

## **1. Consistency with Recommendations in Draft Recovery Plan for the Giant Garter Snake, 1999**

The USFWS published a Draft Recovery Plan for the Giant Garter Snake ( GGS DRP) in July 1999. The Natomas Basin population of the giant garter snake is contained within the American Basin population in the Mid-Valley Recovery Unit as described in the Draft Plan. The GGS DRP promotes the development of habitat conservation plans to minimize and mitigate impacts to the giant garter snake and states that HCPs should be consistent with recommendations in the GGS DRP (page 71).

Generally the strategies in the GGS DRP are consistent with the conservation strategies of the MAP HCP and the NBHCP. Specifically, the GGS DRP recommends the NBHCP be refined based on ongoing research. Currently, the GGS DRP recommends the percent of managed marsh remain at a minimum of 25% until research shows marsh supports a greater or equal number of giant garter snakes as rice. The percentage of marsh should increase if research shows marsh to support more giant garter snakes.

The GGS DRP addressed the need to maintain and create corridors between existing populations to enhance population interchange. The NBHCP includes a reserve acquisition criteria that states: "blocks of reserve lands must also be hydrologically connected to other blocks through irrigation and drainage systems or other systems to ensure connectivity and opportunity for travel by garter snakes between sections of the reserve system" (page IV-9).

Statements made on page 44 of the GGS DRP confirms the NBHCP's premise that the establishment and management of wetland habitat suitable for the giant garter snake will also provide benefits to other wetland associated species including the tricolored blackbird, white-faced ibis, western pond turtle, and waterfowl in the Central Valley.

Page 51 of the GGS DRP includes a recommendation that reserves acquired under the Natomas Basin HCP be within the Southern American Basin (within the same population and watershed basin) rather than in out-of-basin areas (Area C). Consistent with that recommendation, the MAP HCP does not allow for any out of basin acquisitions in Area C.

### **III. PLAN IMPLEMENTATION**

#### **A. Plan Participants**

##### **1. Permitters**

###### **a. U.S. Fish and Wildlife Service**

The USFWS has the authority for issuing Section 10(a)(1)(B) incidental take permits under the ESA and will be responsible for monitoring and enforcing the provisions of the MAP HCP permits, assuring MAP POA's compliance with the HCP, reviewing annual status reports and responding to requests for amendments. The USFWS will also maintain and provide to MAP POA current covered survey protocols and agency approved take minimization measures where applicable.

**b. California Department of Fish and Game**

The CDFG has the authority for approving Section 2081 incidental take permits under CESA and will be responsible for monitoring and enforcing the provisions of the MAP HCP permits, assuring MAP POA's compliance with the HCP, reviewing annual status reports and responding to requests for amendments.

The CDFG will maintain and provide to MAPPOA upon request a list of biological consultants that are qualified to carry out pre-construction surveys and implement take minimization measures for specific state-listed species found in the Natomas Basin.

**2. Permittees****a. Metro Air Park Property Owners Association**

Under the MAP HCP, MAP POA, a California non-profit mutual benefit corporation, representing 1892+/- acres of land with 138 individual landowners in 22 ownership groups, is the permittee. MAP POA's permit obligations and take authorization are enforceable by MAP POA upon all landowners who develop their properties through Covenants, Conditions and Restrictions (CC&Rs) binding those landowners to comply with the terms of the MAP HCP. All new development in the MAP HCP area by MAP POA landowners is required to minimize and mitigate impacts on covered species and their habitats in compliance with the MAP HCP and state and federal law.

Individual landowners will be covered by the state and federal permits through the issuance by MAP POA of a Certificate of Inclusion to each landowner who has signed the CC&Rs and when specific mitigation requirements, including fee payment and take minimization measures, have been met. Landowners who may in the future elect to grow rice on their lands, will be covered by the permits through a Certificate of Inclusion issued by MAP POA upon entering into a binding agreement with MAP POA to incorporate farming practices that benefit wetland habitat values by following BMP's.

Only approximately 40 acres of land within the MAPSPA are owned and managed by non-MAP POA members at this time. Individual(s) or entities not members of MAP POA are not covered by this HCP, and the 40 acres is not counted as part of the 1892 acre MAP SPA area. When those entities not currently members of MAP POA propose to develop their lands and desire coverage by the ITP's, they can do so any time after becoming a member of MAP POA, signing the CC&R's and complying with this HCP and associated IA and permit. Non-landowning rice farmers (i.e., lessees, share croppers, etc.) who have not previously signed the CC&Rs, will also be required to sign these binding agreements and follow Best Management Practices (BMPs), to obtain take authorization under MAP POA's permits. Non-signing landowners represent precisely 40.43 acres and are identified in Exhibit "A" to the Implementation Agreement. Appendix C contains the BMP's for rice field management to enhance wetland values.

MAP POA will assure compliance with the Section 10(a)(1)(B) and 2081 permits through

the mechanisms described in Section 3.1 of the MAP IA.

### **3. Compliance Monitor and Biological Consultant**

Prior to any surface disturbance of land, MAP POA shall retain and fund an HCP Compliance Monitor who shall act as a liaison to USFWS, CDFG, and the NBC for communications concerning the MAP HCP and IA. The Compliance Monitor, to be approved by the USFWS and CDFG, shall be responsible for monitoring implementation of and compliance of the IA, ITP, and HCP, including all take minimization measures identified in Section III. C. 2 of the HCP. The Compliance Monitor shall have the authority and the responsibility to provide notification to the County of any violation of, or noncompliance with, the HCP, IA, or ITP. Refer to Section 3.1.11 of the IA for more details.

MAP POA shall also retain a biological consultant, approved by USFWS and CDFG, to implement certain components of the MAP HCP, including but not limited to the conducting and reporting of preconstruction surveys, and compliance with conservation strategies and take minimization and reduction measures specified in the MAP HCP or, alternatively, MAP POA may enter into an agreement in the future with the County of Sacramento to perform such tasks. Refer to Section 3.1.12 of the IA for more details.

### **4. Plan Operator**

#### **a. The Natomas Basin Conservancy**

The NBC will serve as the Plan Operator for the MAP HCP. In this role, the NBC will receive MAP mitigation fees from the County and will be responsible for the selection, acquisition, enhancement, monitoring and management of reserve lands. The NBC is also responsible for the preparation and timely submission of management plans for reserve lands, including the Swainson's Hawk Reserve. Refer to Section 3.4 of the IA for more details of NBC's obligation under the MAP HCP. A discussion of the functions the NBC will perform under the Regional Plan, including acquisition and management of reserve lands, are contained in Appendix A. NBC's adopted Resolution and Agreement with MAP POA outlining these functions are included in Exhibit H to the IA.

### **5. County of Sacramento**

MAP POA has entered into an agreement with the County of Sacramento to promote compliance by MAP POA landowners with the HCP, IA and ITP. In accordance with the County's agreement with MAP POA (contained as Exhibit H to the IA), the County shall: 1) receive HCP mitigation fees and as soon as reasonably possible after receipt, disburse the fees to the NBC; 2) as part of its normal regulatory processes, issue urban development permits (principally grading permits) to MAP POA landowners, and 3) will cease to issue, and/or suspend any issued urban development permits to a particular landowner upon notification that landowner is not in compliance with HCP requirements. Refer to Exhibit H of the IA for more details. Because the County Agreement was executed prior to completion of the MAP HCP and the IA, it does not fully track the provisions of the final version of these documents. As a result, MAP POA shall enter into a new agreement with the County within 120 days of the date the ITPs are issued. The new agreement shall be acceptable to the USFWS and CDFG and shall

conform to the provisions of the final HCP and IA.

## **B. Plan Funding**

Habitat Conservation fees will be collected at the time the grading permits are issued. These fees will be financed through a combination of Mello-Roos Community Facilities District bond proceeds, development fee program proceeds, direct payments from developers and Property Owners Association Assessments. MAP POA and its members are liable for all additional monetary obligations that may be required to fully implement the land acquisition, ongoing or permanent management, monitoring, adaptive management, recovery plan and Changed Circumstances requirements of the MAP HCP and NB HCP.

### **1. Mello-Roos Bonds**

MAP POA in conjunction with the County of Sacramento (County) has formed a Community Facilities District (CFD) that has defined major infrastructure needed for the full build out of MAP. Based on the phased build out of MAP and the estimated cost of all public facilities improvements, a financing plan has been prepared (MAP Public Facilities Master Plan, August 2000). This financing plan provides for the funding of such facilities through development fees paid or from Mello-Roos Bond proceeds when grading permits are issued. The County of Sacramento Board of Supervisors voted September 26, 2000 to approve a resolution to establish Metro Air Park CFD and to provide for the levy of special taxes and to approve a resolution declaring the necessity to incur a bonded indebtedness. The property owners within the CFD have authorized through an election the issuance of a certain principal amount of special tax bonds (Bonds) under the Mello-Roos Community Facilities Act of 1982. Pursuant to the election, the County may authorize the levy and collection of a special tax from the CFD properties for the purpose of paying interest on and principal of and redemption premiums on the Bonds. The County may issue the tax-exempt bonds to finance a portion of the infrastructure improvements and mitigation costs associate with the MAP project. The subject bonds will be secured by a special tax levied against property within the project. The special tax is secured by a lien in favor of the County of Sacramento. Failure to pay the special tax lien could result in foreclosure by the County to collect lien proceeds. In any event, the proceeds from the sale of the tax-exempt bonds will be available for payment of the relevant portion of the HCP fees, irrespective of whether special taxes are paid or not paid.

The Mello-Roos bonds for the tier one on-site and off-site sewer infrastructure will provide funding for the backbone infrastructure for the MAP site (i.e., roads, utilities, etc.) and for the payment of HCP mitigation fees for impacts to Covered species habitat resulting from tier one, sewer infrastructure and Swainson's hawk nest tree removal. Mitigation fees will be paid for a total of 191 acres of development, including 150 acres of initial on-site development and 41 acres of off-site sewer improvements, and the 200 contiguous acres of suitable Swainson's hawk nest tree and foraging habitat required to be transferred to NBC. Payment of the mitigation fees and transfer of the Swainson's hawk nest tree reserve lands, will be made by MAP POA prior to the commencement of development activities at any development site within MAP covered lands and reimbursed from the bond proceeds after the bonds are funded. At the time of payment, mitigation fees will be paid to the County and turned over to the Natomas Basin Conservancy (NBC). After the initial payment of fees for tier one development and sewer improvements and transfer of the Swainson's hawk nest tree reserve, HCP mitigation funds will be paid to the NBC

prior to habitat disturbance activities such as grading or grubbing for development purposes.

The approved version of the Master Plan shows that the costs included in the initial Mello-Roos bonds for public improvements totals \$67.66 Million. An initial payment of approximately \$750,000 will be paid for the impacts of disturbance caused by installation of the 150 acres of on-site initial infrastructure improvements and 41 acres of off-site sewer improvements which, under the 0.5:1 mitigation ratio, will provide for the acquisition of 95 acres of habitat reserve. The Mello Roos bonds will also pay for the 200-acre Swainson's Hawk nest tree reserve (see Table 5 for breakdown of the fee for Swainson's hawk nest tree mitigation. The NBC has estimated the cost of nest tree mitigation lands to be \$1,900,000 if the NBC purchases the mitigation lands and if no revenue from rice lands or hunting is assumed. All fees generated from the Mello Roos or similar bonding mechanism must be collected prior to disturbance of the 191 acres. Payment for subsequent tier two off-site drainage and roadway improvements will be funded by subsequent Mello Roos bond proceeds that have been preauthorized. Mitigation funds covering those offsite improvements will be paid to the NBC prior to habitat disturbance activities on the off-site lands such as grading or grubbing.

## 2. 0.5:1 Mitigation Fee

Under the MAP HCP, individual landowners/developers will pay a one-time mitigation fee on the gross acreage of the parcel(s) which will be converted to urban development. The mitigation fee will be the same as that approved currently and in the future by the City of Sacramento under the Regional Plan. City fees were increased to \$5,993 on June 12, 2001 by Sacramento City Council Resolution 2001-391. The mitigation fee is broken down into five components which are listed in Table 4.

