I. INTRODUCTION

The Metro Air Park (MAP) project is contained within the much larger Natomas Basin. The MAP Habitat Conservation Plan (HCP) calls for participation in the multi-species conservation program established under the Natomas Basin Habitat Conservation Plan (NBHCP) to minimize and mitigate the expected loss of habitat values on its 1,892-acre property and on the 123-acre off-site infrastructure improvement area. The NBHCP was prepared as a regional plan for the entire Natomas Basin. The NBHCP promotes biological conservation along with economic development and continuing agriculture.

Implementation of the MAP HCP, however, is independent of the NBHCP and the MAP HCP does not rely on implementation of the NBHCP to mitigate for the impacts of the MAP development.

A. Site description

The 1,892-acre MAP project site is located northwest of the City of Sacramento in Sections 20, 29, and 32 of Township 10 North, Range 4 East, USGS Taylor Monument 7.5 minute quadrangle map in the unincorporated area of Sacramento County, California (Figure 1, Regional Location). The site is located immediately east of the Sacramento Metropolitan Airport on the north side of Interstate 5.

The site is located in the 53,341-acre Natomas Basin an agricultural/rural area. The site is primarily flat agricultural land with occasional wetlands, irrigation and drainage ditches, and a few agricultural related structures and rural residences. The agricultural ditches support a variety of riparian vegetation such as cattails, willows, alders, thickets of blackberry, and various perennial and annual riparian plants.

B. History of Conservation Planning Process

During the period 1994-1996, the Sacramento Area Flood Control Agency (SAFCA) developed the Draft Natomas Basin Habitat Conservation Plan (NBHCP). The plan was intended to guide development, conservation, and other land use decisions throughout the Natomas Basin. It was also intended to supported expected Endangered Species Act (ESA) Section 10(a) (1)(B) and California Endangered Species Act (CESA) Section 2081 permit applications from affected land use agencies, water companies, or other entities with relevant land use authorities or activities within the Natomas Basin (i.e., City of Sacramento, Sacramento County, Sutter County, Reclamation District 1000 (RD1000), and the Natomas Central Mutual Water Company (NCMWC)). The NBHCP was developed as a regional plan to provide a regional conservation strategy for the protection and conservation of threatened, endangered and sensitive species and their habitats in the Natomas Basin. While each affected entity in the basin is free to submit its own HCP, it was anticipated that most would either adopt the NBHCP or prepare a separate HCP compatible with the regional plan.

In 1996, the City of Sacramento developed a modified version of the previous HCP and submitted a separate incidental take permit application for land within its jurisdiction in the Natomas Basin. The City received an incidental take permit (PRT-823773) from the USFWS on

December 31, 1997 for 24 species including the14 species proposed to be covered by the MAP permit. The City of Sacramento's NBHCP is referred to as the "Regional HCP" because the City's NBHCP, like the earlier SAFCA draft plan, describes the regional mitigation program for the entire Natomas Basin.

The primary mitigation measures in the approved City NBHCP, dated November 1997 are summarized below:

The Natomas Basin Conservancy (NBC) will serve as Plan Operator and carry out habitat acquisition and management activities set forth in the NBHCP. The NBC was formed as a non-profit California corporation in 1994.

A system of habitat mitigation lands or reserves will be established which will provide wetland and upland habitat values for giant garter snake, Swainson's hawk, and other species. The NBHCP requires that one-half acre of mitigation land be conserved for each acre of land that is developed in the Basin.

The mitigation land will be acquired using mitigation fees paid by developers. Fees will be paid based on the gross acres of land approved for development. An initial base fee of $2,656 per acre was established through a funding study that was prepared by Economic and Planning Systems, Inc. This fee was increased in September 2000 by the City Council to $3,941, and again in June 2001 to $5,993. The annual fee will be adjusted for inflation each year and, as necessary, to reflect increases in operation and land costs, adaptive management, and plan modifications resulting from GGS Recovery Plan implementation.

