HCP because coverage for pesticide use would not be granted by the USFWS. The Water Agencies continue to be represented in the HCP as a Permittee in the event they should choose at a future date to apply for Incidental Take Permits for the activities (excluding pesticides) authorized in the HCP and evaluated in this EIR/EIS.

RD 1000 is bounded on the west by the Sacramento River, on the north by the Natomas Cross Canal, on the east by the Pleasant Grove Creek Canal and Steelhead Creek (formerly known as Natomas East Main Drainage Canal (NEMDC)) and on the south by the American River. RD 1000 does not maintain Steelhead Creek, but does maintain the approximately 43 miles of levees that surround it. In addition, RD 1000 maintains approximately 10 miles of non-project interceptor levees in the Pleasant Grove area. Generally, levees operated or maintained by RD 1000 are on easements of record, except for the Cross Canal and its south levee and some sections of Steelhead Creek and its west levee, which are on parcels owned in fee by the District.

When originally designed, the interior canal system brought all agricultural drain water to the pumping plant at Second Bannon and Pritchard Lake for discharge into the Sacramento River. The system today consists of approximately 30 miles of main canals that RD 1000 owns in fee. These parcels are delineated on the subdivision plat maps, including acreage. RD 1000 also operates and maintains approximately 150 miles of drainage ditches, which are on recorded “ditch and roadway” rights-of-way. They drain specific parcels and connect to the main canals (see Figure 3, Water Delivery and Drainage Systems).

At present RD 1000 operates eight pumping plants that pump agricultural irrigation tailwater and urban storm water into the Sacramento River, Natomas Cross Canal, and Steelhead Creek (formerly NEMDC). These pump stations and the drainage system are shown on Figure 3, Water Delivery and Drainage Systems. RD 1000 drainage channels and Natomas Mutual irrigation channels overlap in some instances, with a combined total of approximately 247 miles of channels occupying an estimated 1,769 acres of the Natomas Basin.

Giant garter snakes live in the canals and ditches maintained by RD 1000 and canal and ditch operation and maintenance activities may result in take of the Covered Species. RD 1000 is committed to reducing impacts of its operations and maintenance practices on Covered Species, particularly the giant garter snake. This NBHCP includes appropriate measures to avoid, minimize and mitigate the impacts of RD 1000 Covered Activities.

RD 1000 is not provided take authorization under this NBHCP for projects that would increase the footprint of any RD 1000 facilities within the Natomas Basin. If such

projects are proposed, the potential impacts on state and federal listed species would be reviewed subject to the provisions of CESA and ESA and permits, as determined appropriate, would be required. This NBHCP does not provide take authorization or specify mitigation for such projects.

d. Natomas Central Mutual Water Company (“Natomas Mutual”)

Natomas Mutual was incorporated in 1921. It is a private, non-profit water company with a service area of approximately 47,000 acres within the Natomas Basin. Natomas Mutual is managed for the mutual benefit of its shareholders, who are owners of land within the service area.

Natomas Mutual has participated in the development of the NBHCP. However, Natomas Mutual has elected not to apply for an Incidental Take Permit at the time of publication of this draft NBHCP. The decision of Natomas Mutual to not participate within this NBHCP was made in response to the lack of coverage for pesticide and herbicide use under this NBHCP. Such coverage has not been included due to the lack of knowledge of impacts associated with pesticides and herbicides typically used by Natomas Mutual and the inability to predict the damage such chemicals might have on Covered Species. Natomas Mutual may elect at a future date to apply for an Incidental Take Permit and would be required at that time to execute an Implementation Agreement with USFWS evidencing implementation and compliance with this HCP. (See also RD 1000 discussion Section C above.)

About 30,000 acres of land within the Natomas Mutual service area are irrigated each year, with rights to some 130,200 acre feet of water diverted from the Sacramento River. Natomas Mutual maintains a “closed water delivery system,” which holds all agricultural water within the service area from April 1st through October 15th of any year. Natomas Mutual maintains an extensive system of water delivery facilities that recapture water from fields and use it over again. Five main pumping stations along the Sacramento River divert water into main canals and then into ditches throughout the service area (see Figure 3, Water Delivery and Drainage Systems).

Giant garter snakes live in the canals and ditches maintained by Natomas Mutual and canal and ditch operation and maintenance activities may result in take of the Covered Species. Natomas Mutual is committed to reducing impacts of its operations and maintenance practices on Covered Species, particularly the giant garter snake. This NBHCP includes appropriate measures to avoid, minimize and mitigate the impacts of Natomas Mutual Covered Activities.

As noted in I.N.2, Natomas Mutual is not provided take authorization under this NBHCP for projects such as the construction, maintenance, operation, or closure of river diversion facilities and accompanying fish screens owned or operated by Natomas Mutual in the Natomas Basin. Nor does this NBHCP provide take authorization for projects involving the expansion of existing Natomas Mutual facilities beyond the footprint of the existing facility. If such projects are proposed, the potential impacts on state and federal listed species would be reviewed subject to the provisions of CESA and ESA and permits, as determined appropriate, would be required. This NBHCP does

not provide take authorization or specify appropriate mitigation for such projects.

e. The Natomas Basin Conservancy (TNBC) (as a Permittee)

TNBC serves as the plan operator established by the City and controlled by the City, Sutter County and other potential Permittees to acquire and manage the system of habitat reserves to be created under the NBHCP. TNBC is also a Permittee. TNBC will seek separate Incidental Take Permits to cover activities related to the acquisition, establishment and management of the system of habitat reserves to be created throughout the Natomas Basin and in Area B (see Figure 20). (Note: *During the final NBHCP approval process by the City Council of the City of Sacramento and the Board of Supervisors of Sutter County, authorization to purchase Mitigation Lands to offset the impacts of development was limited to the Natomas Basin and the “outer” ring around the levees of the Natomas Basin. No authorization to purchase lands to mitigate impacts of Authorized Development in Area B (out of Basin area) was granted by the City Council and the Board of Supervisors.*) The NBHCP includes a number of measures to avoid and minimize the impact of TNBC Covered Activities to Covered Species in Chapter IV, and in addition includes measures to enhance the survival of Covered Species through habitat enhancements and adaptive management provisions.

3. Plan Operator

a. Natomas Basin Conservancy

The NBHCP’s reserve acquisition and management activities will be implemented by The Natomas Basin Conservancy (TNBC), serving as the “Plan Operator”, on behalf of the City, Sutter County, the Metro Air Park Property Owners’ Association under the Metro Air Park HCP (MAP) and other potential Permittees. TNBC is an independent non-profit corporation. The habitat mitigation fees and mitigation lands will be transferred to TNBC under the Plan. TNBC’s efforts are guided by a Board of Directors, with members of the Board appointed by agencies receiving permits under the NBHCP. The Board is assisted in its efforts by the NBHCP Technical Advisory Committee (TAC), a group of experts with members including representatives of the Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Game) and the Permittees.

TNBC, as the Plan Operator, will conduct a variety of actions to acquire, establish and enhance, monitor and manage lands in perpetuity to ensure the continued success within the Natomas Basin of all Covered Species listed within the NBHCP. TNBC will serve, on behalf of the Permittees and the Wildlife Agencies, as the Plan implementation and effectiveness monitor. As development within the Natomas Basin occurs, and as TNBC acquires reserve lands, site specific management plans will be prepared for and adopted by TNBC. Additionally, TNBC may implement adaptive management plans and to the extent provided for under by the NBHCP, management measures proposed in species recovery plans for the Covered Species. Additional responsibilities of TNBC are further detailed in Chapters IV, V and VI.

4. Third Parties

“Third Parties” refers to persons receiving incidental take coverage under the incidental take permits held by a Permittee. An example of a “third party” is a private landowner in the Natomas Basin who seeks an urban development permit from the City or Sutter County. (Development proposals on private land within the City’s and Sutter’s Permit Areas shall comply with the requirements of the NBHCP, including payment of mitigation fees and compliance with applicable avoidance, minimization, and mitigation measures.)

5. Potential Permittees

In addition to the plan participants described above, there are two additional groups that could obtain coverage under the NBHCP or under a similar habitat conservation plan: the County of Sacramento and Natomas Basin Farmers. Inclusion of either of these Potential Permittees within the NBHCP would require an amendment (see Section VI.L.3.), of the Plan and issuance of separate incidental take permits. If the County of Sacramento considers new projects within the unincorporated area of the Natomas Basin in Sacramento County, the County may seek to address mitigation for biological impacts via amendments to this NBHCP or through a habitat conservation plan similar to the NBHCP. Similarly, farmers within the Natomas Basin may choose to participate in the same or similar habitat conservation plans that would specifically address ongoing agricultural operations.