The initial Regional Plan mitigation fee was arrived at following a detailed analysis of the fees necessary to adequately fund all the functions of the NB HCP. The economic analysis was prepared by Economic and Planning Systems (EPS) in conjunction with the Sacramento Area Flood Control Agency (SAFCA). The full analysis, including all of the assumptions and supporting basis, is presented in EPS, 1995 (see Appendix B of NBHCP). The EPS/SAFCA estimate of the fee per acre in 1995 dollars necessary to support the functions of the NBHCP was \$2,240 per developed acre of land. On September 2, 1997, by Resolution No. 97-508, the Sacramento City Council increased the NBHCP mitigation fee, in part, to reflect less reliance on hunting revenues to support NBHCP funding needs. The fee was increased again by the Sacramento City Council in August 1999, September 2000, and June 2001. The 2001 fee increase breakdown is shown below in Table 4.

**TABLE 4  
MITIGATION FEE COMPONENTS PER ACRE DEVELOPED \***

Land Acquisition	\$3,000.00
Restoration/Enhancement/Monitoring	\$ 368.00
Administration O & M	\$1,555.00
<u>O % M Endowment Fund</u>	<u>\$ 950.00</u>
Subtotal Mitigation Fee	\$5,873.00
Fee Collection Administration (2% of fee)	\$ 120.00
Total Fee Per Gross Developed Acre (2001\$)	\$5,993.00

\*For funds available to support management of each acre of mitigation land, multiply these figures by two.

The "MAP Baseline Map" is contained in Exhibit "A" to the Implementation Agreement and is submitted to the USFWS and CDFG with the MAP HCP as Figure 7. This map and Figure 4 (Off-Site Improvements) show the covered lands that are subject to the mitigation fee.

The Metro Air Park project could pay mitigation fees on as many as 1,892 acres of the project site (the entire site) and 123 acres of off-site infrastructure which are proposed for development. Using the \$5,993 per acre fee established in the NBHCP, and multiplying it times 2011 acres, the project could ultimately generate as much as \$12,000,000 in mitigation fees.

Payment of mitigation fees will be phased over the 30-50 year build-out period. After the initial infrastructure improvements are completed, individual landowners will pay mitigation fees on those phases of the project that they develop. To encourage the retention of habitat values on existing agricultural lands until development occurs, 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. Mitigation fees will also be collected for any lands temporarily disturbed by Tier One Urban Development which are not returned to agricultural production within twelve consecutive months following completion of the particular Tier One Urban Development project, including the off-site sewer line extension. In each case the lands will be considered to be converted to Urban Development.

Landowner fee payments must be paid to the County before the landowner/developer receives the final grading permit for the phase of the project they are developing. In addition, landowners must provide written documentation to the County that they have carried out pre-construction surveys and implemented Resource Agency approved take minimization measures on the development site prior to obtaining final grading permits. Copies of the fee payment and take minimization certificates will be submitted to the NBC, USFWS and CDFG.

Optionally, with written approval from the MAP POA, NBC, USFWS, and CDFG individual landowners may donate land to the NBC in lieu of payment of some or all of the acquisition component of the mitigation fee. The landowner will be required to pay the most current administrative, endowment, and habitat management components of the mitigation fee on donated land. In such cases, the NBC, USFWS, and CDFG will determine which lands are acceptable, considering location, proximity to urban uses and roads, and current condition. Open space left within developed areas will require mitigation. Areas determined to be suitable for mitigation must be transferred to the NBC or another suitable entity approved by the USFWS and CDFG or be encumbered by a conservation easement approved by the USFWS and CDFG.

Refer to Section 4.5 of the MAP IA for more details on the mitigation fees.

### **a. Fee Adjustments**

The MAP "base fee" will be subject to the same adjustments that apply to the Regional Plan with the exception that the NBC will adjust the base mitigation fee as necessary, on its own or at the request of FWS or CDFG. Adjustments to the base fee will be made to account for inflation or deflation using the Consumer Price Index (CPI) or another suitable index and to maintain the .5 to 1 mitigation ratio. The base fee will also be adjusted to respond to changes in land acquisition, monitoring and reserve management costs and adaptive management, recovery plan or Changed Circumstances modifications to the plan. Adjustments to the base mitigation fee to account for inflation or deflation, or as necessary to maintain the 0.5-to-1 mitigation ratio and to meet ongoing management and monitoring costs shall be considered minor amendments to the NBHCP. Base fee adjustments will also be considered a minor amendment to the MAP HCP.

Because the base fee consists of individual components (e.g. land acquisition, restoration/enhancement/monitoring, and the operations and maintenance endowment), the base fee may be raised with respect to specific fee components periodically found to be deficient over the term of the permits. In other words, all components of the mitigation fee as described in Table 4 are subject to base fee increases as necessary to ensure that the requirements of each individual component of the MAP HCP are met.

In addition to specific adjustments of the MAP HCP mitigation fees, the MAP HCP fees shall be adjusted automatically to insure the fees are at least equal in amount to the base mitigation fees applicable to the NBHCP, as the latter may be adjusted from time to time.

### **3. Swainson's Hawk Nest Tree Mitigation Fee**

Prior to commencing any infrastructure or other development within the permit area, MAP POA shall transfer to NBC lands determined by the NBC, USFWS, and CDFG to provide suitable Swainson's hawk nest tree and foraging habitat or provide funds in an amount determined by NBC to be adequate to purchase 200 acres of Swainson's hawk nest tree mitigation lands. In addition, MAP POA shall transfer funds to the NBC adequate, as determined by the NBC, to fund the habitat management, endowment, and administrative fee components identified in Table 5 below which shows the current estimate of the mitigation fee components of the Swainson's hawk nest tree mitigation requirement.

If MAP POA elects to transfer the acquisition fees to the NBC in lieu of land, the NBC shall acquire the 200-acre reserve within 12 months of the transfer of such fees.

### **4. Property Owner Assessments**

MAP POA is a non-profit mutual benefit corporation that is acting as the permittee under the Section 10(a)(1)(B) Permit on behalf of those landowners and developers in the Metro Air Park Special Planning Area of the Natomas Basin who are signatories to the MAP POA CC&R's. A primary duty of MAP POA as permittee will include enforcement of the terms of the HCP and IA on its member landowners and all agents and contractors acting on its behalf. Therefore, MAP POA and its members are liable for all additional monetary obligations that may be required to fully implement the land acquisition, on-going or permanent management,

monitoring, adaptive management, recovery plan, Changed Circumstances and any other requirements of the MAP HCP and IA. In order to finance the costs associated with MAP POA's duties, MAP POA has the legal authority, established pursuant to recorded CC&R's to levy assessments against each property owner. If an assessment is not paid, MAP POA has the authority to impose a lien on the property to enforce fee collection. If the lien is not timely satisfied, MAP POA has the authority to foreclose on the property, sell the property at public auction, and use the proceeds of such sale to satisfy the costs incurred by MAP POA in the performance of its duties. If for any reason, amounts are owed to defray costs incurred under the terms of the ITP which have not been covered by the above-described bond proceeds or permit mitigation fees, MAP POA will assess its property owners for these costs and pay over such assessments to the NBC. If, for any reason, a landowner fails or refuses to pay its assessment, MAP POA is authorized to impose a lien and, if necessary, proceed to foreclosure on that property to collect the assessments from the proceeds of the foreclosure sale. Alternatively, MAP POA may choose to raise the assessment on all other property owners, collect these assessments and pay them over to the NBC, and reimburse itself from the proceeds of the foreclosure sale.

## **5. Funding for Compliance Monitor**

MAP POA shall fund the costs of the MAP HCP compliance monitor described in Section III. A. 5 above and the cost of implementing the take minimization and other HCP measures described in Section III. C. below whether implemented by MAP POA, the biological consultant or the County through the construction management cost provision of the Mello-Roos bonds identified in Section III. B. 1. MAP POA shall secure any additional funding required for these purposes through periodic assessments on MAP POA member landowners pursuant to the CC&Rs attached as Exhibit G to the IA.

## **6. Plan Costs**

As explained above, the Regional Plan mitigation fee was developed from a detailed analysis of the amount of the fee assessment necessary to adequately fund all the functions of the NB HCP. The financial model used by the NBC for that detailed analysis is maintained by EPS. EPS periodically revises the NBC's analysis to reflect current experience in land acquisition, restoration, and enhancement, operation and maintenance, and administration costs and revenues. In May 2001, EPS put together a memorandum for the NBC detailing on the status of the fee that supports the implementation of the NBHCP (Appendix D). New information obtained by the NBC caused a change in the assumptions behind each of the fund categories mentioned above. As a result of that analysis, the mitigation fees were raised to their current level of \$5,993.

The recent NBHCP base mitigation fee increase was based on an updated cash flow analysis prepared by EPS. The base fee cash flow analysis incorporates updates such that the cash flow modeling more accurately reflects the experience and projected operations of the NBC. These updates include:

*Rice Revenue Projections:* Rice revenues were modeled to more precisely match current estimates of projected revenues over the next two years.

*Revised Administrative Cost Estimates:* Administrative costs were revised based on the

current budget estimates of the NBHCP.

*Fund Balance Adjustments:* The cash flow analysis was adjusted such that beginning balances in 2001 match actual fund balances of the NBHCP as of December 31, 2000.

*Transfer from O&M/Administration to Restoration & Enhancement:* The HCP fee program since conception was structured to allow transfers of funds between the Land Acquisition, Restoration & Enhancement, and Administration/O&M funds based on any surpluses or deficits that might exist in those funds. Currently, the O&M/Administration fund has operating surpluses due to operating and administrative efficiencies of the NBC while the revenues for Restoration & Enhancement need to be supplemented over the next few years due to higher than anticipated restoration and enhancement costs for marsh lands. Not only is the cost to restore and enhance managed marsh significantly higher than the original plan estimated, it is also anticipated that managed marsh restoration and enhancement obligations will be far more intense and concentrated than provided in the original plan due to a more condensed period of development activity. Therefore, a transfer from the O&M/ Administration fund to the Restoration & Enhancement fund was assumed in 2003 and 2004 in the cash flow model.

*Hunting Lease Revenues:* The NBC has recently entered into a contract for the management of hunting operations on NBC lands. Based on projected revenues to the NBC from the providers of these services, projected hunting revenues were revised to reflect a more realistic projection of the likely net operating income. The current cash flow analysis assumes \$12 per hunting acre whereas the July 2000 update assumed hunting revenues of approximately \$37 per hunting acre.

*Administrative Costs Post-Land Acquisition:* Previous versions of the financial analysis have assumed that administration costs would be reduced by 67 percent after all mitigation lands have been acquired. Based on discussions with the NBC and information provided by NBC's Executive Director John Roberts, we have come to the conclusion that it is unrealistic to assume a significant decrease in administrative costs once all land acquisition has been completed. Therefore we have assumed a 15 percent reduction in administration costs. The reduction allows for a decrease in legal expenses but leaves intact funding for most other administrative expenses. This revision to administration costs over the long term represents approximately a 20 percent increase in the O&M/Administration expenditures on an annual basis. However, the O&M/Administration fee is a relatively small component, approximately 16 percent. of the overall fee program, including the Settlement Agreement Premium for land acquisition.

*Acceleration of Fees Paid (Grading Permits Pulled):* Past cash flow model analyses have assumed a 50-year development absorption schedule for the 17,500 acres of planned development in the Natomas Basin. Historical development over the last three years has been substantially greater than anticipated by the original cash flow analysis. Given recent market trends, it is likely that development activity will continue to be at higher levels than originally projected. Even if the market slows, and as a result development activity also slows, there is a very high probability that developers will pull grading permits even if they do not plan to develop the property in the immediate future in order to avoid future delays in the permitting process due to the legal challenges to the NBHCP fee. Therefore, the current cash flow analysis assumes a 15-year development period, during which grading permits are projected to be pulled and the NBHCP fees paid. Actual development may substantially lag the grading permit stage.

Refer to Appendix D for more details including assumption tables.

The NBC used the cash flow analysis to determine the mitigation fee payment for the Swainson’s hawk 200-acre nest tree mitigation lands. The model used the same four major funding assumptions mentioned above. The assumptions used in the analysis were: (1) mitigation must take place within the Basin; (2) the rules governing mitigation land available for acquisition are consistent with those in the current HCP; (3) no rice production could take place; (4) light grazing would be allowed; and (5) the land would be restored to native grasslands. The NBC estimated the cost of nest tree mitigation lands to be \$1,900,000 if the NBC purchased the mitigation lands and if no revenue from rice lands or hunting is assumed. The fee increase breakdown is shown below in Table 5.