Individual landowners must conduct pre-construction surveys for covered species and, depending on the results of the surveys, implement specific minimization measures to reduce direct take of covered species on specific development sites.

One habitat block for the wetland reserve system must be a minimum of 2500 acres in size and the balance of wetland reserve lands must be in habitat blocks a minimum of 400 acres in size.

The wetland reserves in the Natomas Basin must be hydrologically connected to the existing system of canals and ditches and must have an adequate water supply and adequate water rights.

The habitat reserves must be adequately buffered from the effects of adjoining land uses, including public roads.

The NBHCP's mitigation program summarized above is also referred to as the "regional mitigation program" throughout this document.

The MAP project is outside of the City limit lines, thus the project can not be covered by the City's incidental take permits and because the County has not applied for permits for its portion of the Natomas Basin, the Metro Air Park Property Owners Association (MAP POA) is seeking separate incidental take permits for the MAP project.

A federal court ruling on August 15, 2000, held that the USFWS decision to issue the City's permit and its decision not to prepare an Environmental Impact Statement (EIS) for the project were arbitrary and capricious. The City, along with Sutter County, is preparing a revised HCP for the Natomas Basin that will address the court's concerns and support the issuance of a new permit to the City and issuance of a permit to Sutter County. The MAP HCP addresses the concerns of the court as they pertain to the MAP project.

On May 10, 2001 a Settlement Agreement was executed by several environmental groups (plaintiffs in the aforementioned law suit), the City of Sacramento and Natomas Basin developers. The Agreement addresses a request by the City/developers to carry out limited development on 1,668 acres within the City's Permit Area pursuant to City-issued grading permits. The Agreement establishes enhanced conservation of the areas surrounding Fisherman's Lake, establishes reserves in one or two important presently unprotected habitat areas in the Natomas Basin area of Sacramento County, and ensures compliance with the protections established in prior environmental documents.

The Agreement allows the City to issue grading permits for up to 1068 acres of land prior to acquiring mitigation lands for such development. Once the 1068-acre threshold is reached, however, mitigation lands for the 1068 acres must be acquired before any additional grading permits are issued. Thereafter, mitigation lands must be acquired for each acre of the additional 600 acres of development allowed under the Agreement prior to the issuance of grading permit for that acre.

The Agreement specifically provides for the protection and maintenance of the Fisherman's Lake area which is important habitat for both the giant garter snake and Swainson's hawk, as well as other species. The Agreement requires that at least one parcel of land approximately 100 acres in size be acquired by the NBC prior to the issuance of any grading permits. An additional 250 acres of land must be acquired in identified zones in Sacramento County prior to the City issuing grading permits on more than 1360 acres of land.

The City's Settlement Agreement does not directly affect the MAP HCP.

C. Project Description

1. Development of Metro Air Park Project

The MAP HCP calls for participation in the multi-species conservation program established under the NBHCP to minimize and mitigate the expected loss of habitat values. The MAP POA would pay a mitigation fee based upon the number of acres disturbed by development. On behalf of MAP POA, the NBC is required to acquire habitat mitigation land at a 0.5:1 ratio (one half acre for every one acre developed). To mitigate for the loss of Swainson's hawk nest trees on-site, MAP POA will, either on its own or by providing funds to the NBC, secure 200 contiguous acres, in perpetuity. Under either option, the lands and fees to manage the lands will be turned over to the NBC to manage for the benefit of Swainson's hawk nesting. The mitigation will be implemented commensurate with the impact and will be funded sufficiently to manage the site.