In the future, if the County, Natomas Basin farmers or other Potential Permittees within the Natomas Basin seek to become Permittees by participating in the NBHCP, such parties will be required to comply with Federal and State law governing issuance of incidental take permits under ESA and CESA. They may rely on this version of the NBHCP, with modifications appropriate to each additional Permittee, or prepare and process a separate HCP application specific to each new Permittee’s activities. Should any additional entity within the Natomas Basin prepare and process a separate HCP that is also intended to serve as an application for incidental take permits under Federal and State law, such plan must be consistent with the biological goals and objectives and the conservation strategy of this NBHCP.

a. Sacramento County

The County of Sacramento is not a participant in this NBHCP nor is it proposing to obtain incidental take permits based on this NBHCP. If the County considers new projects within the unincorporated area of the Natomas Basin within Sacramento County, the County would review the biological impacts of these new projects and require these projects to demonstrate that adequate mitigation would compensate for biological impacts in accordance with state and federal law. The County may seek to address mitigation for biological impacts via amendments to this NBHCP or through a habitat conservation plan designed to achieve the biological goals and objectives for the Natomas Basin outlined in the NBHCP in a manner compatible with the conservation strategy of the NBHCP. In particular, such mitigation would be required to address the effect of reduced agricultural lands on the biological viability of the NBHCP.

b. Farmers

While farming is not provided coverage under the NBHCP Incidental Take Permits, it is recognized that continued agricultural activities within the Basin are beneficial to the long term viability of certain Covered Species in the region. Farmers who own, operate, and maintain land in the Basin may choose to participate in the NBHCP in the future or adopt their own habitat conservation plan with mitigation measures similar to those applied to agricultural lands managed by TNBC under this NBHCP.

6. Additional NBHCP Permittee - Metro Air Park

The USFWS and CDFG, in February of 2002, issued ITPs for the Metro Air Park (MAP) project to the MAP Property Owners Association (MAP POA). MAP will be an urban development project adjacent to the Sacramento International Airport in Sacramento County. The 2,011 acres of urban development associated with the MAP are part of the total 17,500 acres of future Planned Development considered by the NBHCP in the Natomas Basin. However, a portion of the MAP project, approximately 28 acres, is located within the City of Sacramento's NBHCP Permit Area. These 28 acres are included in the 8,050 acres of disturbance attributed to the City. Therefore, this NBHCP anticipates that the MAP project will result in 1,983 acres of the 17,500 acres of disturbance addressed by this NBHCP. MAP has obtained separate incidental take permits based on an HCP that incorporates the conservation strategy of the 1997 regional NBHCP as modified to address the specific circumstances of Metro Air Park and in response to the District Court's ruling in *NWF v. Babbitt*. As stated above, the Metro Air Park HCP and its IA provide for automatic revision of the MAP HCP to incorporate applicable provisions of the revised NBHCP upon approval of the latter by Wildlife Agencies. Extension of applicable NBHCP provisions to MAP will be treated as a revision of the Plan and will not require a permit amendment.

C. BIOLOGICAL GOALS AND OBJECTIVES OF THE NBHCP

The NBHCP biological goals are the broad guiding principles for the operating conservation program and provide the rationale behind the minimization and mitigation strategies. The specific biological objectives are the measurable targets for achieving the biological goals. The goals and objectives together provide a framework for developing a monitoring program that measures progress towards meeting those goals and objectives. In addition, the biological goals and objectives must be linked to the adaptive management process in order to ensure that necessary management decisions are based on these guiding principles of the Plan.

Described in this section are the biological goals and objectives for the overall NBHCP and for specific species known to utilize the Natomas Basin. The primary biological goal of the NBHCP is to create a system of reserves, with both wetland and upland components, that would support viable populations of the giant garter snake, Swainson's hawk and other Covered Species. The NBHCP primarily focuses preservation efforts on the giant garter snake and Swainson's hawk. The habitat needs of the other Covered Species overlap significantly with the giant garter snake and the Swainson's hawk such that specific habitat requirements of the other Covered Species can be incorporated and met within the upland and wetland components of the

reserves focused on providing Swainson's hawk and giant garter snake habitats. Specific consideration of the needs of the other Covered Species must be incorporated into the restoration, enhancement, and management plans as they are developed for each reserve site according to criteria provided in Chapter IV.D Reserves will be planned to provide diverse habitat elements within the broader categories of upland and wetland habitats in order to meet the needs of a broad range of species. Table I-1 below identifies the 22 species covered by the Plan.

TABLE I – 1
LISTED, CANDIDATE, AND OTHER SPECIES COVERED IN THE NBHCP AND/OR
COVERED BY ITS ASSOCIATED PERMITS

#	Species	Federal Status	State Status	Habitat Notes
1	Aleutian Canada goose <i>Branta canadensis leucopareia</i>	SC		Grazes in marshes and stubble fields, roosts on the water
2	bank swallow <i>Riparia riparia</i>		T	Nests in river banks, forages for insects over open water, croplands, and grasslands
3	burrowing owl <i>Athene cunicularia</i>		SSC	Prefers open, dry grassland and desert habitats
4	loggerhead shrike <i>Lanius ludovicianus</i>	SC	SSC	Prefers open habitats with scattered shrubs, trees, fences, and posts. Will use cropland.
5	Swainson's hawk <i>Buteo swainsoni</i>		T	Breeds in riparian forest; known nesting sites in trees along Sacramento River in Natomas Basin. Forages for small mammals in grasslands and croplands.
6	tricolored blackbird <i>Agelaius tricolor</i>	SC	SSC	Nests in marshes with bulrush, blackberry or cattails; three known occurrences in Natomas Basin. Forages on the ground in grasslands and croplands.
7	white-faced ibis <i>Plegadis chihi</i>	SC	SSC	Forages in flooded rice fields
8	giant garter snake <i>Thamnophis gigas</i>	T	T	Forages in marshes, low gradient open waterways and flooded rice fields, hibernates in canal berms and other uplands; several known occurrences in Natomas Basin
9	northwestern pond turtle <i>Clemmys marmorata marmorata</i>	SC	SSC	Lives in permanent bodies of water; requires floating vegetation, logs, rocks or banks for basking. Hibernates and lays eggs in uplands.
10	California tiger salamander <i>Ambystoma californiense</i>	PT	SSC	Winters in ground squirrel burrows or other holes; breeds in vernal pools, stockponds, and other seasonal wetlands. * The Service proposed to list the Central Valley population of the California tiger salamander as threatened on May 16, 2003
11	western spadefoot toad <i>Scaphiopus hammondi</i>	SC	SSC	Primary habitat is grasslands; breeds in shallow temporary pools
12	valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T		Lives and reproduces on elderberry shrubs found along rivers and canals.

#	Species	Federal Status	State Status	Habitat Notes
13	midvalley fairy shrimp <i>Branchinecta mesovallensis n. sp.</i>			Vernal pool obligate often found in small pools; likely to occur in Plan Area
14	vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T		Vernal pool obligate; widely distributed in Sacramento County
15	vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E		Vernal pool obligate; widely distributed in Sacramento County
16	Boggs Lake hedge-hyssop <i>Gratiaola heterosepala</i>		E	Low-terrace species found in shallow water margins of vernal pools
17	Colusa Grass <i>Neostapfia colusana</i>	T		Occurs in large deep pools with substrates of adobe mud but also in smaller pools; known in Yolo County
18	delta tule pea <i>Lathyrus jepsonii ssp.jepsonii</i>	SC		Perennial twining vine occurs in both riparian and marsh habitats
19	legenere <i>Legenere limosa</i>	SC		Found in wet places or vernal pools below 400 feet in elevation
20	Sacramento Orcutt grass <i>Orcuttia viscida</i>	E	E	Found in relatively large, deep vernal pools in eastern Sacramento County
21	Sanford's arrowhead <i>Sagittaria sanfordii</i>	SC		Tuberose perennial likely to occur in drainage or irrigation ditches
22	slender Orcutt grass <i>Orcuttia tenuis</i>	T	E	Found in relatively large, deep vernal pools in eastern Sacramento County

Key to Abbreviations

Federal

- E = Listed as endangered C = Candidate for federal listing, data sufficient
T = Listed as threatened SC = Species of Concern--informal category, formerly called candidate 2 species (data for listing insufficient)
PT = Proposed for listing as a Threatened Species

State

- E = Listed as Endangered R = Listed as Rare
T = Listed as Threatened SSC = Species of Special Concern

The NBHCP covers seven (7) plant species. The Federal ESA (Sections 7(o)(2) and 7(o)(4) which refers to terms, conditions and exceptions of taking of listed fish and wildlife species do not apply to plant species. The above listed plants are included as a Covered Species under the NBHCP in recognition of the conservation measures provided for them under the HCP, and to extend assurances to them under the federal "No Surprises" rule. The NBHCP also covers the seven plant species for CESA

purposes.

1. Overall Goals and Objectives

The NBHCP applies a range of conservation strategies intended to mitigate for the impacts arising from Covered Activities in the Permit Areas. The goals and objectives in this plan contain habitat and species information related to the Covered Species.

Overall biological goals and objectives of the NBHCP include:

Overall Goals:

- (1) Establish and manage in perpetuity a biologically sound and interconnected habitat reserve system that mitigates impacts on Covered Species resulting from Covered Activities and provides habitat for existing, and new viable populations of Covered Species.
- (2) Implement an adaptive management program that responds to changing circumstances affecting Covered Species and their habitats.
- (3) Preserve open space and habitat that may also benefit local, non-listed and transitory wildlife species not identified within the NBHCP.
- (4) Ensure that direct impacts of Authorized Development upon Covered Species are avoided or minimized to the maximum extent practicable.