**TABLE 5  
MITIGATION FEE COMPONENTS PER ACRE DEVELOPED FOR SWAINSON’S  
HAWK NEST TREE MITIGATION**

Land Acquisition	\$5,000
Restoration/Enhancement/Monitoring	\$ 996
Administration O & M	\$2,550
<u>O % M Endowment Fund</u>	<u>\$ 800</u>
Subtotal Mitigation Fee	\$9,346
Fee Collection Administration (2% of fee)	\$ 188
Total Estimated Fee Per Gross Developed Acre (2000\$)	 \$9,534

The Endowment Fund fee is raised to \$800.00 per acre (compared to the normal \$190.00) on the 200 acres of MAP POA supplemental Swainson’s hawk mitigation land. Because the Plan does not assume farming revenue for this mitigation land, there is a shortfall in funding in the Administration Fund at the end of the 50-year permitting phase of the Plan. Therefore, the Endowment Fund must be drawn upon to make up for any shortfall in revenue. In order to assure sufficient interest earnings in year 50, the Plan requires an initial principal balance of \$160,000.00 (or \$800.00 per acre over 200 acres). In essence, the additional money assures that in the later years of the Plan’s implementation, there are enough funds to sustain the operations and maintenance of acquired mitigation lands.

**7. Provisions to Assure Plan is Adequately Funded**

The MAP HCP and Implementation Agreement (IA) incorporate several mechanisms to ensure the plan is fully funded. Section 4.5.7(1) of the IA provides that the NBC shall either on its own or at the request of either USFWS or CDFG, adjust the Base Mitigation fee to take into account the increased costs of land acquisition and NBC operations, including ongoing management and monitoring costs, or as necessary to ensure that the mitigation ratio of .5 acres of mitigation land to 1 acre of development is met. Section 4.5.7(2) of the IA requires the automatic adjustment of Base Mitigation Fees whenever the Base Mitigation Fees under the NBHCP are adjusted to ensure the MAP fee is at least equal to the current fees assessed under the NBHCP. Section 4.5.7(3) provides a process by which increases in land values during and

after development provide many-fold the necessary security interest to offset any reasonably foreseeable increases in fees necessary to meet increases in costs "to fully implement the land acquisition, on going or permanent management, monitoring, adaptive management, recovery plan and Changed Circumstances requirements for the NBHCP and the MAP HCP."

Further assurances include the fact that the value of developed land that MAP POA would assess, lien, and if necessary, foreclose upon and sell, will be such that no landowner would dare risk loss of its investment simply to avoid costs of additional mitigation and/or management, even if it means establishing and maintaining preserves which are seventy-five percent (75%) marsh. In addition to that, in almost all instances, properties will be subject to bank mortgages which will be junior to MAP POA's liens. Banks typically will not allow its mortgages to be "wiped out" by foreclosures. Banks in this situation will typically step forward and "cure" the situation by paying any additional assessments in order to protect its loan/mortgage interest .

Section 4.5.8 requires NBC to adjust the fees annually to take into account the effects of inflation/deflation. The NBC is also required to adjust the Base Mitigation Fee in response to recommendations made in future GGS or Swainson's hawk recovery plans and pursuant to the adaptive management provisions of the plan. The MAP IA further provides that the final 10 percent of covered lands under the MAP HCP may not be developed until mitigation lands representing mitigation for those lands have been acquired by NBC. (IA at Section 5.5.2.) Thus all mitigation lands must be acquired before full buildout under the MAP HCP occurs.

An additional Swainson's Hawk Nest Tree Mitigation Fee is imposed under the MAP HCP and IA to fund the purchase of 200 acres of suitable habitat to mitigate for the impacts of removing a Swainson's hawk nest tree and surrounding foraging habitat in MAP SPA. Under Section 4.5.9 of the IA, MAP POA must transfer such Swainson's hawk mitigation fees to NBC prior to commencing any urban development on the covered lands. Mitigation fees covering initial infrastructure development that will precede any development of individual property within MAP SPA must also be paid to NBC before development begins (IA at 4.34).

Finally, the MAP POA, through "Covenants, Conditions and Restrictions" (CC&Rs) applicable to its member landowners is required to impose "Additional Monetary Obligations" beyond the mitigation fees if NBC's periodic adjustments to the mitigation fees prove insufficient to fully implement the land acquisition, on-going or permanent management, monitoring, adaptive management, recovery plan or Changed Circumstances provisions of the MAP HCP. (IA at Section 4.5.7(3)). By delaying ultimate build out of the covered lands until all mitigation lands have been acquired, by providing for periodic adjustment of the mitigation fees to meet increased acquisition, management and other plan costs, and by MAP POA's commitment to assess its member owners such additional fees as may be necessary to fully implement the plan, the MAP HCP and IA do ensure funding adequate to carry out the plan.

The funding mechanisms in the MAP HCP are not "voluntary." Pursuant to the MAP HCP and IA, MAP POA is required to assess mitigation fees on all member landowners for initial infrastructure improvements and for the Swainson's Hawk Nest Tree Mitigation Reserve, as necessary above and beyond the initial infrastructure Mello-Roos bond financing, prior to any development under the ITPs. (IA at section 4.5.9) . Thereafter, MAP POA is required to assess mitigation fees on each individual landowner at the time an urban development permit is

obtained for a particular parcel. Payment of such fees is required as a condition of receiving a grading permit from the County of Sacramento. IA at Section 3.1.14. As noted above, adjustments to the Base Mitigation Fees to take into account increased acquisition, management and other plan costs are not "voluntary." The NBC is required on its own or at the request of the Service or CDFG - to adjust mitigation fees as necessary to meet its expenses in acquiring and managing mitigation lands. (MAP HCP mitigation fees also must be adjusted as necessary to keep pace with any adjustments made to NBHCP mitigation fees.) Adjustments to any component of the fees can be made at any time by NBC to fully account for increased plan costs.

As a final backup mechanism to provide for unexpected plan implementation cost increases, MAP POA, through CC&Rs, maintains the continuing ability to assess its member landowners additional fees necessary to fully implement the plan. (Under Section 4.5.7(3) of the IA, MAPPOA is required to impose such additional fees on its members as necessary to fully implement the MAP HCP and under CC&R Sections 6.1 and 8.1.2, each member landowner is obligated to pay all ITP related fees.) Sections 7.9 and 8.1.2(c) of the CC&Rs vest MAP POA with the legal authority to impose a lien upon an owner's parcel and foreclose on the lands of any member who refuses to pay an assessment or otherwise fails to comply with the terms and conditions of the MAP HCP and ITP. The CC&Rs are binding on all MAP POA landowners and their successors in interest as provided in Article 10 of the CC&Rs and, pursuant to Section 8.1.2(e) of the CC&Rs, none of the provisions relating to the ITPs and HCP may be modified, amended, revoked or terminated without the prior written consent of the Service and CDFG.

Failure by MAP POA to comply with its obligation to assess fees under the MAP HCP and IA could trigger suspension or revocation of the ITPs, subject MAP POA to civil and criminal penalties under the ESA for failure to comply with the conditions of its permit, and subject MAP POA to legal action under Section 7.2 of the IA for breach of contract, including specific performance and injunctive relief. While the Service considers the prospect of additional fee assessments to be remote given the other funding safeguards built into the plan, there is no reason to doubt the commitment and authority of MAP POA, as expressed in the IA and through the mutually binding CC&Rs on all members, to assess and collect such fees. As outlined above, there are several remedies available to the Service to redress a failure by MAP POA to assess fees.

The commitment to fund mitigation made by MAP POA applies solely to mitigation arising from MAP HCP covered activities. MAP POA has no responsibility to "cover" increased costs attributable to the mitigation obligations of other NBHCP permittees. The NBC will be required to separately account for all mitigation lands acquired under the MAP HCP, and MAP POA generally will be required to bear a proportionate cost of the management and monitoring of mitigation lands based on the ratio of the number of mitigation acres acquired with MAP POA mitigation fees to the total number of mitigation acres. All fee increases attributable to the 200 acre Swainson's hawk nest tree mitigation reserve will be the sole responsibility of MAP POA. While the Service expects that a revised NBHCP will also include additional funding mechanisms to assure funding full plan implementation tailored to the particular circumstances of the permittees under that plan, the MAP HCP and ITP are independent of any future NBHCP. It will not be the responsibility of MAP POA to make up any funding shortfall that might arise from another incidental take permit.

Accounting systems are already provided for and described in detail in the MAP HCP and

IA to track both mitigation fee payments and mitigation land acreage acquisitions by MAP, in a manner totally separate from the City.

MAP IA Sections 3.1.9 and 5.1--5.7 describe detailed measures to ensure that MAP HCP habitat management and protection will adequately be taken into account. Sections 3.1.9 and 5.2, specifically state that MAP will provide NBC with both "monthly accounts of the numbers of acres under development and the amount of mitigation fees paid to County" as well as "an annual accounting of the number of acres under urban development, mitigation fees paid, and the number of rice farming acres."

Section 3.1.9 adds that "MAP POA has to maintain, and provide to MAP POA, NBC, USFWS and CDFG an annual report, calculated from the Effective Date, including any portion of a year during which the Permit is in effect, detailing the cumulative amount and location of lands within the Permit Area as to which Urban Development Permits have been issued. The report shall also specify the mitigation that was applied to such lands. NBC shall incorporate this annual report into the annual report it must submit under Section 3.4.4 of this Agreement and Chapter IV, Section G.4 of the NBHCP. USFWS and CDFG shall use this annual report, together with annual report provided by NBC, for the purpose of monitoring whether the appropriate level of HMR land is being conserved based upon the number of acres of land which has been converted to Urban Development by Urban Development Permittees."

The MAP POA-County Implementation Agreement, paragraph 3, confirms this arrangement (Exhibit H to the MAP IA).

MAP IA Section 5.5.1 specifies that "[a]cquisitions of Conservancy Lands shall be in accordance with the NBHCP and NBIA provided that the 400 acre minimum block and 2,500 acre minimum block requirements shall be applied in the aggregate to all approved HCPs in the Natomas Basin that are based upon the NBHCP, that the plans as a whole must achieve the identified habitat block acquisition requirements", and specifies that, "in the event the NBHCP is not in effect, MAP POA retains the independent obligation to acquire a minimum of two 400-acre habitat blocks, as defined in the NBHCP, but is not required independently to meet the 2,500-acre minimum habitat block requirement."

## **C. Take Mitigation and Minimization Measures**

### **1. Mitigation Measures**

The primary mitigation for impacts to covered species resulting from the MAP project is the acquisition of lands for the purpose of creating and managing permanent habitat reserves. For every one acre of land developed in the MAP project area, one-half acre of land will be set aside as a habitat reserve. The 1997 NBHCP established the 0.5 to 1- (0.5:1)-acre mitigation ratio. It represents an overall average for the entire Natomas Basin and reflects the loss of similar amounts of poor quality habitat, such as orchards and sugar beet fields, as well as the loss of higher quality habitat, such as rice fields, wetlands, and riparian habitat. The ratio also reflects the added values that will result from actively managing the 0.5:1 reserve lands for the benefit of the covered species. This ratio amply mitigates for the impacts of take from the Metro Airpark project.

As discussed in Chapter II. A. there are no longer any actively-farmed rice fields on the Metro Airpark lands. The only extant giant garter snake habitat on the project lands consists of approximately 76 acres of canals and ditches, several of which, however, no longer maintain consistent water supplies or giant garter snakes due to the curtailment of rice farming. Significant portions of the non-rice agricultural lands within the project have been left fallow and are filled with dense patches of upland weed species, which provide moderate foraging habitat for most of the upland Covered Species. Given the deteriorated status of project lands as habitat for the Covered Species, particularly the giant garter snake, the 0.5:1 mitigation ratio, combined with the active management of higher-quality habitat reserve lands provided for under the plan, will mitigate for the impacts of take by the project in a biologically-sound manner.

There is a single active Swainson's hawk nest on the site, which will be removed by the project but loss of the nest tree will be mitigated under the plan by the acquisition, enhancement and permanent management of a 200-acre Swainson's hawk nest tree reserve. The reserve will provide nest tree and foraging opportunities for the hawk in a permanently protected area in contrast to the lesser benefits of preserving the single nest tree on-site, uninsulated from the impacts of urban development on all sides

It is anticipated that all landowners who are members of the Metro Air Park Association will participate in the MAP HCP in order to mitigate the direct, indirect, and cumulative effects of development on the covered species and their habitat and to receive the protection of the incidental take permit. Currently landowners representing over 95% of the lands in the project are members of MAP POA. An individual landowner or developer may choose from among several specified mechanisms for implementation of mitigation, although it is anticipated that mitigation will primarily occur through the payment of mitigation fees.