The MAP Park project consists of the development of 1,892 acres with a combination of commercial, industrial, manufacturing, and airport related land uses (see Figure 2, Land Use Plan). The land use plan assessed in the Final Environmental Impact Report (FEIR), would result in the creation of:

- 617 acres of light manufacturing
- 296 acres airport related
- 167 acres office-retail/high tech/Research and Development
- 344 acres commercial
- 127 acres commercial professional offices/Corporate Headquarters
- 278 acres open space/golf course
- 58 acres roads and freeway interchange

Actual land use types and acres may vary from the above list subject to County review and approval. Land uses are distributed along a north/south central open space/recreation corridor to maximize the relationship between property frontage and open space. The open space and golf course are designed for draining water off the property during periods of heavy rain. The intent of the land use plan is to encourage the growth of land uses from two distinct core areas. This is an important feature of the plan as it would balance development pressure over time. Principal access to the project is via Elkhorn Boulevard extension and the proposed Metro Air Parkway linking Interstate 5 with Elverta Road. A FEIR for the Metro Air Park Special Planning Area (MAP SPA) was certified in August 1993 by the County of Sacramento. Modifications to the MAP SPA were proposed in 1997 and were the subject of a Supplemental EIR (SEIR). The Sacramento County Planning Commission held a public hearing on the SEIR on June 9, 1997. The Planning Commission recommended approval of the proposed Zoning Ordinance Amendments. The Sacramento County Board of Supervisors approved the project and certified the SEIR on September 10, 1997.

Development of the project area is being overseen by the MAP POA. The project area comprises 56 separate planning units. Although a specific plan for the phased development of the site has not been prepared, it is expected that development will take place over a fifty year period, being built in logical units as the market demands. Individual landowners will be covered by the incidental take permits if they are members of MAP POA (described in III.A.2 below), have signed MAP POA's covenants, conditions, and restrictions (CC&Rs) included as part of Exhibit G to the Implementation Agreement (IA), and have complied with specific mitigation measures contained in this HCP and its accompanying IA. Individual(s) or entities not members of MAP POA are not covered by this HCP.

"Tier One" initial on and off-site infrastructure improvements are required to allow development of the site. MAP POA will oversee construction of the Tier One improvements and payment of mitigation fees which will be funded through a Mello Roos (described in III.B.1) or a similar bonding mechanism. The improvements include extending Metro Air Parkway from I-5 to Elverta Road, extending Elkhorn Boulevard from Powerline Road to Lonetree Road, and installing drainage improvements along the golf course and south of Elkhorn Boulevard (Figure 3, Initial On-site Infrastructure Improvements). Also included is the installation of a new sewer trunk line to be contained within the proposed future Meister Way right-of-way from Metro Air Parkway to Highway 99 right-of-way, and then proceed south along Highway 99 to I-5 and the

Natomas Interceptor. Approximately 190 acres will be permanently disturbed to install the Tier One infrastructure improvements. Specific improvements and affected areas are contained in Table 2.

TABLE 2
TIER ONE INITIAL ON AND OFF-SITE INFRASTRUCTURE IMPROVEMENTS

INITIAL ON-SITE INFRASTRUCTURE IMPROVEMENTS	AREA (acres)
Elkhorn Boulevard	13.4
Metro Air Parkway	33.3
Freeway Embankment	28.3
Earthwork Balance & Offsite NCMWC Facilities	10.9
Road "B" /Meister Way Outfall	5.8
Road "G" Drain Line	3.8
Detention/Water Quality Facilities	47.7
Sewer Lift Station	0.3
Pump Station - 1 Sites	0.5
Well Sites - 2 Sites	0.4
Storage Reservoir and Booster Pump	3.5
Water Treatment Plant Site	1.5
Off-Site Sewer Line Extension	41.0
TOTAL	190.4

As Figure 3 indicates, development of the initial on-site infrastructure improvements would not affect current farming practices as they primarily involve roadway and drainage improvements. The drainage improvements would not affect water deliveries to agricultural lands. As many as 650 additional acres would be temporarily disturbed by initial project grading, but will be returned to their original agricultural land use upon completion of initial grading work. Most of the 650 acres to be temporarily disturbed are currently fallow.

Once the Tier One infrastructure improvements are completed by the MAP POA, individual landowners will submit site specific plans for each of the planning units and must obtain separate grading and building permits from the County as development proceeds. Individual landowner site development projects are part of the "Tier Two" development. MAP POA will regulate actions of landowners through CC&R's. Refer to Sections 3 and 4.3.4 of the IA for specific obligations of each of the MAP HCP participants.