Overall Objectives:

- (1) Minimize conflicts between wildlife and human activities, including conflicts resulting from airplane traffic, roads and automobile traffic, predation by domestic animals, and harassment by people.
- (2) Maintain and operate flood control, irrigation and drainage facilities in a manner that minimizes take of Covered Species and promotes vegetative cover that enhances habitat values for Covered Species, consistent with the Water Agencies' legal obligations.
- (3) Ensure connectivity between TNBC reserves to minimize habitat fragmentation and species isolation. Connections between reserves will generally take the form of common property boundaries between reserves, waterways (primarily irrigation and drainage channels) passing between reserves and/or an interlinking network of water supply channels or canals.
- (4) Within individual TNBC reserves, provide a mosaic of habitats that support both wetland and upland species, and that are configured to support species that utilize both types of habitat.

- (5) Implement monitoring programs with qualitative and/or quantitative monitoring methods to evaluate management objectives and strategies for the reserve system. TNBC shall develop each monitoring plan and shall submit the plan for review by NBHCP TAC and approval by the Wildlife Agencies prior to implementation.
- (6) Increase the diversity and abundance of Covered Species on reserve lands.
- (7) Revise the reserve design and management based on the most current biological data.

2. Wetland Species/Habitat Goals and Objectives

The following biological goals and objectives for the wetland habitat established by the NBHCP are specific to the following Covered Species: giant garter snake; tricolored blackbird; Aleutian Canada goose; white-faced ibis; Northwestern pond turtle; California tiger salamander; western spadefoot toad; midvalley fairy shrimp; vernal pool fairy shrimp; vernal pool tadpole shrimp; delta tule pea; Sanford's arrowhead; Bogg's Lake hedge-hyssop; Colusa grass; legenere; Sacramento orcutt grass; slender orcutt grass; and delta tule pea.

- (1) Acquire, enhance and create a mosaic of wetland habitats with adjacent uplands and connecting corridors to provide breeding, wintering, foraging, and cover areas for wetland species in the Plan Area.
- (2) Provide habitat to maintain, attract and sustain viable populations of the Covered Species. The habitat areas should be configured to encompass natural species migration areas, minimize species isolation, and prevent future habitat fragmentation.
- (3) Document population trends of Covered Species through monitoring.

3. Upland Species/ Habitat Goals and Objectives

The following are biological goals and objectives for the upland habitat established by the NBHCP for the following Covered Species: Swainson's hawk; loggerhead shrike; burrowing owl; tricolored blackbird; bank swallow; California tiger salamander; and valley elderberry longhorn beetle.

- (1) Acquire, enhance and create a mosaic of upland habitat types for breeding, foraging, and cover for species dependent on upland habitats.
- (2) Ensure reserve land connectivity with travel corridors for upland-dependent species. The habitat areas should encompass grasslands, agricultural croplands, riparian habitats, and shelter and nesting habitat areas (fence rows, clusters of shrubs and small trees), as well as wetland areas to provide a year-round source of water for upland species. The

upland areas should be configured to enhance natural species migration, minimize species isolation, and prevent future habitat fragmentation.

D. CONSERVATION STRATEGY OF THE NBHCP

The NBHCP seeks to ensure the long term conservation and to aid in the recovery of numerous wildlife species that have been granted varying degrees of protection under state and Federal law. The NBHCP Plan Area includes approximately 53,537 acres of land that have historically been utilized for agriculture, with rice being the predominant crop in the Basin. The combination of rice, other agricultural crops, drainage and irrigation channels, and ruderal lands has allowed remnant wildlife populations to persist within the Basin, most notable among these being the giant garter snake and the Swainson's hawk.

Conservation of Covered Species under this Plan will be achieved through acquisition (conservation easement or fee title), protection, and enhancement of existing habitats in the Natomas Basin, minimizing the impacts of the Covered Activities, including development activities, water facility maintenance, and reserve management activities, and by focusing upon the preservation of the overall habitat values in the Basin. Habitat values are defined as the capability of a land, water, or associated area, where indigenous plants or animals may occur and upon which the Covered Species are dependent, in whole or in part, to provide for some or all of their maintenance, growth and reproduction. Preservation of habitat values within the Natomas Basin will protect and conserve both listed and non-listed species.

The NBHCP has been established to allow some development to occur within the Natomas Basin, while ensuring that habitat values are maintained and, to the maximum extent practicable, increased within the Natomas Basin. The NBHCP conservation strategy has been prepared to accommodate 17,500 acres of Planned Development. Of this 17,500 acres, 15,517 acres will be developed by the City of Sacramento and Sutter County and is considered the Authorized Development of this NBHCP for the City and Sutter County. An additional 1,983 acres is to be developed by Metro Air Park (MAP). While MAP is not a Permittee under this NBHCP, the impact of MAP development has been considered and MAP development will be required to comply with the conservation strategies of this NBHCP.

As established in this Plan, developers which request Urban Development Permits of the Land Use Agency Permittees would be required to: (1) provide land and/or fees to establish one-half acre of reserve land for each acre of development (0.5 to 1 ratio); (2) provide funding for the enhancement of habitat on the reserve land during the 50 year term of the permits so as to result in habitat types currently anticipated to be comprised of the following percentages (25% in managed marsh, 50% in rice production, and 25% in upland habitats); (3) contribute to an endowment fund to provide for habitat management and monitoring the Mitigation Land habitat reserves in perpetuity; (4) provide funding for ongoing management of Mitigation Lands, administration of the Plan and TNBC operations over the permit term; and (5) contribute to a supplemental endowment fund to be used to respond to changed circumstances that could arise in the future.

In addition to the Mitigation Fee required under the NBHCP, Authorized Development within the Permit Areas will also be required to adhere to guidelines to avoid, minimize and mitigate take of Covered Species during development. These additional guidelines are discussed within Chapter V. These guidelines to avoid, minimize and mitigate take of species have been based upon: (1) adopted land use documents (specific plans and general plans of the City of Sacramento and Sutter County) and associated environmental documents; (2) mitigation measures applied to recent development projects within the City of Sacramento; and (3) USFWS and CDFG adopted guidelines for avoidance, minimization, and mitigation for take of species covered by the NBHCP.

During the 50 year life of the permits, development activities covered by the NBHCP could result in approximately 23,105 acres of urban development in the Natomas Basin (5,605 acres of existing development and 17,500 acres of additional Planned Development). It is assumed that the remaining land within the Basin will ultimately be a combination of urban and agricultural uses. Of the up to 8,750 acres of Mitigation Lands that the NBHCP contemplates being under TNBC control for mitigation of the Land Use Agencies' Authorized Development, it is anticipated that approximately 50% (4,375 acres) would be in rice production cultivated consistent with the NBHCP Conservation Plan (Chapter IV) that promotes increased habitat values, approximately 25% (2,187 acres) would be enhanced as managed marsh, and approximately 25% (2,187 acres) would function as upland habitat. Should a giant garter snake recovery plan be adopted in the future, or as indicated from the results of monitoring in the Plan Area, or from new scientific information, reserve lands anticipated to be in rice production that are under the control of TNBC, acquired after recovery plan adoption or the availability of such information or monitoring results could be converted to managed marsh in accordance with the provisions of NBHCP Section Chapter VI, Section.H.2.

The NBHCP contains significant Adaptive Management provisions. Adaptive Management is a process that allows the NBHCP's Operating Conservation Program to be adjusted during the life of the permits to ensure that the most up-to-date peer-reviewed scientific information is being utilized, and that the Plan's biological goals and objectives are being achieved as described in Section VI.F of the NBHCP. Under its Adaptive Management provisions, the NBHCP can be modified if necessary to ensure that the most up-to-date information is being used under the OCP. However, adaptive management to benefit one species will not occur at the biological expense of another listed/Covered Species.

E. OVERALL BENEFITS OF THE NBHCP

The NBHCP will avoid, minimize and mitigate the impacts of any incidental take authorized by the Permits and is designed to assure that issuance of the Permits will not appreciably reduce the likelihood of the survival and recovery of the Covered Species. Overall, the NBHCP maintains wildlife values within the Natomas Basin and will produce a net positive effect for the Covered Species for the following reasons:

- (1) Permanent preservation. The 8,750 acres of land to be acquired over the

50 year life of the permits and maintained as wildlife reserves will enjoy permanent preservation status. The agricultural land within the reserves is guaranteed to be preserved in the future, and, as a result, is inherently more valuable to wildlife than agricultural land that is subject to future development.