MAP POA will pay mitigation fees to the County. The County will in turn forward payments to the NBC. The NBC, under the supervision of the USFWS and CDFG, will independently implement off-site mitigation measures for the MAP POA.

The Natomas Basin Conservancy will be responsible for using MAP mitigation fees for the acquisition, purchase and management of MAP's habitat mitigation lands. As of May 2001, the NBC has acquired and is managing 1,630 acres of habitat mitigation lands for the City of Sacramento. The NBC has also prepared site-specific management plans for all of the seven properties it has acquired. The plans address management activities that will benefit all of the Covered Species, not just the giant garter snake and Swainson's hawk. Similar management plans, approved by the USFWS and CDFG, will be prepared for MAP mitigation lands.

**a. Giant Garter Snake**

Using MAP funds, the NBC would establish roughly 1,000 acres of habitat reserves. Under the Regional Program, 25% of the reserve land would be maintained as managed marsh and 50% would be maintained in rice production that is grown using Best Management Practices for giant garter snake and other wetland species. Thus, over 750 acres of land would be specifically managed on behalf of the Metro Air Park project to benefit the giant garter snake. The establishment of suitable giant garter snake habitat would offset the impact of the loss of between 28 to 76 acres of canal and ditch habitat on-site that may support giant garter snake.

Under the site-specific management plans prepared for the seven properties that have been acquired by the NBC for the City of Sacramento, the preliminary habitat restoration designs for the 428 acres of giant garter snake are for managed marsh, including a combination of open water, perennial marsh, pothole, and seasonal marsh. Not included in that acreage are grasslands surrounding or interspersed with the aquatic and wetland habitat which will provide basking sites and/or refugia for giant garter snake.

**b. Swainson's Hawk**

Using MAP funds, the NBC would establish roughly 1,000 acres of habitat reserves. Under the Regional Program, 25% of the reserve land would be maintained as upland habitat for use by Swainson's hawk. In accordance with this program, 250 acres of MAP mitigation land would be specifically managed for Swainson's hawk. The NBC would manage the land both as foraging habitat and will install trees that are favored by the Swainson's hawk for nesting (willows, cottonwoods, valley oaks). Because the mitigation land would be managed specifically for Swainson's hawk, it would off-set the impact of the loss of agricultural land on the MAP site which, today, is not specifically managed for Swainson's hawk use, but which occasionally becomes moderate quality foraging habitat as a result of specific farming practices (primarily the rotation of crop land to fallow land).

On the existing NBC mitigation lands, dedicated Swainson's hawk habitat comprises grassland, berms, alfalfa, and riparian woodland and totals 468 acres, or 29 percent of the habitat mitigation lands. Of the 724 acres of rice lands, at least 10 percent will be managed as rotating fallow land on an annual basis to provide foraging habitat for Swainson's hawks. Refer to the NBC's Site Specific Management Plan for more details.

In order to mitigate for the loss of the single Swainson's hawk nest tree on-site, MAP POA will implement the following measures, consistent with the biological goals and objectives of the HCP. The mitigation will be implemented commensurate with the impact and will be funded sufficiently to manage the site.

(1) MAP POA will secure, or provide funds to the NBC to secure 200 contiguous acres of suitable Swainson's hawk habitat via fee title or conservation easement and transfer ownership of the lands over to the NBC to manage in perpetuity for the benefit of Swainson's hawk nesting. MAP POA will also provide sufficient funding to the NBC for management of the nest tree mitigation lands consistent with the following mitigation measures.

The nest tree mitigation lands will be secured consistent with recommendations made by the Swainson's Hawk Technical Advisory Committee (SHTAC) in the 2000 Natomas Basin Swainson's Hawk Nest Survey Report. Acquisition of the lands must be reviewed and approved by USFWS, CDFG, and NBC. The SHTAC recommends establishing new nest territories in the Basin. Lands must be located entirely within the Natomas Basin in the Swainson's hawk "zone" (within one mile of the Sacramento River), or in the eastern portion of the Natomas Basin, including, but not limited to, areas near the levees and Natomas East Main Drain. Acquisition will focus on sites that provide upland foraging habitat, have potential for additional acquisition of adjoining properties, and are surrounded by agricultural lands. A Site Specific Management Plan (SSMP) shall be prepared for the reserve in accordance with NBC's policies regarding the preparation of SSMPs, except that the Swainson's hawk nest tree reserve plan must be completed

within 12 months of the date the lands are transferred to the NBC rather than the standard 18 months for other SSMPs.

(a) The nest tree mitigation lands shall be planted with a minimum of fifteen (15) trees. The planted trees will be native species, and priority shall be given to the planting of valley oak. Other native species may be planted depending upon site characteristics and probability of survival. Other tree species that may be planted are black walnut, Fremont cottonwood, and willow.

As part of its Restoration/Enhancement and Monitoring fees, MAP POA shall provide funding sufficient to cover the cost of purchasing, planting and monitoring the success of replacement trees for a period of three (3) years and to plant additional replacement trees at the rate of one (1) additional replacement tree for every replacement tree lost prior to the end of the three (3) year monitoring period. Trees planted to replace trees lost, shall be monitored for an additional three (3) year period to ensure survival until the end of the monitoring period or they will be replaced.

(2) The 200-acre contiguous lands will provide for foraging habitat in close association with the nest tree(s). The lands will be managed to provide optimum breeding Swainson's hawk foraging opportunities. A priority for management shall be dry-land pasture or alfalfa which typically provide the highest prey abundance and accessibility. A blend of dry-land pasture, alfalfa, disced fields, or fallow fields (March-September) may also be used to increase habitat diversity.

The mitigation requirement for the 200-acre Swainson's hawk reserve is based on the hawks use of core-habitat-use areas, which have been shown to range from 65 to 200 acres and that could support a breeding pair of Swainson's hawk.

**c. Burrowing Owl**

Using MAP funds, the NBC would establish roughly 1000 acres of habitat reserves. Under the Regional Program, 25% of the reserve land (250 acres) would be maintained as upland habitat, potentially suitable for the burrowing owl, and 50% of the land (500 acres) would be maintained in rice production with the associated canal and ditches needed to move water on and off the rice fields. The canal banks associated with rice production will be managed by the NBC to benefit the burrowing owl. In 1999, the NBC established as one of the City of Sacramento mitigation reserves an area "that is probably home to the largest concentration of burrowing owls in the Natomas Basin" (NBC, 2000). The establishment of more than 750 acres of nesting and foraging habitat suitable for the burrowing owl would off-set the impact of the loss of the 28 to 76 acres of canal and ditch bank habitat and adjacent foraging habitat that currently exists on the MAP site. In addition, the 200-acre Swainson's hawk nest tree mitigation site is expected to also support habitat suitable for this species.

**d. Loggerhead Shrike**

Using MAP funds, the NBC would establish roughly 1000 acres of habitat reserves. Under the Regional Program, 25% of the reserve land (250 acres) would be maintained as upland habitat, potentially suitable for the burrowing owl, and 50% of the land (500 acres) would be

maintained in rice production with the associated canal and ditches needed to move water on and off the rice fields. The canal banks associated with rice production will be managed by the NBC to benefit the loggerhead shrike. In 1999, the NBC established as one of the City of Sacramento mitigation reserves an area "that is probably home to the largest concentration of burrowing owls in the Natomas Basin" (NBC, 2000). The establishment of more than 750 acres of nesting and foraging habitat suitable for the loggerhead shrike would off-set the impact of the loss of the 28 to 76 acres of canal and ditch bank habitat and adjacent foraging habitat that currently exists on the MAP site. In addition, the 200-acre Swainson's hawk nest tree mitigation site is expected to also support habitat suitable for this species.

**e. Tricolored Blackbird**

Using MAP funds, the NBC would establish roughly 1000 acres of habitat reserves. Under the Regional Program, 25% of the reserve land (250 acres) would be maintained as managed marsh which would contain habitat suitable for the tricolored blackbird. The NBC would manage the land to benefit the tricolored blackbird. In 1999, the NBC established a reserve that contained habitat that was occupied by over 500 tricolored blackbirds at the time of purchase (NBC, 2000). The establishment of more than 250 acres of habitat suitable for the ricolored blackbird under the MAP HCP would offset the impact of the loss of the 5 acres of riparian scrub-shrub that currently exists on the MAP site. In addition, the 200-acre Swainson's hawk nest tree mitigation site is expected to also support habitat suitable for this species.

**f. Northwestern Pond Turtle**

Using MAP funds, the NBC would establish roughly 1000 acres of habitat reserves. Under the Regional Program, 25% of the reserve land would be maintained as managed marsh which would be suitable for the pond turtle. In accordance with this program, 250 acres of MAP mitigation land would be specifically suitable for the pond turtle. In addition, 50% of the required mitigation land would be maintained in rice production. The canals and ditches associated with rice is favorable habitat for the pond turtle. The NBC would manage the land to benefit the giant garter snake, which have similar habitat requirements as the pond turtle. Such establishment of more than 250 acres of habitat suitable for the pond turtle would offset the impact of the loss of 76 acres of canal and ditch habitat that currently exists on the MAP site.

**g. Aleutian Canada Goose, White-faced Ibis, Bank Swallow, Peregrine Falcon, Greater Sandhill Crane, Valley Elderberry Longhorn Beetle, Delta Tule Pea, and Sanford's Arrowhead**

It is expected that take levels or occurrences of take will be zero or extremely rare for these species, and that the adverse effects of such take will be minor or insignificant because the species are not known to occur in the MAP HCP area except as very infrequent visitors, or are not expected to be harmed by the Covered Activities. Furthermore, should the sandhill crane and/or the peregrine falcon be found on the MAP site, any off-site infrastructure sites, or on MAP mitigation lands, no take is authorized as they are State fully protected species. Any project related activities must cease until either species has vacated the site and/or the California Department of Fish and Game has been consulted and allows work to proceed.

The project could result in beneficial impacts to these unconfirmed species as large tracts

of habitat reserves become established in the future.

Under the HCP, adverse effects to covered species and their habitat associated with development of the MAP project will be mitigated by participation in the Natomas Basin regional mitigation program. The regional plan sets forth a program to mitigate the loss of Covered Species habitat values through long-term protection, creation, and enhancement of upland and wetland habitats under Basin-wide reserve system. Establishment of habitat reserves will provide for the protection of wetland and upland habitats as well as the plant and animal communities they support.

The MAP HCP requires participation in this regional plan, primarily by payment of mitigation fees on a per acre basis upon the cessation of farming and/or on the urbanization of the project site. Under this program, habitat reserves will be established with these fees as urbanization occurs which will offset impacts of the loss of agricultural land uses.

Through the Natomas Basin Conservancy (NBC), the Metro Air Park project will fund the establishment and management of over 1,000 acres of permanent habitat reserves, which, under the current acquisition strategy of the NBC, are expected to comprise 25% managed marsh habitat (250 acres), 50% managed rice fields (500 acres), and 25% upland habitat (250 acres). In addition, the 200-acre Swainson's hawk nest tree mitigation site is expected to also provide habitat suitable for these species.

The NBC's Site Specific Management Plans (SSMPs), which are required to be developed under the NBHCP and MAP HCP for all reserves, will incorporate management activities beneficial for all the Covered Species. For example, the NBC is using grazing to enhance grassland habitat at the Betts-Kismat-Silva property. Grazing benefits burrowing owls which require short grass in which to forage. Managed marsh habitat will be managed to provide habitat for white-faced ibis, tricolored blackbird, northwestern pond turtle, and Sanford's arrowhead.

Metro Air Park's participation in the regional plan through the NBC's programs will incrementally increase the area of large-block habitat reserves created for the benefit of covered species. Large block reserves are preferred over small isolated reserves because they are better able to sustain adequate population sizes, provide large areas of secure land for movement between species populations, typically provide a higher diversity of habitat types, and they minimize edge impacts of roads and adjacent developed areas.

## **2. Take Avoidance and Minimization Measures**

All take avoidance and minimization measures are in addition to the 0.5:1 mitigation requirement of the HCP.

### **a. Pre-construction Surveys**

Prior to commencement of construction activities on development sites in the Metro Air Park Plan area, a pre-construction survey of the site shall be conducted to determine the status and presence of, and likely impacts to, all covered species on the site. MAP POA will be responsible for contracting with USFWS-approved qualified biological consultants to carry out

the pre-construction surveys, and as necessary, to implement specific take minimization measures that have been approved by the wildlife agencies. MAP POA will provide landowners with educational materials pertaining to Covered Species, such as species descriptions, photos, habitat requirements, habits, who to call in the event a animal is found, etc.