2. Off-Site Infrastructure Improvements

The Metro Air Park project requires off-site drainage, sewer, and roadway improvements that would result in additional habitat loss both within Sacramento County and within a small area of the City of Sacramento. These off-site improvements would be covered by MAP POA's incidental take permit and would be mitigated in accordance with this HCP. Except for the sewer line extension, all off-site improvements will be constructed as part of Tier Two development. The off-site improvements covered are:

a. Drainage Facilities

All of the off-site drainage facilities are maintained by RD1000. Several off-site drainage facilities are needed to maintain the pre-project stages of all drainage facilities that exist downstream of the project. This will be accomplished by detaining 50% of the increase in on-site project flows and improving Reach 8, and replacing and upsizing some existing culverts. Upsizing the culverts will not change the canal configuration just the size of the culvert. The improvement of Pump Station No. 3 to convey project flows to the Sacramento River is being accomplished under separate permits by RD1000. Table 3 provides the area of impact estimated for each of the proposed RD-1000 off-site drainage improvements. The locations of the off-site drainage improvements are shown in Figure 4 and are numbered as indicated below in the Figure. Specifically, the improvements consist of:

Del Paso Road Culvert. Replace and upsize the culverts at Del Paso Road and West Drain Canal.

Power Line Road Culverts. Replace and upsize the culverts at Power Line Road and Canal Reach 5/7.

Canal Reach 4/5 Culverts. Replace and upsize culverts between canal Reach No. 5 and Canal Reach No. 4.

Canal Reach No. 8 Improvements. Acquire all required off-site drainage rights-of-way from the on-site pump station outfall to canal Reach No. 7. Widen and deepen Reach No. 8 and flatten side slopes to 2:1 and increase the capacity of I-5 culverts by jacking 2-78" culverts under I-5 parallel to the existing box culvert once the project pump station discharge demand exceeds 150 cfs. This canal currently has a width that ranges from 27 to 30 feet and a depth from 5 to 9 feet with a side slope range of 1:1 to 1.5:1. The upsized Reach 8 canal will have a final width ranging from 59 to 73 feet, a depth ranging from of 9 to 13 feet, and a side slope of 2:1. The side slopes will be revegetated with appropriate plantings.

Airport/NCMWC Irrigation Pump. Install an irrigation pump and drainage ditch south of

I-5 on the airport property. Once the Miester Road canal is filled, NCMWC will need an alternative route to supply irrigation water to the Airport property north of Interstate 5 and south of the east runway. The new pump will be installed south of I-5 along reach 4/5 and will pump water north via existing canals to the Airport property north of Interstate 5. The pump installation will take place prior to the Miester Road canal being taken out of service.

b. Sewer Facilities

Currently there are no Sacramento Regional County Sanitation District (SRCSD) sewer facilities located within the MAP development boundaries. The SRCSD plans to provide service to the MAP site through connection with the Natomas Interceptor which currently terminates at Del Paso Road and the Interstate 5 freeway, approximately two-miles south of the project boundary. The proposed route of the new trunk line is shown in Figure 4. It would be located within the proposed future Meister Way right-of-way from Metro Air Parkway to Highway 99 right-of-way, and then proceed south along Highway 99 to I-5 and the Natomas Interceptor. There is an alternative alignment from Elkhorn Road/99 to the Interceptor which is more northerly and would add about 6 additional acres of disturbance (refer to Figure 4). The alternative alignment is roughly 500 feet longer than the proposed alignment. Under the worst case scenario, the sewer installation would require a 100 foot wide by 17,700 foot long construction envelope and would affect 41 acres of land (see Table 3).

c. Roadway Improvements

Elkhorn Boulevard from Power Line Road to the Sacramento Airport. This extension of Elkhorn Blvd. from off of the MAP site to the Airport (Airport Boulevard/Crossfield Drive) would provide a direct connection from the MAP site to the Airport. The roadway would consist of one 13-foot car lane and a seven-foot bike lane in each direction. Construction of this roadway would impact 14 aces of off-site land (see Figure 4 and Table 3).