- (2) Improved management of rice farming on TNBC's Mitigation Lands. The 4,375 acres of rice land to remain in cultivation under TNBC management as wildlife preserves will be managed to enhance wildlife values and to minimize incidental take of species during farming activities. Land management practices of TNBC will generally increase the habitat values of the agricultural land through modification of practices such as crop selection, minor adjustments to irrigation regimes, fallowing of crop lands and education of farm workers on the avoidance of incidental take of Covered Species.
- (3) 25% Restored Wetland Managed for Wildlife. Under the NBHCP, by the end of 50 years at least 25% of TNBC Mitigation Lands will be improved and restored as marsh habitat. If, however, USFWS provides written notification supported by documented evidence in the form of a written report and technical analysis regarding the adoption of a Giant Garter Snake Recovery Plan, the availability of monitoring results from the Plan Area or new scientific information indicating and adjustment in the enhancement and management activities for managed marsh is warranted, then the proportion of marsh habitat may be increased by the Permittees to as much as 75% of the Mitigation Lands acquired after the date of notification. This land will be managed to promote long term viability of wildlife populations. The enhanced marsh reserves will be of substantially greater habitat value than the current combination of fields and canals that are not managed to promote wildlife or avoid incidental take of species.
- (4) Enhanced Reserve Habitats. Enhanced habitat values and avoidance/minimization of incidental take allow more giant garter snakes and other Covered Species to inhabit a given amount of reserve land as compared to existing agricultural land.
- (5) Take Avoidance and Minimization. In addition to the permanent set aside and improvement of habitat values on TNBC lands, Authorized Development and Water Agencies' Covered Activities will adhere to guidelines to avoid, minimize and mitigate take. Mitigation measures that have been previously adopted for individual projects within the Basin would be applied more widely through the Basin in a consistent manner, thus maximizing application of take avoidance measures.
- (6) Expansion of Species Range. Reserve lands provide the opportunity to establish habitat for the Covered Species in areas which will improve the viability of the species and in some cases, expand their range.

F. REGULATORY BACKGROUND

The federal Endangered Species Act (ESA) is administered by the U.S. Department of the Interior, Fish and Wildlife Service (USFWS or Service). The California Department of Fish and Game (CDFG), as trustee for the State's fish and wildlife resources, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat for biologically sustainable populations of such species. In that capacity, CDFG administers the California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA), and other provisions of the California Fish and Game Code that afford protection to the State's fish and wildlife trust resources. CDFG also fulfills its charge as a trustee agency through implementation of and adherence to the California Environmental Quality Act (CEQA), a statute designed to facilitate disclosure and mitigation of project-related adverse environmental impacts, as well as informed public decision making.

Both the federal and state Endangered Species Acts provide protection for listed species. In particular, Section 9 of the federal ESA prohibits "take" of listed animal species. "Take" is defined by the ESA as: "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" with respect to any federally listed endangered animal species. Threatened animal species are protected against take under Federal regulation (50 CFR 17.31). Take not specifically allowed by federal permit under Section 10(a)(1)(B) of the ESA is subject to enforcement through civil or criminal proceedings under Section 11 of the ESA.

California law prohibits take of plant and animal species protected under CESA and NPPA, as well as take of species designated as "fully protected." The California Fish and Game Code defines take to mean "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Under case law, the prohibition against take extends to the killing of endangered, threatened or candidate species in the course of otherwise lawful activity. Thus, except as authorized under CESA, NPPA, and the Natural Communities Conservation Planning Act (NCCP), the unlawful take of plant and animal species listed as endangered or threatened under CESA, or the take of species that are candidates for listing under CESA, is prohibited by state law. Unlawful take of species protected by CESA and NPPA, and take of species designated as fully protected, is subject to fine and criminal prosecution under the California Fish and Game Code.

While take is typically understood in the sense of deliberately capturing or killing individual animals, the ESA also defines take to include "incidental take," which means take that is incidental to, but not the purpose of, the carrying out of an otherwise lawful activity. Under 50 CFR § 17.3, the definition of "harm" in the take definition includes "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Unlike ESA and its implementing regulations, the definition of take under CESA does not include the terms harm or incidental take. Any action, however, direct or otherwise, that results in the death or capture of a plant or animal species protected under CESA could constitute an unlawful take of such species as defined by state law.

Development of open lands in the Natomas Basin would likely result in take and, in the absence of appropriate permits, would therefore potentially be subject to federal and state enforcement. Operation and maintenance of water supply and drainage facilities and agricultural operations conducted on reserve lands managed by TNBC may also result in take of listed species. Implementation of and compliance with this Plan is intended to satisfy the incidental take permitting provisions of the ESA and CESA.

Additional Regulations. In addition to the Section 10(a)(1)(b) and Section 2081 Permits the NBHCP Permittees shall also comply with all other applicable local, state and federal regulations, laws or ordinances. This includes, but is not limited to, the following: U.S. Army Corps of Engineers Clean Water Act 404 permits; State Water Quality Control Board discharge notification requirements; CDFG 1600 Streambed Alteration Agreements; State and Federal Departments of Transportation laws and regulations; and USEPA and Department of Pesticide Regulation laws and regulations.

G. PLAN FORMULATION PROCESS

The formulation of the NBHCP has occurred over fifteen years and has involved many iterations, of which one version, the 1997 NBHCP, provided the basis for the Wildlife Agencies to authorize incidental take by the City of Sacramento within a portion of Natomas Basin. This process has also involved legal challenges and led to various combinations of Permittees seeking incidental take permits within the Natomas Basin. Provided below is a summary of major milestones in the formulation process of the NBHCP.

1986 - With record flood flows in the American River Basin and significant flood damage in the Sacramento area, the U.S. Army Corps of Engineers (Corps) undertook a study of flood control proposals.

1991 - The Corps produced the American River Watershed Investigation, along with an Environmental Impact Report/Environmental Impact Statement (EIR/EIS), which included the proposed Auburn Dam and flood control features for the Natomas Basin. USFWS recommended mitigation through creation of a wetland/ upland complex. Congress did not act on this flood control project, but did authorize federal reimbursement for a smaller flood control project proposed by Sacramento Area Flood Control Agency (SAFCA).

December 27, 1991 - The proposed listing of the giant garter snake was published in the Federal Register and public comment solicited.

February 1992 - SAFCA prepared a draft Swainson's hawk and giant garter snake HCP.

July 1992 - SAFCA began issuing for public comment a series of draft EIRs that examined the impacts of the local flood control project.

March 1993 - SAFCA applied to the Corps for a permit under 404 of the Clean

Water Act for a local project designed to bring 100-year protection to the Natomas Area.

October 1993 - The Service elevated the project under 404 of the Clean Water Act because the Corps would not address the indirect impacts of the flood control project. The Service recommended that a comprehensive basin-wide management plan be prepared to mitigate the loss of wildlife habitat associated with the indirect effects of the project.

October 20, 1993 - The Service published in the Federal Register its listing of the giant garter snake as a threatened species under the ESA.

November 1993 - The Corps agreed to address indirect effects through development of a habitat mitigation plan to be developed by SAFCA as a condition of their 404 Clean Water Act permit.

January 1994 - USFWS and CDFG began participating in the Natomas Basin Habitat Conservation Plan Working Group (the group included SAFCA, the wildlife agencies, Corps of Engineers, local Land Use Agencies, the Water Agencies, and landowners).

March 1994 - The Service issued a biological opinion that SAFCA's flood control project would not likely jeopardize the continued existence of the giant garter snake, based on the Corps 404 permit condition of completion of a habitat mitigation plan prior to the flood control work. (See also Appendix J.)

March 1994- June 1996 - SAFCA was the lead agency in developing the HCP and prepared and circulated for public comment three drafts, but later discontinued its efforts because it had no land use authority. (The three drafts were released March 1995, October 1995, June 1996). During this time period, public workshops were held to address concerns raised by the public. Each Workshop had a focus group including developers, the environmental community, and the rice industry.

November 1996 - The City of Sacramento took the lead for the HCP effort and published and submitted to the Service a fourth version, along with an application for an incidental take permit.

January 15, 1997 - The November 1996 version of the NBHCP was announced in the Federal Register and released for public comment. A draft Environmental Assessment (EA) was prepared and released with the draft NBHCP.

June 18, 1997 - The City's June 1997 draft NBHCP, draft Finding of No Significant Effect (FONSI) and draft IA were noticed in the Federal Register and released for public comment.

August 1997 - At public hearings, the City Council adopted a negative declaration under CEQA and approved the NBHCP and directed the City Manager to obtain ITPs.

November 1997 - The City revised and published the 1997 NBHCP.

December 1997 - The City, Service, CDFG, and TNBC executed an Implementation Agreement. The Service issued its final Biological Opinion, prepared a Finding of No Significant Impact (FONSI under NEPA), completed its Findings and Recommendations, and issued an Incidental Take Permit to the City. At the same time, CDFG, in reliance on the City's negative declaration as a responsible agency under CEQA, adopted findings pursuant to CESA, and issued a management agreement authorizing incidental take by the City consistent with the NBHCP pursuant to former Section 2081 of the US Fish and Game Code.

December 1997 - Water Agencies submit their separate Habitat Conservation Plan, Implementation Agreement, Incidental Take Permit Application, and 2081 application to the Service and to the CDFG.

January 1998 - The Mountain Lion Foundation and other environmental organizations filed suit against CDFG, alleging that CDFG's decision to authorize take by the City consistent with the NBHCP violated CESA and CEQA.

April 1998 - The City began collecting habitat mitigation fees and issuing urban development permits under the 1997 NBHCP.

December 1998 - The City appointed a board of directors for TNBC. TNBC began holding publicly noticed meetings and began its acquisition and management of habitat mitigation lands.

February 12, 1999 - The National Wildlife Federation *et al.* filed suit against the U.S. Fish and Wildlife Service, alleging that the Service's decision to issue Incidental Take Permit (ITPs) to the City violated the Endangered Species Act, NEPA, and the Administrative Procedures Act.