The results of the pre-construction surveys along with recommended take minimization measures shall be documented in a report and shall be submitted to the USFWS and CDFG. Based upon the survey results, the USFWS and CDFG will approve applicable take avoidance and other site-specific mitigation measures to be carried out on the site. The pre-construction survey documents and list of take avoidance measures will be submitted to the County and/or MAP POA to prove compliance with the MAP HCP.

Reconnaissance level surveys will be conducted first to determine what habitats are present on a specific development site and what, if any, more intensive survey activities must be conducted to accurately determine the status of the Covered Species on the site. It shall be the responsibility of the MAP POA to ensure that such surveys are properly completed by member developers/landowners. Surveys shall be conducted by qualified personnel (e.g., persons with suitable biological, botanical, or related expertise). Note: negative survey results for the giant garter snake do not remove the need to carry out minimization measures if giant garter snake habitat is found on-site.

**b. Measures to Reduce Take on Giant Garter Snake**

Urban development within the Metro Air Park project site will displace giant garter snake habitat (e.g., irrigation ditches and drains), and may directly kill or injure individual garter snakes. Giant garter snakes may be killed or injured through vehicle strikes on roads, crushing beneath heavy construction equipment, or entombment in their winter retreats. Giant garter snakes that escape initial destruction in construction areas may also be killed or injured because of disorientation or lack of suitable cover resulting in starvation or predation. Non-construction related operations and maintenance activities by the water agencies may have similar effects on the giant garter snake. However, the following discussion and methods establishes the MAP HCP's take avoidance strategy for giant garter snakes, recognizing that some such measures could be modified under the Regional Plan's Adaptive Management provisions.

If the pre-construction surveys find that suitable habitat for the giant garter snake is present on a development site, then the minimization measures contained in Appendix B shall be followed.

**c. Measures to Reduce Take on Swainson's Hawk**

In order to minimize the impact of disturbance to active Swainson's hawk nest sites, on and off-site, MAP POA will implement the following measures, consistent with the biological goals and objectives for the HCP:

1. Pre-Construction Surveys: Every year, prior to the commencement of development activities at any development site within the MAP covered lands, a pre-construction survey shall be completed to determine whether any Swainson's hawk nest tress will be removed on-site, or active Swainson's hawk nest sites occur on or within ½ mile of the

MAP covered lands development site. These surveys shall be conducted according to the Swainson's Hawk Technical Advisory Committees (May 31, 2000) methodology (attached as Appendix E) or updated methodologies, as approved by the USFWS and CDFG, using experienced Swainson's hawk surveyors.

2. Active Nest Tree: If an active Swainson's hawk nest is identified, no new disturbances (e.g., heavy equipment operation associated with construction) will occur within ½ mile of an active nest between March 15 and September 15. If the active nest site is located within 1/4 mile of existing urban development, the no new disturbance zone can be limited to the 1/4 mile versus ½ mile. Routine on-going disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within ½ mile of an active nest are not restricted.
3. Nest Tree Removal: If an active nest nest tree(s) (any tree that has an active nest in the year the impact is to occur) must be removed, tree removal should only occur between October 1 and February 1 during the non-nesting season, or after baby birds have fledged.

**d. Measures to Reduce Take on Valley Elderberry Long-horn Beetle**

The conservation strategy for the valley elderberry long-horn beetle (VELB) under the MAP HCP will follow the USFWS's "Conservation Guidelines for the Valley Elderberry Long-horn Beetle," dated July 9, 1999 (attached as Appendix F). These guidelines assume that any elderberry bushes found within the range of the species are likely to provide beetle habitat, and any destruction or loss of such elderberry shrub habitat must be mitigated for according to the Guidelines. The principle conditions of the Guidelines are summarized below. VELB Guidelines, or any revision or successor to the Guidelines approved by the USFWS, are hereby incorporated as terms and conditions of the MAP HCP.

(1) Impacts to VELB habitat will be avoided whenever possible. This is best done by establishing a 100-foot buffer around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. In areas where encroachment on the 100-foot buffer has been approved, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant.

(2) Post warning signs around the protected plants and hold a pre-construction conference with workers to inform them of the need to protect the plants and the penalties for disturbing the plants.

(3) If elderberry plants cannot be avoided, they should be transplanted during the dormant season (November 1 to February 15) to an area protected in perpetuity and approved by the USFWS. Replacement seedling plants will be provided at a ratio of 1:1 to 8:1 (new planting to affected stems) as determined to be appropriate by the USFWS on a case-by-case basis.

Thus, where feasible, stands of elderberry bushes found in the Natomas Basin will be avoided and protected from development, and, where avoidance is not feasible, will be moved and mitigated for within approved managed reserves. To ensure this process is completed, biological surveys will be conducted prior to the commencement of development activities, as described in Section C. 4 below, and the results of such surveys will be reported to the affected

jurisdiction and the NBC. If VELB or elderberry bushes are found, the Conservation Guidelines will be implemented. Compliance with the VELB Guidelines shall be required in addition to compliance with the generally approved 0.5:1 mitigation requirements. The NBC will also, in its annual report, report the number of elderberry bushes affected and moved or otherwise mitigated for during the year in question (see Section G. 4 below).

**e. Measures to Reduce Take on Tricolored Blackbird**

The tricolored blackbird nests in wetland habitat with suitable vegetation (e.g., tules or blackberries) and forages on the ground in grasslands, rice fields, and other croplands. It will benefit from the managed marsh and upland habitats established under the Regional Plan. Disturbance to tricolored blackbird nesting colonies will be strictly avoided within the nesting season (April to July or while birds are present) during NBC management activities undertaken in wetland and upland reserve areas, unless otherwise approved by the USFWS and CDFG. Disturbance to nesting colonies will also be avoided, to the extent practicable, within the nesting season during all development activities conducted in the Basin. Based on these take avoidance measures, take of the tricolored blackbird in the plan area is expected to be rare to infrequent during the life of the permits.

**f. Measures to Reduce Take on Aleutian Canada Goose**

The Aleutian Canada goose winters in areas both north and south of the Natomas Basin and are expected to be only an occasional winter visitor in the Plan area. It grazes in marshes and grain crops (e.g., stubble fields) and roosts on the water. If and when the species periodically inhabits the Basin, it will benefit from the managed marsh and rice field habitats established by the NBC. In addition, the NBC is directed to utilize applicable USFWS approved Aleutian Canada goose recovery or management plans, and the Adaptive Management provisions described in Section E below, to implement any additional conservation measures deemed appropriate should use of the plan area by this species increase at any time in the future. In any case, conflicts between the Aleutian Canada goose and development activities in the Natomas Basin are expected to be minor--e.g., periodic, potential disturbance when winter stubble fields are prepared for construction projects. Therefore, little to no direct mortality of this species is expected to occur during the life of the permits.

**g. Measures to Reduce Take on White-faced Ibis**

The white-faced ibis forages in flooded rice fields, pastures, and emergent wetlands and nests in dense emergent wetlands. Though not currently known to inhabit the plan area (or at least to nest there), if and when such use occurs it will benefit from the managed marsh and rice field habitats established by the NBC. In addition, the NBC is directed to utilize applicable USFWS approved white-faced ibis recovery or management plans, and the Adaptive Management provisions described in Section E below, to implement any additional conservation measures deemed appropriate should use of the plan area by this species increase at any time in the future. Also, disturbance to any white-faced ibis nesting colonies will be strictly avoided within the ibis nesting season (April 1 to August 15, or while birds are present) during NBC reserve management activities, unless otherwise approved by the USFWS and CDFG. Disturbance to nesting colonies will also be avoided, to the maximum extent practicable, within the nesting season during all development activities conducted in the Basin. Based on these

measures, and because the white-faced ibis is only a rare visitor to the Basin, little to no direct mortality of this species is expected to occur during the life of the permits.

**h. Measures to Reduce Take on American Peregrine Falcon**

The peregrine falcon winters in the Sacramento Valley and preys on other avian species in and around wetland habitats. It will benefit from the birds attracted to the wetland and other habitats established by the NBC. Because the peregrine falcon is only a winter visitor in the Natomas Basin, does not nest in the Basin, and is highly mobile, no direct mortality of peregrine falcons in the Basin is expected to occur during the life of the permits. Furthermore, should the peregrine falcon be found on the MAP site, any off-site infrastructure sites, or on MAP mitigation lands, no take is authorized as they are State fully protected species. Any project related activities must cease until the falcon has vacated the site and/or the California Department of Fish and Game has been consulted.

**i. Measures to Reduce Take on Loggerhead Shrike**

The loggerhead shrike prefers open habitats with scattered shrubs, trees, fences, posts, or other perches. It will benefit from upland habitats established in association with wetland giant garter snake habitats. Upland reserve areas established for the Swainson's hawk under the Plan, including riparian areas adjacent to croplands, will also benefit this species. In addition, the NBC shall to the maximum extent practicable encourage and maintain loggerhead shrike perching and nesting sites on all Conservancy reserve lands, and shall avoid disturbance to loggerhead shrike nest sites during reserve management and enhancement activities to the maximum extent practicable. Because shrikes are relatively uncommon in Natomas Basin and are highly mobile, and based on the above take avoidance measures, little to no direct mortality of loggerhead shrikes in the Basin is expected during the life of the permits.

**j. Measures to Reduce Take on Bank Swallow**

The bank swallow nests in colonies composed of burrows excavated in the sides of riverbanks and forages for insects along riparian areas and over riverine habitats. No bank swallow nesting colonies are currently recorded in the MAP HCP plan area; however, the species does nest to the north along the Sacramento and Feather Rivers and may occur in the plan area over the life of Plan. Consequently it may benefit from any riparian habitats protected or created under the regional mitigation program, which it could use for nesting or foraging. In addition, the NBC is directed to utilize applicable USFWS or CDFG approved bank swallow recovery or management plans, and the Adaptive Management provisions described in Section E below, to implement any additional conservation measures deemed appropriate should use of the plan area by this species increase at any time in the future. Also, disturbance to bank swallow nesting colonies will be strictly avoided within the nesting season (March 15 to July 31, or while birds are present) during NBC reserve management activities, unless otherwise approved by the USFWS and CDFG. Disturbance to nesting colonies will also be avoided, to the maximum extent practicable, within the nesting season during all development activities conducted in the Basin. Take of bank swallows in Natomas Basin is expected to be rare to infrequent during the life of the permits.

**k. Measures to Reduce Take on Greater Sandhill Crane**

The sandhill crane forages in emergent wetlands, grasslands, and moist croplands with rice or corn stubble. Though these cranes do not currently inhabit the Natomas Basin, nearby wintering grounds include the Sacramento-San Joaquin Delta and the Consumnes River area to the south and Butte Sink area to the north. These areas are subject to a variety of development pressures, which may result in shifting sandhill crane use of the Central Valley and, possibly, in crane use of the MAP HCP plan area. If this occurs, the sandhill crane will benefit from managed marsh and rice field habitats established by the NBC, and potentially from upland reserve habitats. In addition, the NBC is directed to utilize applicable USFWS approved greater sandhill crane recovery or management plans, and the Adaptive Management provisions described in Section E below to implement any additional conservation measures deemed appropriate should use of the plan area by this species increase at any time in the future. Because these birds only winter in the vicinity of the Basin, are highly mobile, and are expected to have few direct conflicts with development activities, little to no take of this species in the Basin is expected during the life of the permits. Furthermore, should the greater sandhill crane be found on the MAP site, any off-site infrastructure sites, or on MAP mitigation lands, no take is authorized as they are State fully protected species. Any project related activities must cease until the greater sandhill crane has vacated the site and/or the California Department of Fish and Game has been consulted.

**l. Measures to Reduce Take on Burrowing Owl**

The burrowing owl prefers open, dry grassland and desert habitats and uses rodent or other burrows for roosting and nesting. It will benefit from the upland reserves established under the Plan as well as upland habitats established in association with the wetland reserves. In addition, the NBC will, to the maximum extent practicable, avoid disturbance to active burrowing owl nesting burrows during reserve management activities. These and other mitigation measures are described in the CDFG's October 17, 1995, Staff Report on Burrowing Owl Mitigation. The mitigation guidelines in that document or its successor should be followed in consultation with CDFG. Based on these measures, take of burrowing owls in the Plan area is expected to be infrequent to rare during the life of the permits.