South Bayou Road Improvements are necessary to upgrade a non-standard section of roadway and to relocate South Bayou Road around the proposed 1-5/Metro Air Parkway interchange. South Bayou, from Power Line Road to 2000 feet east of Metro Air Parkway would be improved to two-lane arterial standards. There would be a 60 foot right-of-way with 60-feet of pavement to provide one 12-foot lane and one four-foot shoulder in each direction. Drainage would consist of a roadside ditch. Construction of these improvements would impact as much as 16 acres of land. See Figure 4 for project location.

Elkhorn Boulevard Widening between Lone Tree Road and State Route 99. Elkhorn Boulevard would be widened to three lanes in both the east and west bound directions. Shoulders would be included. Construction of this project would impact as much as 14.7 acres.

Elverta Road Widening between Lone Tree Road and State Route 99. Elverta Road would be widened to two lanes in both the east and westbound directions. Shoulders would be included. Construction of this project would impact as much as 9.7 acres.

Meister Way Extension between Lone Tree Road and State Route 99. Meister Way

would be developed into a four-lane roadway from Lone Tree to State Route 99. The disturbance associated with the new roadway would be included in the land area needed to install the sewer extension.

Improvements to Del Paso Road from Power Line Road to Sacramento City Limits. Improvements include reconstructing existing road to two-lane arterial standards and installing signals at South Bayou Road. The existing 26-foot roadway would be widened to 42 feet and would include a wider traffic lane as well as pull-off shoulders. .....

Improvements to Power Line Road from I-5 to Del Paso Road. Improvements include overlaying existing pavement, widening each side to two-lane arterial standards and installing signals at Power Line Road. The existing 26-foot roadway would be widened to 42 feet and would include a wider traffic lane as well as pull-off shoulders.

In total, about 123 acres of land would be affected by the off-site infrastructure improvements. MAP POA will oversee construction of the off-site infrastructure improvements and payment of mitigation fees which will be funded through the same Mello Roos bond (or a similar bonding mechanism) that funds the initial infrastructure improvements (see discussion of bonding mechanism, section III.B Funding). The off-site sewer installation will coincide with the on-site Tier One improvements adding about 41 acres to the total area disturbed during Tier One construction.

TABLE 3
OFF-SITE INFRASTRUCTURE IMPROVEMENTS

PROJECT	IMPACT	ACREAGE
RD-1000 Off-Site Drainage Improvements		
Del Paso Culvert	200'x200' work area	1.0
Power Line Road Culvert	200'x200' work area	1.0
Canal Reach 4&5 Culverts	100' wide x 400' long construction envelope	1.0
Off-Site Reach No. 8 Improvements	125' wide x 5,600' long construction envelope	16.1
Airport/NCMWC Irrigation Pump	50' wide x 4,000' long construction envelope	4.6
Sub-Total		23.7
Off-Site Sewer Improvements		

Meister Way/99/I-5 Trunk Line or Elkhorn Road/99/I-5 Trunk Line	100' wide x 17,700' long construction envelope (worst case)	40.7 (approx. 14 acres of the total is within the City limits)
Off-Site Roadway Improvements		
Elverta Road Improvements Lone Tree to 99		9.7
Elkhorn Blvd. Improvements Lone Tree to 99		14.7
Meister Way Extension to 99	disturbance area included in sewer line extension area. No additional disturbance.	0.0
Elkhorn Blvd. Extension to Airport		14.0
Del Paso Road from Power Line Road to City Limits, Improvements		2.0
Power Line Road from I-5 to Del Paso Road, Improvements		2.0
South Bayou Road Improvements		16.0
Sub-total		58.4
GRAND TOTAL		122.8