January 19, 2000 - Following a prior stipulated dismissal of petitioners' CEQA claim, the Sacramento County Superior Court ruled in favor of CDFG and upheld the City's incidental take authorization under CESA.

August 15, 2000 - In the lawsuit brought by the National Wildlife Federation *et al.* against the U.S. Department of Interior and the Service, Judge Levi held that the record did not support the Service's findings in issuing an ITP to the City.

November 2000 - Water Agencies submit revised Habitat Conservation Plan, along with its Implementation Agreement, to the Service and to the CDFG.

December 18, 2000 - The Service published in the Federal Register a Notice of Intent to prepare a joint EIR/EIS on the proposed issuance of new ITPs to the City and Sutter County. The City and Sutter County published a Notice of Preparation for a Joint EIR/EIS for the state permits on the same day.

December 21, 2000 - Judge Levi signed a stipulation agreed to by all parties to the

federal lawsuit that any judgement entered would not be effective with respect to the Natomas Basin Conservancy and that the incidental take permit will continue and remain in effect with respect to the Natomas Basin Conservancy and their land acquisition and management activities.

January 3 & 4, 2001 - Public workshops were held by the Service, Sutter County, and City of Sacramento. Mailings and newspaper notices were distributed prior to the workshops.

January 16, 2001 - The formal scoping period for the EIR/EIS ended. The Service, City and Sutter are using the scoping comments to assist in revising and preparing the NBHCP and EIR/EIS.

January 26, 2001 - The court entered judgment declaring that the incidental take permit (ITP) issued by the Service to the City for the NBHCP is no longer valid.

March 2001 - The Water Agencies join the City and Sutter revised NBHCP process. A Revised NOP/ NOI was prepared to indicate the Water Agencies participation in the NBHCP process.

April 18, 2001 - The revised NOP/NOI noticing the involvement of the Water Agencies in the HCP process was published in local newspapers and in the *Federal Register* on August 18, 2001.

May 15, 2001 - Judge Levi signed a Modified Order incorporating the agreement to settle litigation allowing limited development to proceed in exchange for acquisition of mitigation land in prioritized areas, and to reinstate the ITP issued on December 31, 1997 by the Service to the City for the sole purpose of effectuating the terms of the Settlement Agreement. Later the same month, the Court of Appeal for the Third Appellate District dismissed the appeal in the State litigation challenging CDFG's management authorization to the City.

January 2002 - The Water Agencies submit in writing their Best Management Practices and statement of Covered Activities which include a request for Take coverage for pesticide use. USFWS responds that Take coverage for pesticide use is in conflict with regional USFWS guidance policy (USFWS, *Inclusion of Pesticide and Herbicide Applications as a Covered Activity in an Endangered Species Act Section 10(a)(1)(B) Permit*, July 1998) limiting Take authorization for such chemicals.

January 2002 - March 2002 - Consultations between the USFWS, City, Sutter and the Water Agencies continue regarding the Water Agencies' request to seek Take coverage for pesticide and rodenticides. In March 2002, the City and Sutter decide to proceed with the HCP including coverage for all requested Water Agency Covered Activities with the exception of pesticides and herbicides. Also in March, the Board of Directors of the respective Water Agencies decide not to continue participation in the HCP. The Water Agencies continue to be represented in the HCP as a Permittee in the event they should choose at a future date to apply for Incidental Take Permits for the activities (excluding pesticides) authorized in the HCP and evaluated in the EIR/EIS.

March 2002 - Metro Air Park Property Owners Association (MAP POA) received incidental take permits for 2,011 acres of urban development. This area of disturbance is included within the 17,500 acres of Natomas Basin development described in this NBHCP.

H. LEGAL CHALLENGE IN FEDERAL COURT

On February 12, 1999, the National Wildlife Federation *et. al.* filed suit in federal court to challenge the Secretary of the Interior's decision to issue an incidental take permit to the City of Sacramento. On August 15, 2000, Judge David F. Levi issued a Memorandum of Opinion and Order. The Court held that the NBHCP in most respects satisfied the substantive requirements of the ESA as set forth in Section 10(a)(2)(a). The Court also held that, with one exception, relative to whether the Plan "minimizes and mitigates" expected impacts to the maximum extent, the Findings and the Biological Opinion were adequate with respect to the NBHCP as a whole. The Court also rejected the plaintiff's claims that biological uncertainties associated with, among other things, the NBHCP's adaptive management provisions undermined the legal adequacy of the Plan as a whole and found that the Service's decisions were based upon the best available scientific and commercial evidence.

The Judge's Order found four deficiencies with respect to issuance of the City's Section 10(a)(1)(B) Incidental Take Permit:

- (1) The record did not support the Service's findings in support of the NBHCP and the Section 10(a)(1)(B) ITP that the NBHCP would minimize and mitigate impacts on Covered Species to the "maximum extent practicable." This finding is referred to as the "Maximum Extent Practicable Finding" in Table I-2.
- (2) The record did not support the "No Jeopardy" findings contained in the Biological Opinion as it applied to issuance of the Section 10(a)(1)(B) ITP to the City of Sacramento. The Judge's Order concluded there was insufficient evidence to demonstrate that the NBHCP was economically and biologically sufficient to protect the listed species if the City was the only participant in the NBHCP which was designed as a regional plan. This finding is referred to as the "No Jeopardy Finding" in Table I-2.
- (3) The record did not support the Service's finding that the City would ensure adequate funding for the NBHCP as it applied to issuance of the Section 10(a)(1)(B) ITP. Judge Levi concluded that the City declined to ensure funding for the NBHCP in the event of a shortfall in mitigation fees collected from developers. This finding is referred to as the "Assured Funding Finding" in Table I-2.
- (4) The Service's decision to not prepare an Environmental Impact Statement for the NBHCP and Section 10(a)(1)(B) ITP was arbitrary and capricious.

The NBHCP has been revised to address Judge Levi's decision, address concerns

identified during implementation of the NBHCP, reflect regulations of the wildlife agencies established subsequent to the 1997 NBHCP, and in response to public review and comment. Table I-2 identifies where in the NBHCP these revisions have been made:

**TABLE I – 2
NBHCP REVISIONS**

Maximum Extent Practicable Finding (ESA Section 10(a)(2)(B)(ii))	
1. No development in Swainson’s Hawk Zone (HCP wide)	Section V.A.5
2. Require Preservation of Swainson’s Hawk Nesting Trees (HCP wide)	Section V.A.5
3. Remove 50% cap on funding for adaptive management / recovery plans (HCP wide)	Removed from NBHCP
4. Remove Area C as Mitigation Option (HCP wide)	Removed from NBHCP
5. Explicit Cap on Basin Development of 17,500 acres (HCP wide w/ specific acres for each Permittee - any new Permittee or increase over 17,500 invokes new analysis)	Sections III.A
6. Require assurance of 2,500 acre preserve and at least three 400 acre preserves (HCP wide)	Section IV.C.1.e
7. Mitigation measures related to drainage canals	Section V.B
8. Incorporate Mitigation Monitoring Plans	Section I.B.2
Analysis	
9. Comparison Study of Mitigation Fees in Surrounding Jurisdictions (HCP wide)	Appendix A
10. Quality of Habitat Analysis (lands of varying habitat value uniformly mitigated w/ high quality reserve habitat) (HCP wide)	Section VII. Impacts Analysis
11. Cost Benefit Analysis	Appendix A
12. FWS Analysis of Benefits of Plan for each Covered Species	Biological Opinion
Assured Funding Finding (ESA Section 10(a)(2)(B)(iii))	
13. Establish Separate Funding Mechanism Prior to Plan Approval that Provides City/ County w/ Authority to Raise \$ if TNBC/ FWS/ DFG Determine Additional \$ is Needed for Acquisition / Monitoring / Management /Etc. (Mechanism must remain in place for permit term even if permit is terminated) (City / County)	Section VI.B.2
14. Require Land Acquisition to be 200 Acres Ahead of Development (City - County)	Section VI.C.1

No Jeopardy Finding (ESA Sections 10(a)(2)(B)(iv) and 7(a)(2))	
15. Require Independent Mid-Point Review of Development for Each Permittee (City - 4,500 to 5,500 acres / Sutter - 4,000 acres)	Section VI.J
16. Require remaining Land Use Permittee to Independently Meet 2,500 Acre Preserve + 400 Acre Preserves with Additional Funding Mechanism if other Land Use Permittees Fail to Join or Drop-out	Section I.K
17. Biological Analysis Specific to each Permittee (City/ County) (see 12 above)	Section VII.D
Other HCP/ IA Modifications	
18. No Surprises Rule	Section VI.K
19. Changed Circumstances	Section VI.K
20. Five Point Policy	Throughout NBHCP
21. Single HCP with Individual Permittees' Obligations Identified	Section V
22. Single IA with Individual Permittees' Obligations Identified and a Severability Clause	Implementation Agreement
23. Annexation Analysis for 50 acre South Natomas Community Plan annexation and panhandle annexation (City)	Included in Section III under City Development
24. Annexation Procedure for Future Annexations (City)	Section 1.A, 1.B.2

I. REQUIREMENTS FOR THE ISSUANCE OF THE PERMITS

The NBHCP is intended to meet the requirements of the state and federal Endangered Species Acts. In addition to the Permittees' satisfaction of the application requirements for state and federal Incidental Take Permits through submittal of the NBHCP, the Permittees and the Wildlife Agencies must comply with state and federal environmental regulations set forth in the California Environmental Quality Act (CEQA) through preparation of an environmental impact report and the National Environmental Policy Act (NEPA) through preparation of an environmental impact statement.