**m. Measures to Reduce Take on Northwestern Pond Turtle**

The northwestern pond turtle is widely distributed in and around permanent and nearly permanent aquatic habitats in northern California. Habitat requirements include slack or slow-moving water, basking sites, and upland sites for nesting. Low numbers of northwestern pond turtles inhabit the aquatic habitats of the Natomas Basin, including the canals and ditches of the water conveyance system. Pond turtles will benefit from the managed marsh and rice field habitats established under regional mitigation program. In addition, the NBC is directed to consult with northwestern pond turtle researchers and experts periodically during implementation of the Regional Plan to determine what, if any, conservation opportunities for this species might exist within the Regional Plan's proposed reserve system. Such opportunities might include, but are not limited to, provision of suitable upland habitat for nesting (e.g., unshaded slopes), plentiful basking sites (e.g., floating snags), and shallow water with dense emergent and submergent vegetation for juveniles. With such management focused on the species' habitat

needs, the NBCs reserve system could support western pond turtle populations in excess of current levels, potentially resulting in an overall improvement of their status in the plan area. Take of the northwestern pond turtle could occur under the MAP HCP as a result of habitat destruction during construction activities, including the removal of irrigation ditches and drains, and during ditches and drain maintenance. However, such take will be minimized by the dewatering requirement described for giant garter snake above and is therefore expected to be at relatively minor levels.

#### **n. Measures to Reduce Take on Delta Tule Pea and Sanford's Arrowhead**

Two covered plants (delta tule pea and Sanford's arrowhead) occur primarily in other types of marshes or riparian habitats. The delta tule pea occurs in freshwater and brackish marshes and the Sanford's arrowhead occurs in freshwater marsh and emergent wetland habitats. Though not currently recorded within the MAP plan area, should they later be discovered these species would benefit under the Regional Plan through establishment of managed marsh wetland and upland habitats in the Regional Plan's reserve system and continued operation of the Basin's water conveyance system. In addition, the NBC is directed to evaluate the potential for furthering the conservation of these plant species within its reserve system through appropriate means, including but not limited to, introduction of these plants into suitable locations in the Natomas Basin. Such introduction could be accomplished through seeding or vegetative propagation in appropriate wetland habitat.

Monitoring of Plant Populations. The NBC is also directed to monitor any known populations of covered plant species within its reserve system and to survey for additional populations of covered plants, as appropriate, in accordance with the Biological Monitoring program described in Appendix A. Also the NBC is directed to report any new occurrences of these plants to the NDDB.

### **3. Special Provisions for Off-Site Infrastructure Improvements**

The general location of off-site drainage, sewer, and roadway improvements are shown in Figure 4 of the HCP. The off-site improvements will disturb approximately 123 acres of land, most of which is currently in agricultural uses. All of the pre-construction survey and take avoidance and mitigation measures described above for on-site development applies to development of the off-site improvements. In addition, MAPPOA will conduct site-specific surveys including biological surveys on MAP's off-site infrastructure improvement projects as described above (Section I. C. 3). 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, must be kept at a minimum of 250 feet from all vernal pool crustacean habitat and not affect the hydrology of the habitat.

### **4. Rice Farming Best Management Practices**

MAP POA landowners, and their lessees, who elect coverage under the permit and may in the future engage in rice farming shall employ Best Management Practices (BMPs) to maximize giant garter snake compatibility. This includes maintenance of rice checks, berms, or other water control structures in as natural a state as practicable by limiting mowing or herbicide treatment, maintenance of garter snake prey species (e.g. mosquito fish) in or near rice fields

through appropriate management, and other measures as appropriate.

However, even though rice farming is assumed to be compatible with management of habitat for the covered species, the BMPs will be reviewed by the USFWS each year and may be modified in the future. The USFWS will notify landowners and lessees covered by the permits for rice farming activities of any modifications to BMPs for the next agricultural season. The current version of BMP's for rice farming are contained in Appendix C.

#### **D. Permit Term and Mitigation Phasing, Accounting and Reporting**

##### **1. Term of Permits**

The Section 10(a)(1)(B) and Section 2081 permits are requested for and, unless terminated sooner in accordance with governing law and regulations, will be in effect for fifty years but will last only as long as MAP POA is in existence if less than fifty years. Renewal of the permits beyond the 50-year term shall be governed by the law and regulations then in effect.

##### **2. Phasing of Mitigation with Respect to Development**

Prior to commencing any infrastructure or other development on the MAP site or on any of the off-site infrastructure lands, MAP POA shall secure, or provide funds to the NBC to secure 200 contiguous acres, in perpetuity, via fee title or conservation easement that are acceptable Swainson's hawk nest tree and foraging habitat as determined by USFWS and CDFG. The reserve lands shall be transferred to NBC for permanent management and protection. Prior to such development MAP POA shall also deposit with NBC funds in an amount sufficient, as determined by NBC to permanently manage such lands.

The MAP HCP will ensure that habitat acquisition will be provided in step with habitat conversion resulting from urban development on MAP covered lands. Within one year after Habitat Acquisition Fees (HAFs) are received, the NBC shall acquire the amount of habitat mitigation lands represented by such HAFs. Acquisitions of habitat mitigation lands shall be in accordance with the NBHCP and NBIA provided that the 400-acre minimum block and 2,500-acre minimum block requirements shall be applied in the aggregate to all approved HCPs in the Natomas Basin that are based on the NBHCP, so that the plans as a whole must achieve the identified habitat block acquisition requirements. Notwithstanding the above, in the event that the NBHCP is not in effect, MAP POA retains the independent obligation to acquire a minimum of two 400-acre habitat blocks as defined in the NBHCP but is not required independently to meet the 2,500-acre minimum habitat block requirement. The one year time period may be extended by the mutual agreement in writing of the USFWS, CDFG and NBC as needed to optimize land acquisition opportunities.

MAPPOA will meet a minimum of twenty-five percent (25%) (approximately 250 acres) of its Habitat Mitigation Land (HML) requirements within Sacramento County. Acquisition of 25% HML land within Sacramento County shall commence upon either the fifth (5<sup>th</sup>) anniversary of the completion date of the Tier One infrastructure or at the time of thirty-three percent (33%) build out of the developable lands within the MAP SPA, whichever comes first. The 25% Sacramento County land acquisition requirement shall be completed at the time of seventy-five percent (75%) build out of the developable lands within the MAP SPA. At the time the 25%

HML acquisition requirement goes into effect, the NBC shall recalculate MAP HCP fees, if necessary, in order to cover the costs of land acquisition within Sacramento County.

Once grading permits have been issued for 90% of the MAP POA lands and prior to the issuance of grading permits for the last 10% of MAP POA lands, MAP POA shall provide written evidence to the USFWS and CDFG that mitigation lands representing mitigation for the last 10% have been acquired by the NBC.

### 3. Accounting of Mitigation Land

The MAP HCP mitigates for urban development in the Natomas Basin area by providing for the establishment of a reserve system composed of wetland and upland habitats, managed marshes, and rice lands, and composed of mitigation lands located inside the Basin, unless out-of-Basin mitigation is approved in writing by the USFWS and CDFG. It also includes measures to insure that mitigation lands are acquired in a timely fashion as described above, and requires the maintenance of a 0.5-to-1 mitigation ratio.

A key requirement is that at least 25 percent of habitat mitigation lands be established as managed marsh, unless the USFWS requires more based on its future Giant Garter Snake Recovery Plan. Thus, the NBC will, in its annual report specify the acreage, location, and type of reserve land (i.e., rice land versus marsh), and the percentage of each with respect to the total for all lands acquired to date and proposed for acquisition. This accounting by the NBC is to be kept separately for the City of Sacramento and for Metro Air Park since the mitigation program is severable with respect to the each permittee. Note that no Habitat Mitigation Lands in "Area C" as defined in the 1997 NBHCP, may be acquired for the MAP project.

The accounting for MAP POA will show:

- (1) Take: The annual incremental and cumulative area converted to urban development in the permit area.
- (2) Mitigation: The annual incremental and cumulative area of mitigation lands acquired:
  - a. In-Basin:
    - i. Lands managed as marsh.
    - ii. Lands managed as rice, including associated fallow land.
    - iii. Lands managed as upland reserves.
  - b. Out-of-Basin in Area "B."
  - c. Status of the initial 400 acres (when purchased and what habitat type).
- (3) Financial status:
  - a. The amount and source of funds collected.
  - b. Funds expended or committed for acquisition.
  - c. Funds held in reserve.
  - d. Summary of expenditures for and revenues from reserve land management.
  - e. An accounting of the long-term endowment account.

The total acreage of all mitigation lands acquired must equal or exceed one-half of the

total acreage of development (a 0.5:1 ratio), and must meet these criteria:

- (1) A minimum of 25 % of wetland mitigation land is to be managed marsh, unless otherwise revised as a result of the Giant Garter Snake Recovery Plan.
- (2) A maximum of twenty percent (20%) of mitigation lands may be in Area "B," after an initial, 800-acre in-Basin purchase, provided USFWS agrees in writing to the acquisition of such out of basin lands in accordance with the terms of the NBHCP and MAP HCP.
- (3) Accounting must show status of the acquisition of the contiguous 200-acre Swainson's hawk nest tree reserve.
- (4) Accounting must show fee payments and land acquisitions necessary to meet the 25% Sacramento County land requirement.

#### **4. Reporting**

Under the Regional Plan, the NBC is required to compile and submit an annual report to the USFWS and CDFG detailing urban development activities and habitat acquisition, management, and monitoring activities throughout the Regional Plan area for the preceding year. The report is due 60 calendar days from the last day of each calendar year, or portion of a calendar year, during which the permits will be in effect.

During the construction season (May 1 to September 30), MAP POA will provide the NBC with monthly accounts of the numbers of acres under development and the amount of mitigation fees paid to the County. MAP POA will also provide the NBC, County, CDFG, and USFWS with an annual accounting of the number of acres under urban development, mitigation fees paid, and the number of rice farming acres, if any, under Certificates of Inclusion. NBC will include the MAP information in the annual report required under the Regional Plan.

See Section 5 of the Metro Air Park Implementation Agreement for further information on reporting requirements within the MAP permit area.

### **E. Adaptive Management**

#### **1. General Information**

The HCP recognizes that uncertainties exist in the Plan. The Adaptive Management provisions were designed to address these uncertainties. Adaptive Management is a process that allows the MAP HCP's conservation program and reserve acquisition and management decisions to be adjusted during the life of the permits to ensure that the most up-to-date information available on the covered species is being utilized and that the conservation program is as effective as possible.

Any of the following entities may propose revisions to the MAP HCP based on the Adaptive Management provisions: (1) any permittee; (2) the Plan Operator (Natomas Basin Conservancy, or NBC); (3) the NBC Technical Advisory Committee; (4) the USFWS; (5) or CDFG. See Appendix A for further discussion of adaptive management.

MAP POA and NBC acknowledge that the NBHCP may be modified in the future and agree that any modifications to the Adaptive Management or relevant program review provisions of the NBHCP shall be deemed automatically incorporated into the MAPHCP and further agree to abide by and implement, all such provisions as those provisions may be modified from time to time.

## **2. MAP HCP Program Review at 800 Acres of Development**

The MAP HCP establishes a program review designed to evaluate the performance and effectiveness of the Plan, to be initiated when Urban Development in the MAP SPA has reached 800 acres. This program review will be triggered at the point that 800 acres of the MAP's undeveloped lands have been converted to urban uses (e.g., issued grading permits). During the time the review is being undertaken, up to, but not more than a total of 200 additional acres may be developed in MAP. In other words, no more than a total of 1,000 acres of land shall have been urbanized prior to completion of the program review and re-certification of the MAP HCP or amendment of its associated permits, as appropriate.

### **F. Changed and Unforeseen Circumstances - "No Surprises Rule"**

On February 28, 1998, the U.S. Fish and Wildlife Service and National Marine Fisheries Service published a final rule codifying "No Surprises" into federal regulation at 50 C.F.R. Sections 17.22(b)(5) and 17.32(b)(5). The "No Surprises" regulations state, in part, that, "In negotiating unforeseen circumstances, the [USFWS] Director will not require the commitment of additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources beyond the level otherwise agreed upon for the species covered by the conservation plan without the consent of the permittee. If additional conservation and mitigation measures are deemed necessary to respond to unforeseen circumstances, the Director may require additional measures of the permittee where the conservation plan is being properly implemented, but only if such measures are limited to modifications within the conserved habitat areas, if any, or to the conservation plan's operating conservation program for the affected species, and maintain the original terms of the conservation plan to the maximum extent possible. Additional conservation and mitigation measures will not involve the commitment of additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources, otherwise available for development or use under the original terms of the conservation plan without the consent of the permittee." The regulation also states that the assurances of the No Surprises regulations apply only "where the conservation plan is being properly implemented, and apply only with respect to species adequately covered by the conservation plan."