3. Site-specific Surveys and Canal Revegetation

Site-specific surveys including biological surveys have not been completed for MAP's off-site infrastructure improvement projects. The estimated total number of acres proposed to be affected by the off-site infrastructure projects is 123 acres and covered species are the only species anticipated to be affected by the infrastructure projects. MAPPOA will conduct the wildlife agency approved pre-project surveys including, but not limited to, biological surveys and provide the data and results to the USFWS and the CDFG to review. If during the pre-construction surveys it is determined that the total acres of land, type of habitat, or effects on covered species are greater than permitted, or uncovered listed species will be affected, then the permit must be amended, and MAPPOA will be responsible for payment of any additional

mitigation fees prior to any ground disturbance for those off-site projects. MAPPOA also will provide the USFWS and CDFG with post-project reports for all off-site infrastructure improvements

During the construction of off-site infrastructure projects, all habitat for listed vernal pool crustaceans will be avoided. All construction impacts (temporary or permanent), including direct and indirect effects, shall be kept a minimum of 250 feet from all vernal pool crustacean habitat and not affect the hydrology of the habitat.

Prior to implementation of any off-site canal improvements, a revegetation plan will be developed. The plan should replace any riparian vegetation removed due to construction activities and restore the canal to pre-construction conditions. The revegetation plan will include an analysis of pre-project habitat conditions, the impacts to the habitat that will occur due to construction and construction related activities (staging, borrow sites, access, etc.), and those measures necessary to restore the canal to the pre-project habitat conditions. Plantings should include appropriate native species, and where possible should include use of native grass seed. The revegetation plan will be submitted and approved by the USFWS and CDFG prior to implementing any canal improvements.

4. Rice Farming

Rice has historically been one of the agricultural products farmed on and around the MAP project site. Although rice is not being farmed on the MAP site at present, it could be farmed in the future until development of the MAP project phases out agricultural uses. Rice fields currently provide primary habitat for giant garter snake in the Natomas Basin. Because giant garter snakes use rice fields during most of the growing season, it is possible that individual snakes may be taken incidentally to normal rice farming. Consequently, landowners, who are members of MAP POA, and who choose to grow rice in a manner that benefits wetland species, including the periodic rotation of rice fields to other crops with the exception of orchards or vineyards, shall be covered for incidental take under the Section 10(a)(1)(B) and 2081 permits. In order to be covered for incidental take for rice farming MAP POA landowners, or their leasees shall employ Best Management Practices approved by USFWS and CDFG (Appendix C) to maximize compatibility of this land use with the protection of giant garter snakes and must also sign binding legal documents (Certificate of Inclusion) with MAP POA. Refer to IA for specific requirements on participation.

The permits would not cover the destruction of giant garter snake habitat through actions not normally associated with rice farming or the cultivation of agricultural crops that are not the result of periodic rotations from rice. Take resulting from pesticide (includes herbicides, rodenticides, fungicides, bio-controls) use in the MAP permit area is not covered under the MAP HCP and remains subject to the state and federal endangered species acts and other federal and state regulations which apply to pesticide use.

5. Continued Agricultural Uses on MAP Site

To protect habitat values on existing agricultural lands (see Section II.A.1), the following provision applies: any existing agricultural land in the MAP area will be subject to the payment of development mitigation fees if the landowner voluntarily elects to take land out of agricultural

production for a period of more than one year prior to the receipt of development permits on the land to which they apply or if lands are left fallow (not seeded) for over a period of three years. In addition, any lands temporarily disturbed as a result of initial infrastructure (Tier One) development that are not returned to agricultural use within 12 months of completion of the improvement, will also be subject to the payment of development mitigation fees.

6. Installation of Giant Garter Snake Deterrent along Lone Tree Road

The design will include a feature that prevents GGS from accessing Lone Tree Read or the MAP site itself. The design may include physical and/or vegetative barriers to prevent snakes from entering the roadway where snakes experience an increased risk of mortality, and should also include features to prevent snakes from becoming trapped on the MAP (western) side of the feature. The design plans will also include measures to avoid and minimize take of GGS during installation and a maintenance plan to ensure that the barrier continues to function over the life of the MAP HCP. A monitoring plan will also be developed to determine the effectiveness of the design in preventing snakes from accessing the roadway and the MAP site. Monitoring may include mark-recapture studies, radio telemetry studies, or other study methods that will allow MAP POA to determine the effectiveness of the design in protecting giant garter snakes. The design, maintenance, and monitoring plans will be submitted for USFWS review and approval prior to construction of Lone Tree Road.