1. Federal Permit

Section 10 of the ESA states:

"The Secretary [of the Interior] may permit...any act otherwise prohibited by Section 9 for scientific purposes or to enhance the propagation or survival of affected species...; or any taking [of fish and wildlife] otherwise prohibited by Section 9(a)(1)(B) if such taking is

incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."

Under Section 10(a)(2)(A) of the ESA, an incidental take permit application must be supported by a conservation plan that specifies the following (see Section VI. for an explanation of how the Plan meets these requirements):

- (1) the impacts likely to result from the taking of the species for which permit coverage is requested;
- (2) measures to monitor, minimize, and mitigate such impacts;
- (3) funding available to implement such measures;
- (4) alternative actions that would not result in taking;
- (5) reasons for not utilizing such alternatives;
- (6) responses to changed circumstances; and
- (7) any additional measures, the USFWS may require as necessary or appropriate for purposes of the plan.

Section 10(a)(2)(B) of the ESA specifies the issuance criteria which must be satisfied before the USFWS can issue an incidental take permit. These criteria include a requirement that the taking authorized by the permit "will not appreciably reduce the likelihood of the survival and recovery of the species in the wild."

Although not specifically required by the ESA, it is appropriate for the conservation actions taken under a Section 10(a)(1)(B) permit to assist in carrying out species recovery plans and to improve the status of listed species affected by the permit. The USFWS has prepared a Draft Giant Garter Snake Recovery Plan, and the NBHCP provides for modification of the NBHCP's operating conservation program for the snake at the time such a Final Recovery Plan is approved, to incorporate, as appropriate, measures recommended in the recovery plan. Similarly, the NBHCP provides for inclusion, as appropriate and within the limitations set forth in Chapter VI, of measures recommended in future recovery plans for other Covered Species following adoption of such recovery plans.

2. State Permit

For purposes of the NBHCP, take authorization by CDFG under CESA is governed by Section 2081 of the Fish and Game Code, as well as regulations set forth in Title 14 of the California Code of Regulations, commencing with Section 783.0. According to Fish and Game Code Section 2081, Subdivision (b), and Section 783.4, Subdivision (a), of Title 14, the Director of CDFG may authorize the take of endangered species, threatened species, and candidate species only where certain conditions are met. CDFG's implementing regulations provide, in pertinent part, that a permit may only be issued if the Director finds that:

- (1) The take authorized by the permit is incidental to an otherwise lawful activity.
- (2) The applicant will minimize and fully mitigate the impacts of the take authorized under the permit, including all impacts on the species protected under CESA that result from any act that would cause the proposed taking.
- (3) The proposed permit is consistent with any regulations adopted under Fish and Game Code Sections 2112 and 2114, of which both pertain to the development and adoption of recovery plans for certain specific species.
- (4) The applicant has ensured adequate funding to implement the measures required under the permit to minimize and fully mitigate the impacts of the taking, and to monitor compliance with, and the effectiveness of, the measures.

Section 2081 and its implementing regulations also provide that no incidental take permit shall be issued by CDFG if issuance of the permit would jeopardize the continued existence of the species. In making its determination regarding jeopardy, CDFG must base its decision on the best scientific and other information reasonably available, and shall consider the species' capability to survive and reproduce, and any adverse impacts of the taking on those abilities in light of known population trends, known threats to the species, and reasonably foreseeable impacts on the species from other related projects and activities.

See Sections IV.A through IV.D, for an explanation of how the Plan meets the specific requirements set forth in the two preceding paragraphs.

Take authorization by CDFG is also governed by a number of statutory directives. The California Fish and Game Code provides, for example, that state agencies, including CDFG, should not approve projects as proposed which would jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent further jeopardy (See generally Fish & Game Code, § 2081, subds. (B)(1)-(4),(c); Cal. Code Regs., Tit. 14, §§ 783.2, 783.4). Likewise, CESA directs CDFG, together with the project proponent and the state lead agency, to develop reasonable and prudent alternatives to the proposed activity that are consistent with the statutory charge to conserve protected species, as well as the charge to maintain the project purpose to the greatest extent possible.

Consistent with these obligations, the California Fish and Game Code provides that, where a person is required to provide mitigation or alternatives to address a particular impact on a species protected under CESA, the measures or alternatives shall be roughly proportional to the extent of any such impact caused by that person. Moreover, where various measures or alternatives are available to meet this obligation,

those ultimately required must maintain the applicant's objectives to the greatest extent possible. State law also prescribes that any such measures or alternatives must be capable of successful implementation.

Finally, under CESA, all state agencies, including CDFG, shall seek to conserve endangered species and threatened species, and such agencies are directed to use their authority in furtherance of the purposes of the statute (See generally Fish & Game Code, § 2081, subds. (B)(1)-(4),(c); Cal. Code Regs., Tit. 14, §§ 783.2, 783.4). In this regard, conservation means to use, and the use of, all methods and procedures which are necessary to bring an endangered or threatened species to the point at which the measures provided by CESA are no longer necessary.

In addition to CESA, CDFG must comply with CEQA prior to take authorization based on the Plan. CDFG's principle obligation is to comply with CEQA's "substantive mandate." That is to say, regardless of whether CDFG serves as a lead or responsible agency under CEQA, CDFG must consider mitigation measures and alternatives that might avoid or substantially lessen the potentially significant impacts of the proposed taking, and adopt such measures or alternatives where feasible. Other specific obligations required of CDFG under CEQA are set forth in Title 14, Section 783.5, of the California Code of Regulations.

J. STRUCTURE OF THE PLAN

The NBHCP is a supporting document for Federal Section 10(a)(1)(B) and state Section 2081 permit applications. It describes the Biological Data (Chapter II) and the Land Use Issues (Chapter III) that are relevant to the formulation of the Plan. The Conservation Plan is described in Chapter IV. The avoidance, minimization and mitigation measures required by Permittees are defined in Chapter V. The overall Plan Implementation is described in Chapter VI. A description of the impacts to Covered Species of activities addressed by the Plan and expected take levels are included as Chapter VII, Impacts of the Plan. References are provided in Chapter VIII.

All Figures referenced throughout the NBHCP are bound together at the end of the document.

Several key documents which provide a greater level of detail on certain issues than the NBHCP are attached as Appendices (e.g., Appendix A, Economic Analysis of the NBHCP). The specific terms of the NBHCP that affect the rights and obligations of the permit recipients are specified in the Implementation Agreement. The NBHCP Implementation Agreement for the City and Sutter is published under separate cover, but is also attached to the NBHCP as Attachment A.

K. RELATIONSHIP OF THE PLAN TO INDIVIDUAL PERMITTEES

The Plan is intended to support ESA Section 10(a)(1)(B) and CESA Section 2081 permit applications from the City, Sutter, TNBC, RD1000, and Natomas Mutual. An Implementation Agreement will describe the obligations of each of the Permittees.

In addition to the five Permittees noted above, a separate HCP has been approved by USFWS and CDFG for Metro Air Park (MAP). The NBHCP, in making its estimate of the total additional urban development which would take place within the Plan Area during the next 50 years, took into account the land disturbance that will occur within the MAP project area (1,983 acres of disturbance including required off-site improvements and excluding off-site impacts already counted in the City's allowed development). The Permittee for the MAP HCP is the Metro Air Park Property Owners Association (MAP POA) and the fees for development occurring in association with the MAP project will be collected by the County of Sacramento and transferred to TNBC to fund habitat preservation, enhancement and restoration on TNBC reserves. The MAP HCP follows the NBHCP conservation strategy and also provides for incorporation of all applicable future revisions or amendments to the NBHCP. Under the MAP HCP, the reserve acquisition and management will be carried out by TNBC in a manner consistent with the NBHCP. Apart from its obligations with respect to the Metro Air Park HCP, no further participation of the County of Sacramento in the NBHCP has been proposed.

The Permit Area for each of the Permittees (e.g., City of Sacramento, Sutter County, RD1000, Natomas Mutual and TNBC) comprises each jurisdiction's respective geographic portion of the NBHCP Plan Area, and those activities, for which each of the Permittees is seeking coverage. In the case of the Land Use Agencies, the Permit Areas are those areas designated for urban development for each jurisdiction as identified on Figure 16. The NBHCP does not provide coverage for take of Covered Species associated with development outside of Areas identified on Figure 2. Coverage for any development outside of those areas will require a major amendment to the NBHCP and a permit amendment or a separate HCP and permit as described under Sections I.B.2.a and b.