Thus, in the event that unforeseen circumstances adversely affecting any of the Metro Air Park HCP's Covered Species occur within the life of the plan, and assuming the plan is being implemented properly, the permittee would not be required by the USFWS to commit additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources beyond the level otherwise agreed upon in the HCP for the Covered Species without its consent.

Another category of circumstances is "changed circumstances". This term is defined by

the regulations as "changes in circumstances affecting a species or geographic area covered by a conservation plan that can reasonably be anticipated by plan developers and the [USFWS] and that can be planned for (e.g., the listing of a new species, or a fire or other natural catastrophic event in areas prone to such events.)"

For purposes of the "No Surprises" assurances, the term "operating conservation program" shall mean the conservation, mitigation, and management measures provided for under the MAP HCP to minimize and mitigate the impacts of incidental take of the Covered Species. The operating conservation program is described in the MAP HCP in Chapter III.

## 5. Listing of New Species

Changed Circumstances. If currently unlisted species that are addressed in the HCP as Covered Species are listed subsequent to issuance of the HCP's associated Section 10(a)(1)(B) permit, no action is required of the permittees. This is because all Covered Species are named on the federal permit and, under the terms of the permit, permit coverage for any unlisted Covered Species will become effective upon the final listing of any such species under the ESA. However, currently unlisted species that are not addressed as Covered Species in the HCP will not be included in the permit and will not be so treated in the event of listing. To the extent that any such species would likely be taken during the HCP's covered activities or jeopardized or the designated critical habitat, if any, of such species, adversely modified, the permittee agrees to implement the "no jeopardy/no take" measures identified by USFWS pursuant to 6.1.6 (4) of the MAP IA until the HCP and the federal permit are amended to obtain permit coverage for these species or until the USFWS notifies the Permittee that such measures are no longer needed to avoid jeopardy to, take of, or adverse modification of the critical habitat of, the non-covered species.

Unforeseen Circumstances. There are no unforeseen circumstances associated with the listing of new species under the ESA.

## 6. HCP Implementation

Changed Circumstances. Certain types of problems may develop during implementation of the HCP. These could include funding deficiencies, possible lack of effectiveness in some of the Plan's mitigation approaches and lands, deficiencies in certain aspects of the Plan's monitoring program, and problems in coordinating the activities of the participating jurisdictions and in distributing the location of mitigation lands equitably among the several jurisdictions. These types of changed circumstances will be addressed under the MAP Plan's midterm program review, at regular NBC TAC meetings, and the year end meeting between the wildlife agencies and permittees, including the MAP POA. MAP POA shall be responsible for levying assessments against each property owner as necessary, unless funded by another source, to provide any additional funding necessary to address any problems that may effect implementation of the MAP HCP and that have not been addressed elsewhere in the MAP HCP and MAP IA.

Unforeseen Circumstances. There are no unforeseen circumstances associated with the implementation problems of the HCP, as described above.

## 7. Decreases in Water Delivery Service/Water Delivery Failure to the Lone Tree Canal

At present the Natomás Basin contains a lengthy and complex network of canals and ditches that move agricultural irrigation water on and off the vast acreage of agricultural fields that exist in the Basin. The Natomás Central Mutual Water Company (NCMWC) maintains an extensive system of water delivery facilities, including canals and pumps, that supply and recapture water from fields and uses it over again. The Reclamation District (RD1000) provides for agricultural drainage, flood control, and levee maintenance.

The giant garter snake is known to use water filled canals and ditches to move around the Basin, although major roadways appear to limit movement in certain areas. GGS movement could be impacted in the future if water delivery through this basin wide system is eliminated or decreased significantly. In particular, the Lone Tree Canal that traverses the eastern outside boundary of the Metro Air Park site may be critical to snake movement. This canal which begins at the southeast corner of MAP site and traverses along its eastern boundary up to Elverta Road, is located on the east side of Lone Tree Road, a narrow dirt roadway. Both the NCMWC and RD1000 maintain easements on portions of the Canal.

Changed Circumstances. Listed below are several changes in circumstances that may effect water delivery and/or drainage in the Lone Tree Canal.

1) If land being served by the Lone Tree Canal did not require irrigation water according to the NCMWC, the NCMWC would reduce and/or eliminate the water it supplies to that canal. In an effort to conserve water, NCMWC typically de-waters any portions of canals that are not serving any properties. Additionally under this same situation, the amount of drain water flowing through RD1000's canals would also be decreased. A Changed Circumstances would be triggered if the water level in any canal segment (area between water control structures) drops below an average of 12 inches for more than 48 hours between the months of April and October.

2) The NCMWC holds a contract with the U.S. Bureau of Reclamation. That contract stipulates the amount of water the NCMWC receives and the amount of water that may be allocated. NCMWC's contract with the Bureau expires in 2004. Water deliveries in the Basin may be affected by the contract renegotiations. A Changed Circumstances exists if a new or renegotiated contract with the U.S. Bureau of Reclamation results in decreases in water delivers or alters that timing of the deliveries such that the water level in any canal segment drops below an average of 12 inches for more than 48 hours between the months of April and October.

3) The NCMWC does not foresee going out of business as a result of the development of the MAP project. However it cannot foresee what may happen if many more of the agricultural fields cease production in the future due to an increase in urbanization within the Basin. If NCMWC failed, all of its canals would revert to individual landowners that own the property. Farming operations that remain would have to rely on groundwater or any residual runoff in the canals for irrigation. A Changed Circumstance exists if individual landowners owners, in all or any portion of the NCMWC service area must rely on groundwater of residual canal runoff and therefore cannot maintain the water level in any canal segment above an average of 12 inches between the months of April and October.

Should water delivery to the Lone Tree canal be compromised resulting in adverse effects

to the Covered Species and their habitats, and/or resulting in expenditures of funds in excess of those required for normal maintenance and management activities on the mitigation lands or facilities, MAP POA shall prepare and fund a report, within 60 days, that explains what effects the water delivery decrease and/or failure has on maintaining water in the Lone Tree Canal. The report, to be submitted to the USFWS and CDFG, shall identify alternative means to maintain water in the canal such that the basic habitat requirements of the protected species are being met. The report shall also address any funding needed to implement such measures. The USFWS and CDFG, in consultation with MAP POA shall determine what measures shall be implemented. The MAP POA shall be responsible for levying assessments against each property owner as necessary to provide any additional funding for implementing such measures, unless MAP POA secures an alternative funding source.

Unforeseen Circumstances. There are no unforeseen circumstances associated with decreased or failure in water delivery to the Lone Tree Canal.

## **8. Flood and Drought**

Natural phenomena such as wildfires, floods and prolonged drought can result in significant adverse consequences to an HCP's covered species and their habitats. The likelihood of such occurrences depends to a large extent on the location of the HCP and the history of such events in a given region. In the MAP HCP plan area, the risk of wildfire affecting Covered Species habitats or mitigation lands is low. This is because the land use types in the area--primarily intensively managed agriculture--would not typically support uncontrolled or extensive wildfire events, compared to chaparral, forest, or similar habitats.

However, there is a significant risk of flood events in Sacramento County, to judge by extensive flooding that occurred in the area in 1986, 1997, and other years. Drought is another phenomenon that is not uncommon in California as evidenced by the recent drought years.

### **Floods**

The effects of floods on the HCP's Covered Species and on mitigation lands established under the Plan would depend on several factors--including the severity of the flood event, its duration, and the type of habitat affected. Overall, the adverse effects of flood events on the HCP's Covered Species and mitigation lands, if they occur, are expected to be relatively minor. This is because habitat mitigation lands established under the HCP--croplands, riparian corridors, wetlands, and some grasslands and woodlands--naturally experience periodic flooding and are capable of absorbing the effects of flooding with minimal or transient damage. It is also because many of the Plan's Covered Species are either adapted to flooding (e.g., the giant garter snake and northwestern pond turtle), would likely not be present or nesting during winter flood events (e.g., Swainson's hawk, burrowing owl), or are capable of fleeing the harm of such events (e.g., white-faced ibis, bank swallow, and northern harrier).

However, in some cases flood damage to HCP mitigation lands could be significant, and could include crop damage, sedimentation, downed trees and shrubs, deposits of debris, and canal blockage and destruction. Therefore, the following conditions shall apply should flooding occur in the HCP plan area during the term of the permit:

Changed Circumstances. If any flooding affects any MAP POA HCP mitigation lands or

facilities in a manner that requires expenditures of funds in excess of those required for normal maintenance and management activities, or a 100 to 200-year flood event occurs, the NBC, in consultation with USFWS's and CDFG's representatives on the Technical Advisory Committee (TAC), shall assess the extent of the damage. The NBC shall submit a report, funded by MAP POA, summarizing the nature and extent of such damage to MAP POA, USFWS, and CDFG within 60 days of the cessation of the flooding. The report shall address any damage to protected habitats on the mitigation lands and any known or suspected impacts to Covered Species occupying such lands.

If damage to mitigation lands is such that corrective action is determined to be needed, as assessed by the NBC and with concurrence of USFWS's and CDFG's representatives on the TAC, the NBC shall, within 30 days of submission of the report described above, consult with MAP POA. Together, the NBC and MAP POA shall develop a plan for implementing any necessary measures to correct for flood damage, which measures shall include, but not be limited to, the removal of sediment or debris, land recontouring, replanting vegetation, and any other measures determined by the NBC, USFWS, and CDFG, in consultation with MAP POA, to be necessary to maintain the affected area's habitat values. The plan shall also address any additional funding beyond the management funds already identified under the Plan needed to implement such measures. The MAP POA shall be responsible for levying assessments against each property owner-as necessary to provide any additional funding to NBC to implement such measures, unless MAP POA secures an alternative funding source.

Unforeseen Circumstances. A flood event greater than the 200-year event has not occurred in the last 100 years for the Sacramento or American Rivers in the vicinity of the Natomas Basin. The potential damage from such an event is not foreseeable, not predicable. Therefore, a flood and the damage resulting from an event greater than a 200-year event shall be considered an Unforeseen Circumstance.

### **Drought**

The effects of drought on the HCP's Covered Species and on mitigation lands established under the Plan would depend on its duration and its impact on water delivery service to the managed wetlands and mitigation lands managed as agriculture.

Changed Circumstances. If a drought affects any MAP POA HCP mitigation lands or facilities in a manner that requires expenditure of funds in excess of those required for normal maintenance and management, puts the maintenance of managed wetlands in jeopardy, or a prolonged drought of more than 3 years but less than 6 years occurs, the NBC, in consultation with USFWS's and CDFG's representatives on the Technical Advisory Committee (TAC), shall assess the extent of the damage. The NBC shall prepare a report, funded by MAP POA, that explains what effects the drought is having on the HCP's Covered Species and mitigation lands. The report, to be submitted to the USFWS and CDFG, shall identify available measures, if any, needed to assure that the biological needs and habitat requirements for the protected species are being met, as designed in the HCP. The NBC, USFWS and CDFG, in consultation with MAP POA shall determine what measures shall be implemented. The report shall also address any funding needed to implement such measures. The MAP POA shall be responsible for levying assessments against each property owner as necessary to provide any additional funding to NBC to implement such measures, unless MAP POA secures an alternative funding source.

Unforeseen Circumstances. A drought event lasting longer than 6 years has not occurred in recorded history for the Sacramento or American River Basins, in the vicinity of the Natomas Basin. The potential damage from such a drought is not foreseeable, nor predictable. Therefore, a drought and the damage resulting from such event lasting longer than 6 years shall be considered an Unforeseen Circumstances.

## **9. Invasion of Non-Native Species - Plant and Animal**

It is possible that the habitat reserves may become infested with non-native plant and animal species which could impact the quality of the wetland and upland habitat, although the management plans developed for the habitat reserves are required to include measures to prevent such infestations and thus the establishment of a major infestation should be low. A major infestation of fast growing weed species such as giant reed, Johnson grass, etc. can severely restrict water movement in wetlands and reduce habitat quality. The invasion of yellow star thistle in uplands can render fields useless for foraging animals. Large infestation of weedy species can become extremely expensive to control and could heavily tax the mitigation fund. Similarly there may be an invasion of non-native animals species which either prey on Covered Species or degrade habitat quality. A control program to eliminate the problem species can also be expensive.