D. Biological Goals and Objectives

A goal of the NBHCP was to establish a multi-species conservation program to mitigate the incidental take of covered species and expected loss to habitat values that will result from urban development. The MAP HCP shares this primary goal and is designed to contribute to the creation of a system of wetland reserves, with associated uplands, that will support populations of the giant garter snake, Swainson's hawk and other covered species. The conservation of wetland habitat values focuses on the state and federally listed giant garter snake while the conservation of upland habitat values focuses on the state listed Swainson's hawk. Implementation of these strategies will also provide for the habitat requirements of the other species covered by the MAP HCP. MAP POA's HCP will contribute land, and land acquisition and management funds to the NBC to assemble the reserve system.

The following are the biological objectives for the giant garter snake under the MAP HCP:

(1) Maintenance of a long-term viable population of giant garter snakes in the Natomas Basin.

(2) Mitigation for impacts of urbanization on the giant garter snake and other covered species through development of a biologically sound network of habitat reserves that contribute to the recovery of these species.

(3) Reserves described in (2) above will consist of habitat blocks a minimum of 400 acres in size, consisting of both wetland and upland habitat, with an interlinking network of water supply channels or canals.

(4) Improvement of giant garter snake habitat values in reserve areas in the Basin through habitat creation, protection and enhancement; reduction in mortality sources.

The following are the biological objectives for the Swainson's hawk under the MAP HCP:

(1) Retention and creation of sufficient quality nesting and foraging habitat to maintain existing Swainson's hawk population levels in the plan area, and allow for population increases to meet any future recovery goals (as defined by the forthcoming CDFG's Swainson's Hawk Recovery Plan).

(2) Acquisition or protection of sufficient foraging habitat to support breeding and successful fledging of young by hawks nesting within the Natomas Basin.

(3) Prevention and/or mitigation of disturbance to and loss of Swainson's hawk nest trees throughout the plan area.

(4) Acquisition of habitat lands for Swainson's hawks within the Natomas Basin only (i.e., no out-of-Basin acquisitions for the Swainson's hawk is permitted under the Plan).

(5) Establishment of a tree planting program to provide for future Swainson's hawk nest trees within the regionally designated Swainson's hawk zone (area within 1 mile of the Sacramento River) or to establish new nest sites in the eastern portions of Natomas Basin (including, but not limited to, areas along the levees and Natomas East Main Drain). However, no trees will be planted within water conveyance or flood control ditches or canals where such plantings would interfere with the function of these facilities.

II. BIOLOGICAL DATA AND SPECIES OF SPECIAL CONCERN

A. Environmental Setting

Agriculture is the dominant land use in the Natomas Basin and on the MAP project site. The predominant crops in the Natomas Basin are rice, corn, sugar beets, grain, tomatoes and pasture lands. The overall topography remains -- the Basin is still a shallow bowl -- but the irregular small-scale topographic features have largely been eliminated by agriculture. The drainage pattern of the Basin has been altered so that runoff is pumped into the surrounding canals and the Sacramento River at several places. Even with pumping, significant portions of the area are subject to shallow flooding from rain falling in the Basin that cannot be conveyed quickly enough to external drainage systems.

Natural and uncultivated vegetation types are interspersed throughout the agricultural areas of the Natomas Basin. See Figure 5, Current Native Habitats. Natural areas are found primarily along irrigation canals, drainage ditches, pasture and uncultivated fields. The borders of drainage canals are often associated with narrow strips of emergent vegetation (cattails and bulrushes) and/or wooded riparian areas. The presence of water conveyance systems among the mosaic of agricultural fields and riparian areas, provide important nesting, feeding and migration corridor habitat for a variety of wildlife species inhabiting the Plan area.