It is anticipated, but not essential to the successful implementation of the Plan, that the City, Sutter County, TNBC, RD 1000 and Natomas Mutual will each adopt the NBHCP. Based upon the NBHCP, each Permittee will apply separately for, and obtain Section 10(a)(1)(B) and Section 2081 permits applicable to activities within each Permittee's respective Permit Area. The NBHCP is designed to assure that each individual Permittee will minimize and mitigate take-related impacts under the NBHCP that are incidental to otherwise lawful, Covered Activities carried out by the Permittee or third parties under the direct control of the Permittee. The obligations of each Permittee under the NBHCP are independent and do not depend on the participation of any other Permittee. Similarly, the failure of one Permittee to fulfill its obligations under the plan, or the failure of one of the Land Use Permittees to obtain incidental take permits in reliance on the plan will not effect the viability of the plan or affect the permits of the remaining Permittees. For example, each Land Use Agency, (i.e., the City of Sacramento and Sutter County) is responsible under the Plan for minimizing and mitigating the effects of Authorized Development occurring within its individual Permit Area. Additionally, while the City of Sacramento and Sutter County are jointly responsible for establishing a 2,500-acre reserve by the end of the 50 years, if either the City or Sutter County were to drop out of the plan, the remaining land jurisdiction would remain independently responsible for establishing the reserve.

An additional concern related to implementation of the NBHCP by a single Land Use Permittee is the type of habitat within the participating jurisdiction. Specifically, the currently existing habitat within the City of Sacramento tends toward upland habitat, while habitat within Sutter County is more typically wetland (rice production). In fact, the variation between habitat characteristics within the two jurisdictions has increased in recent years as development within the City has proceeded. This is a result of both a natural rotation of crop cultivation in response to market conditions and soil capabilities, as well as the tendency for landowners to cease rice cultivation prior to undertaking development. For example, agricultural lands formerly in rice cultivation within the MAP HCP were removed from agricultural production in 1997.

Aside from the transition of agricultural practices noted above, there remains some variation in the habitat types within the City's and the County's Permit Areas. If one of the Land Use Permittees does not implement the NBHCP, then the conservation plan will be reviewed and adjusted as determined appropriate to ensure a balance between types of habitat impacted by Authorized Development and types of habitat preserved by TNBC. This adjustment will be informed by the biological monitoring requirements of the NBHCP and implemented through the Plan's adaptive management provisions. Thus, although the mitigation strategy provided for under the NBHCP would mitigate for effects resulting from the Land Use Agencies' Covered Activities, because the percentage of uplands to wetlands differs between their respective Permit Areas, the NBHCP allows for the mitigation strategy provided for under the NBHCP to be reevaluated in the event either the City's or Sutter County's permits are terminated or revoked, or a Permittee (other than TNBC or the Water Agencies) chooses not to participate in the NBHCP. The mitigation strategy would be reevaluated to ensure that the configuration of TNBC Reserve lands provided for under the NBHCP continues to adequately mitigate for the impacts of Authorized Development in the remaining jurisdiction.

Finally, TNBC will implement management practices defined by the NBHCP and modify such practices through the adaptive management provisions regardless of whether one or both of the Land Use Agencies or other Permittees participates in the NBHCP. Thus, even if one of the Land Use Agencies does not participate in the Plan, the impacts of development in the participating Land Use Agency will be adequately mitigated under the Plan.

Similarly, if either or both of the Water Agencies participates in the NBHCP, each participating Water Agency will be obligated to mitigate the effects of its operations and maintenance activities regardless of the participation of the other Water Agency. Moreover, as Permittees under the NBHCP, the operations and maintenance activities of RD 1000 and of Natomas Mutual would enhance the quality of waterway habitats within the Natomas Basin regardless of whether the Land Use Agencies participate in the NBHCP. Conversely, avoidance, minimization and mitigation measures applied to the Land Use Agencies' Permit Areas under the NBHCP's Operating Conservation Program that will mitigate the impacts of Authorized Development of the Land Use Agencies and will ensure the viability of Covered Species is not appreciably reduced by Authorized Development. Thus, the impacts of each of the Permittees' Covered Activities will be mitigated under the Plan regardless of whether the other Permittees

continue their participation in the Plan.

Further assurance of NBHCP implementation is provided through the Independent Mid-Point Reviews required of both Land Use Agencies. During these reviews, the City and Sutter must demonstrate substantial progress toward establishing the 2,500-acre preserve and ensuring that the remaining preserves will ultimately meet the minimum 400-acre size at the end of 50 years. The Independent Mid-Point Reviews provide a comprehensive review of the status of NBHCP implementation and the success of mitigation measures, in addition to ensuring progress toward the establishment of a 2,500-acre reserve and an overall minimum 400-acre reserve size at the end of 50 years.

If either of the Land Use Agencies decided not to allow urban development within its jurisdiction within the Natomas Basin, then there would be no need to mitigate for that agency's development impacts through the NBHCP, since there would not be any impacts if development did not take place. If a Land Use Agency decided to pursue another HCP instead of the NBHCP in order to obtain its incidental take permit, then such other HCP would have to be complimentary with the NBHCP. In either event, the applicable provisions of the NBHCP could still be implemented to mitigate for the impacts of a participating agency's activities within the Natomas Basin.

L. ENVIRONMENTAL COMPLIANCE

In 1994 and 1988, the City of Sacramento prepared environmental impact reports (EIR) for the adoption of the North Natomas and South Natomas Community Plans respectively, and other land use approvals authorizing urban development within the Natomas Basin. Sutter County currently is undertaking the preparation of an EIR for adoption of a specific plan and related land use approvals for development within the Sutter County portion of the Natomas Basin.

The City of Sacramento, Sutter County, and the USFWS jointly will prepare a combined environmental impact report (EIR) and environmental impact statement (EIS) prior to approval of the NBHCP and ITPs. The City of Sacramento and Sutter County will serve as co-lead agencies under the California Environmental Quality Act (CEQA) with respect to the preparation of the EIR prior to taking any action to adopt the NBHCP. The Department of Fish and Game, as a responsible agency under CEQA, will rely on this EIR, prior to taking its action to approve 2081 permits, Streambed Alteration Agreements, and any modifications to previously issued permits. The EIR/EIS may also be used to satisfy the requirements of CEQA and NEPA, to the extent allowed under state and federal law, should RD 1000 choose to participate in the NBHCP and apply for an incidental take permit in the future.

The USFWS will serve as the Federal lead agency for the preparation of the environmental impact statement (EIS) under the National Environmental Policy Act, prior to taking any action adopting the NBHCP and approving issuance of ITPs to the Permittees.

M. SPECIES COVERED BY THE PERMIT

Based on coordination with the USFWS and CDFG and the results of field surveys, the 22 species listed in Table I-1 have been identified as potentially subject to take or loss as a result of activities described in the NBHCP and are "Covered Species" under the NBHCP and its associated state and federal permits. "Covered Species" under this Plan means those species that are conserved by NBHCP and will be listed on the Section 10(a)(1)(B) and Section 2081 permits.

Some species shown in Table I-1 are listed under the state or federal ESAs while others are currently unlisted. All species addressed in the NBHCP as Covered Species will be included in the state and federal permits issued in accordance with the Plan. If a Covered Species addressed by the NBHCP is elevated from non-listed to protected status under ESA (threatened or endangered) after the issuance of an incidental take permit to an individual Permittee, then permit coverage for the newly listed Covered Species would become effective upon the final listing of the species. Under CESA, the Section 2081 Permit shall become effective to permit the Incidental Take of such species in connection with Authorized Development within each Permittee's Permit Area as of the date the species is accepted and designated as a candidate species pursuant to California Fish and Game Code section 2074.2, upon confirmation by CDFG that substantial evidence demonstrates that the Section 2081 Permit will continue to meet the standards in California Fish and Game Code Section 2081 (b) and Title 14 of the California Code of Regulations, Section 783.4 for the Additional State Protected Species and in accordance with the standards set forth in Section 6.2.4 of the NBHCP Implementation Agreement.

Two listed wildlife species are known to be widely distributed in the Natomas Basin and would be affected by anticipated urban development. The federally and state listed giant garter snake (GGS) inhabits rice fields, drainage canals, remnant sloughs and marsh, and adjacent open areas in the Basin. The state listed Swainson's hawk generally nests along the Sacramento River on the western edge of the Basin and in isolated trees and groves throughout the Basin and may forage within the Basin. Other species are more localized in their distribution or may be present in association with particular habitats such as vernal pools or elderberry bushes. Many migratory bird species occur in the Basin occasionally during the winter and utilize the Basin for foraging and resting areas during migration and wintering. Several species occur only occasionally or have very localized distributions within the Natomas Basin but may become breeding or resident or expand their distributions in response to habitat restoration and enhancement proposed under this

Plan. One tricolored blackbird colony is known to exist in the Basin and is located on existing TNBC reserve lands. Additionally, burrowing owls are known to occur within the Natomas Basin and appropriate measures have been included in the NBHCP to minimize and mitigate take of burrowing owls. Burrowing owl nesting sites are located on TNBC reserve lands.

The NBHCP covers seven (7) plant species. Take of listed plants is not prohibited under the ESA and therefore will not be authorized under the federal incidental take permits. Plants are included as a Covered Species under the NBHCP and will be listed on the federal permits in recognition of the conservation measures provided for them

under the NBHCP. Plant species covered under the NBHCP will also be provided assurances under the federal “No Surprises” rule. The NBHCP also covers the seven plant species for CESA purposes.