Changed Circumstances. If a pest plant/animal infestation results in affects to any MAP POA HCP mitigation lands or facilities in a manner that requires expenditure of funds in excess of those required for normal maintenance and management activities, or an infestation that impacts greater than 25% of any single block of mitigation lands, or an infestation of any plant that is listed in the Federal noxious weed list or California Department of Food and Agricultural noxious weed list, the NBC, in consultation with USFWS's and CDFG's representatives on the Technical Advisory Committee (TAC), shall assess the extent of the damage in the habitat reserves. The NBC shall prepare a report, funded by MAP POA, within 60 days of the discovery of the infestation, which describes the extent of the problem, identifies a range of remedial actions, and includes a cost analysis for funding a control program. The report shall be submitted to USFWS and CDFG for review. The NBC, USFWS and CDFG, in consultation with MAP POA shall determine, within 30 days what measures shall be implemented to address the problem. The MAP POA shall be responsible for levying assessments against each property as necessary to provide to the NBC any additional funding for a control program, unless MAP POA secures an alternative funding source.

Unforeseen Circumstances. Due to the well documented national problem of invasive non-native plants and animals, and their effects on native vegetation and wildlife, no Unforeseen Circumstances exist for this event.

## **10. Toxic Spills and Illegal Dumping of Toxic Materials**

Toxic spills and illegal dumping of toxic materials may occur on the either the MAP POA lands or mitigation lands. Changed and Unforeseen Circumstances apply in situations where a spill or illegal dumping occur on undeveloped MAP POA lands; on mitigation lands; or, on developed MAP POA lands or any other lands where the spill or dumping may affect undeveloped MAP POA lands or mitigation lands. The effect of spills or dumping may be direct or indirect.

Changed Circumstances. If one of the situations described above occurs and causes expenditures of funds in excess of those required for normal maintenance and management activities, the NBC, with the concurrence of USFWS's and CDFG's representatives on the Technical Advisory Committee, shall determine the extent of damage to the mitigation lands or undeveloped MAP POA lands and identify and implement any appropriate remediation response. In addition, consultation with local environmental health departments or other emergency response personnel shall occur to determine the appropriate agencies and alternatives available for providing remediation. MAP POA landowners shall continue to maintain their lands in a manner that prevents toxic spills and illegal dumping of toxic materials. The NBC and MAP POA landowners maintain all rights to prosecute and seek remediation from responsible parties for toxic spills and illegal dumping of toxic materials.

Notification. It is the duty of the NBC and MAP POA to notify USFWS and CDFG immediately if either becomes aware of an existing or potential Changed Circumstance. Written notice to USFWS and CDFG shall be provided within 7 calendar days of Changed Circumstance. Similarly, USFWS or CDFG shall notify NBC and MAP POA and the other wildlife agency immediately if it becomes aware of an existing or potential Changed Circumstance.

Unforeseen Circumstances. If one of the situations described above occurs and damages greater than 75% of the total mitigation lands, or undeveloped MAP POA lands an Unforeseen Circumstance will have occurred.

## **G. Enforcement and Amendments**

### **1. Enforcement of the Section 10(a)(1)(B) and Section 2081 Permits**

The provisions of the HCP are enforceable through the terms and conditions of the Section 10(a)(1)(B) permit and 2081 permit issued by the USFWS and CDFG, respectively and the MAP Implementation Agreement. MAP POA has agreed to enforce CC&Rs and the Section 10(a)(1)(B) permit and the Section 2081 permit on all individual landowner members that have signed the CC&Rs and the County of Sacramento has agreed to cease to issue and/or suspend Urban Development Permits to a particular landowner upon notification that landowner is not in compliance with HCP requirements.

#### **a. Certificates of Inclusion**

Take authorization will be provided to MAP POA landowner members through MAP POA's issuance of Certificates of Inclusion. Certificates of Inclusion will be issued to a landowner after mitigation fees have been paid and will require applicable take avoidance measures to be carried out in accordance with the terms of the MAP HCP to the satisfaction of the USFWS and CDFG.

#### **b. Notice**

Any notice required to with regard to the HCP or the terms and conditions of the Implementation Agreement must be given to the permittee by personal delivery or be by certified mail/return receipt requested as described in Section 8.5 of the MAP IA.

## **2. Suspension/Revocation**

The USFWS or CDFG may suspend or revoke their respective permits if the permittee fails to implement the HCP in accordance with the terms and conditions of the permits or if suspension or revocation is otherwise required by law. Suspension or revocation of the Section 10(a)(1)(B) permit, in whole or in part, by the USFWS shall be in accordance with 50 CFR 13.27-29, 17.22 (b)(8), and 17.32 (b)(8) and the Implementation Agreement.

## **3. Minor Modifications and Amendments 16.Minor Modifications and Amendments**

### **a. Amendments**

Amendments to the incidental take Permits, the MAP HCP and the IA may be proposed by the MAP POA, USFWS, CDFG, and/or the NBC. The Party proposing the amendments shall provide to the NBC, MAP POA, USFWS and CDFG a written statement of the reasons for the amendments and an analysis of the effect of the amendments on the environment, Covered Species and the implementation of the MAP HCP. The Permits may be amended in accordance with all applicable legal requirements, including but not limited to the ESA, the National Environmental Policy Act (NEPA), the USFWS's permit regulations, CESA and CDFG's permit regulations. It is contemplated that minor modifications to the MAP HCP and the IA may be agreed to pursuant to subsection F. 2. b. below without requiring amendment of the Section 10(a) Permit or the Section 2081(b) Permit. In addition, certain modifications to the HCP, such as revisions to the mitigation fees or adaptive management changes to the NBHCP are deemed automatically incorporated into the MAP HCP as provided under the terms of the MAP HCP or IA and as provided in F. 2. c below.

### **b. Minor Modifications**

Minor modifications may be made to the MAPHCP and/or the Implementation Agreement (IA) by the MAP POA, USFWS, CDFG and/or the NBC. Except where another process is specifically identified under the terms of the HCP or IA with respect to particular types of modifications or as provided in F.2.c below, the Party proposing a minor modification or amendment must provide notice to the other parties. Such notice shall include a statement of the reasons for the proposed modification and an analysis of its environmental effects, its effects on the implementation of the MAP HCP and on Covered Species. The parties will use best efforts to respond to proposed modifications within sixty (60) days of receipt of such notice. Except as otherwise provided under the terms of the MAP HCP or IA, proposed modifications will become effective upon all other parties' written approval or as otherwise provided under the terms of the HCP or IA. If, for any reason, a receiving party reasonably objects to a proposed modification or amendment other than those not subject to that party's approval under the MAP HCP or IA, it must be processed as an amendment of the Permit. Neither the USFWS, nor CDFG will propose or approve minor modifications to the MAP HCP or the IA if either agency determines that such modifications would: 1) result in operations under the MAP HCP that are significantly different from those analyzed in connection with the original MAP HCP; 2) result in adverse effects on the environment that are new or significantly different from those analyzed in connection with the original MAP HCP, or 3) allow significant additional take not analyzed in connection with the original MAP HCP. Minor modifications to the MAP HCP and/or the IA may include, but are

not limited to, the following:

- (1) correction of typographic, grammatical, and similar editing errors that do not change the intended meaning;
- (2) correction of any maps or exhibits to correct errors in mapping or to reflect previously approved changes in the Permits or HCP;
- (3) minor changes to survey, monitoring or reporting protocols; and
- (4) any other type of modifications to the MAP HCP and/or the IA that are minor in relation to the MAP HCP's goals, that the USFWS and CDFG have analyzed and agreed to, including, but not limited to, the approval or execution of any agreements with the County of Sacramento, other agencies, companies or individuals to facilitate the implementation of the Permits, the MAP HCP and/or the IA Agreement, including, but not limited to, agreements referenced in the Permits, the MAP HCP and/or the IA to take any actions; delegate any duties; create, extinguish, phase out, transfer or assume obligations of any type; make adjustments to ensure consistency with the NBHCP; or take any other minor actions desired by the parties in relation to the MAP HCP and/or the IA.

Subject to the exceptions noted above and in F.2.c below, any modifications to the MAP HCP and/or the IA will be processed as amendments of the Permits in accordance with F.2.a. above.

#### **4. Automatic Amendments and Modifications**

The MAP POA, USFWS, CDFG, and NBC all desire to have the MAP HCP and the IA maintain consistency with the Natomas Basin HCP and IA with respect to the NBC's responsibilities as Plan Operator under the NBIA and the MAP IA in particular with regard to the amount of mitigation fees, the Habitat Mitigation Land (HML) mitigation ratio, adaptive management measures and changes in response to a recovery plan. As a result, each of the Parties agree that any amendment or modification to the NBHCP or NBIA that affects the NBC's obligations as Plan Operator including, the amount of mitigation fees, the HML mitigation ratio, adaptive management measures and changes in response to a recovery plan shall automatically apply to the MAP HCP and IA unless MAP POA, NBC, USFWS and/or CDFG collectively determine that the amendment or modification need not apply to the MAP HCP and MAP IA.

#### **5. Land Use Changes**

The MAP POA, USFWS, CDFG, and NBC agree that the adoption and amendment of General Plans, Specific Plans, Community Plans, zoning ordinances and similar ordinances, and the granting of implementing land use entitlements by COUNTY, pertaining to land in the Permit Area, shall be matters within the sole discretion of COUNTY, and shall not require amendments to the MAP HCP or IA or require the approval of the other Parties. However, should COUNTY adopt or amend a General Plan, Specific Plan, Community Plan, zoning ordinance or similar ordinance or grant or an implementing land use entitlement within the Permit Area that materially and adversely affects the ability of the Permittee to carry out its obligations under the MAP HCP, such COUNTY action may result in suspension or revocation

of the Permits.

## **6. Changes in Response to a Recovery Plan**

The MAP POA, USFWS, CDFG, and NBC intend that Changes in the MAP HCP or NBHCP with respect to the location of Conservancy Lands, the proportion in Managed Marsh, and other changes necessary to adapt the MAP HCP or NBHCP to meet the purposes of a Recovery Plan for the Giant Garter Snake or Swainson's Hawk shall not require an amendment of the Section 10(a)(1)(B) Permit or Section 2081(b) Permit.

## **7. County Adoption of HCP**

At such time as the County of Sacramento adopts an HCP for unincorporated lands within the Natomas Basin which includes the MAP project area, MAP POA may choose to participate in the County's HCP, as described in Section 3.1.13 of the MAP IA.

## **IV. ALTERNATIVES TO THE PROPOSED ACTION**

Section 10(a)(2)(A)(iii) of the Endangered Species Act of 1973, as amended, requires that alternatives to the taking of species be considered and reasons why such alternatives are not implemented be discussed. These alternatives are presented as follows:

### **A. No Action Alternative**

The No Action alternative means that no Section 10(a)(1)(B) permit (incidental take permit (ITP)) would be issued for take of listed species during urban development and other activities in the Metro Air Park Project area.

This alternative would maintain the status quo of no take authorized for federally listed species. Specifically, take of the federally-listed giant garter snake would be prohibited. Since the site supports the GGS, this alternative would preclude development of the MAP project as it is currently contemplated by the County Metro Air Park Special Planning Area ordinance. It is uncertain whether, and if so, which crops would be farmed on the property. Presumably the same type of crops that have historically been farmed would continue to be farmed including rice, alfalfa, sugar beets, and pasture. It is unknown whether any lands would be returned to rice farming or whether they would be maintained in dry land crops or kept fallow.

The No Action Alternative would involve the USFWS not issuing a Section 10(a)(1)(B) permit. Under this alternative, development within the project area would be subject to detailed plant and animal surveys in order to prove presence/absence of listed species within development areas. Each proposed development project would require individual consultation and potentially uncoordinated minimization and mitigation efforts. Separate incidental take permits would need to be processed which would consume significant amounts of USFWS staff time. This alternative is contrary to the USFWS policy to encourage landowner participation in regional planning efforts where they are in place as in the Natomas Basin.

This alternative would likely result in the absence of any rice land farming in the area, resulting in continued degradation of habitat area with no resulting mitigation. It is anticipated