N. COVERED ACTIVITIES

Described herein are the specific activities for which the Permittees will be provided incidental take coverage under the NBHCP Permits. Due to the similarities and differences of the Covered Activities of the Permittees and TNBC, this section is divided into Land Use Agencies (City of Sacramento and Sutter County), the Water Agencies (RD 1000 and Natomas Mutual) and the Plan Operator (TNBC).

1. Land Use Agencies’ Covered Activities

For purposes of the Plan, and the Land Use Agencies’ respective Section 10(a)(I)(B) and Section 2081 permits, the Land Use Agencies’ Covered Activities are the following:

- a. Authorized Development projects sponsored by either private developers or public entities that occur within the respective Permit Area of the Permittee, residential, commercial, industrial and similar urban development projects, including infrastructure improvements within the respective Permit Areas, required to support Authorized Development.
- b. Total Authorized Development not to exceed 15,517 acres (the City-8,050 acres and Sutter- 7,467 acres). This total does not include 1,983 acres of urban development associated with the Metro Air Park (MAP) project for which incidental take has been authorized by separate permits. However, the 1,983 acres of development in the MAP project are included in the 17,500 acres of total development in the Natomas Basin for purposes of analyzing the overall impacts of urban development in the Basin and evaluating the viability of the conservation strategy provided under the NBHCP. The Authorized Development covered by the incidental take permits sought by the City of Sacramento and Sutter County represent the 15,517 acre balance of Natomas Basin development after subtracting the 1,983 acres of development within the MAP project.
- c. Authorized Development that affects vernal pool and aquatic species which are covered by the NBHCP, whether or not such development also requires a permit under Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act or other federal regulations that would trigger an ESA consultation. As of April 2002, there were no known vernal pools located within the City’s or Sutter County’s Permit Areas. However, pre-construction surveys for past City projects have identified small, isolated vernal pools. It is anticipated additional small pools, that are as yet unidentified, will be found during future pre-construction surveys.

- d. The following public facility projects proposed by the Land Use Agencies outside of their respective jurisdictions:
- (1) Sutter County drainage improvements associated with the proposed South Sutter County Specific Plan that include expanding two existing drainage channels; the Montna Drain (approximately 80 feet by 8,000 feet upon completion) and the Natomas East Drain (approximately 90 feet by 8,000 feet upon completion). It is anticipated that the proposed Sutter County drainage improvements will convert approximately 16.5 acres of existing agricultural land to drainage channel. This land is subject to payment of NBHCP fees is part of Sutter County's total 7,467 acres of Authorized Development and is covered by Sutter County's permit.
 - (2) City of Sacramento public improvements occurring outside of the City limits include 10.4 acres of drainage improvements to widen the West Drain in Sacramento County, along the western City limits. Area of disturbance for this drainage improvement is included within the City's total 8,050 acres of Authorized Development. The area has already been disturbed in compliance with the 1997 HCP.
 - (3) Metro Air Park off-site improvements fall partially within the City of Sacramento Permit Area and partially within Sacramento County. MAP's off-site improvements located in Sacramento County include drainage, sewer, and roadway improvements. MAP off-site improvements occurring in Sacramento County have been included within MAP's 1,983 acres of disturbance. The MAP off-site improvements occurring in the City of Sacramento (approximately 28 acres) while authorized under MAP's incidental take permits are included within the City's 8,050 acres of Authorized Development.

2. Water Agencies' Covered Activities

For purposes of the Plan, and the Water Agencies' respective Section 10(a)(I)(B) and Section 2081 permits, the Water Agencies' Covered Activities consist of activities undertaken by the Water Agencies and their authorized agents as follows:

- (1) De-silting
- (2) Excavation and re-sloping of ditches and channels
- (3) Deposition of ditch and canal spoils materials on adjacent property
- (4) Placement of fill material
- (5) Control of vegetation in and around canals, ditches, and drains by mowing and other measures to provide necessary operation and maintenance of canals as needed. Vegetation management plans would be presented to the NBHCP TAC for review and to the Wildlife Agencies for approval on a

three year basis.

- (6) Construction and improvement with no increase to the existing footprint, of flood control and water conveyance facilities, water ditches, canals, pumphouses or maintenance facilities, and other ancillary facilities that are owned or operated by RD 1000 or Natomas Mutual.

The Water Agencies' Covered Activities do not include the construction, maintenance, operation, or closure of river diversion facilities and accompanying fish screens owned or operated by Natomas Mutual in the Natomas Basin.

3. TNBC Covered Activities as Permittee and Plan Operator

As the Plan Operator, TNBC, its authorized agents, and other third parties under its direct control are granted coverage under TNBC's Incidental Take Permits for its Permit Area. TNBC's Permit Area includes the entire Plan Area, as well as, the levees bounding the Natomas Basin and extending to the edge of water immediately outside the Natomas Basin levees, and Area B, as depicted on Figure 20, Out of Basin Mitigation Areas.

(Note: During the final NBHCP approval process by the City Council of the City of Sacramento and the Board of Supervisors of Sutter County, authorization to purchase Mitigation Lands to offset the impacts of development was limited to the Natomas Basin and the "outer" ring around the levees of the Natomas Basin. No authorization to purchase lands to mitigate impacts of Authorized Development in Area B (out of basin area) was granted by the City Council and the Board of Supervisors.)

Within the TNBC Permit Area, TNBC is provided incidental take coverage for managing reserves, preservation activities, creation and restoration activities, enhancing reserves, and monitoring Mitigation Lands.

O. ACTIVITIES NOT COVERED BY THE NBHCP

Specific activities not covered by the NBHCP and its associated Permits include the following:

1. Agricultural Activities. Except as provided for TNBC management of reserve lands, agricultural activities are not Covered Activities under the NBHCP and the NBHCP Permits.
2. Dredging. Except as provided for the Water Agencies' channel maintenance, dredging is not a Covered Activity under the NBHCP and the NBHCP Permits.
3. Additional Regulations. In addition to the Section 10(a)(1)(b) and Section 2081 Permits the NBHCP Permittees shall also comply with all other applicable local, state and federal, regulations, laws or ordinances. This includes, but is not limited to, the following: U.S. Army Corps of Engineers Clean Water Act Section 404 permits; State Water Quality Control Board/Regional Water Quality Control

Board Section 401 water quality certification and/or waste discharge requirements; CDFG Streambed Alteration Agreements pursuant to Fish and Game Code Division 2, Chapter 6, Section 1600 *et. seq.*; State and Federal Departments of Transportation; and USEPA and Department of Pesticide Regulation.

4. Relationship of Plan to Section 7 Consultations. Private or public actions that are Covered Activities under the NBHCP may also be subject to separate Section 7 review if those actions are authorized, carried out, or funded by Federal agencies. Incidental take for Covered Activities carried out by the Permittees or third party developers acting under the authority of an urban development permit issued by either the City or Sutter County will be granted under the permits and will be subject to the take mitigation, minimization and avoidance measures provided for under the NBHCP. Incidental take coverage for the federal action agency will be granted through the incidental take statement issued with the USFWS' Section 7 biological opinion. Actions requiring Section 7 consultations are not covered for incidental take until formal consultation has been completed and all appropriate federal permits and/or approvals have been obtained.

P. ADAPTIVE MANAGEMENT PROVISIONS

Adaptive management is a method for examining alternative strategies for meeting measurable goals and objectives, and then, if necessary, adjusting future conservation and management actions according to what is learned. The adaptive management strategy includes milestones (specific periodic evaluations) that are reviewed at scheduled intervals during the lifetime of the incidental take permits and Covered Activities. The frequency interval of these evaluations will be based on the relative degree of risk to the Covered Species and habitats.

Adaptive management uses new information derived from monitoring, scientific research, and Plan implementation to revise conservation plans as part of a continual feed-back loop. Plan implementation information includes, but is not be limited to, the effectiveness of incidental take avoidance and minimization measures, reserve management techniques, and Plan funding adequacy. The adaptive management strategy must define the feedback process and incorporate feedback loops that link implementation and monitoring to a decision-making process. Incorporating new monitoring information is necessary to effect changes in management to achieve the Plan's biological goals and objectives.

Adaptive management requires a commitment of science to the conservation process in perpetuity. Rigorous scientific standards need to be applied both to research and monitoring, and research and monitoring are inextricably linked. Information from on-site monitoring (e.g. population trends of target species, responses of a community to prescribed burning, species diversity of actively restored and managed reserves) is combined with data from research (e.g., population genetics or dispersal behavior of target species) to inform and revise site-specific and regional management plans.

Adaptive management can assist the Wildlife Agencies and Permittees in improving the effectiveness of the Operating Conservation Program. The NBHCP Adaptive Management strategy will:

- (1) Identify the uncertainty and questions that need to be addressed to resolve the uncertainty;
- (2) Develop alternative strategies and determine which experimental strategies to implement;
- (3) Integrate the monitoring program that is able to detect the necessary information for strategy evaluation; and
- (4) Incorporate feedback loops that link implementation and monitoring to the decision-making process that will result in appropriate changes in management to achieve biological goals and objectives of the Plan.