USFWS Fish and Wildlife Service

City of Sacramento

Sutter County

Natomas Basin Habitat Conservation Plan
Final Environmental Impact Report/ Environmental Impact Statement

State Clearinghouse No. 1997062064

Volume 1

April 2003

Cover Sheet

Title of Proposed Action: Issuance of Incidental Take Permits and Implementation of the Natomas Basin Habitat Conservation Plan

NEPA Responsible Official:
Steve Thompson
Manager, California/Nevada Operations Office
U.S. Fish and Wildlife Service
2800 Cottage Way
Sacramento, California 95825

Contact Person:
Cay Goude
Assistant Field Supervisor, Endangered Species Program
U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, W-2605
Sacramento, California 95825
(916) 414-6600

Legal Authority: Endangered Species Act of 1973, as amended, Section 10(a), as implemented by 50 CFR 17.32(b)(1).

Location of Proposed Action: Natomas Basin
Sacramento and Sutter Counties, California

Applicant Names:

City of Sacramento
1231 I Street, Suite 300
Sacramento, California 95814
(916) 264-7601
Contact: Grace Hovey

Sutter County
c/o Pacific Municipal Consultants
10461 Old Placerville Road, Suite 110
Sacramento, California 95827
(916) 361-8384
Contact: Paul Junker

Natomas Basin Conservancy
1750 Creekside Oaks Drive
Suite 290
Sacramento, California 95833
(916) 649-3331
Contact: John Roberts

EIR/EIS Preparer Name:
CH2M HILL
2485 Natomas Park Drive, Suite 600
Sacramento, California 95833

Abstract

This Final Environmental Impact Report/Environmental Impact Statement (Final EIR/EIS) describes the affected resources and evaluates the potential impacts to those resources in the Natomas Basin and Area B as a result of implementing the Proposed Action. The Proposed Action comprises: (1) applications for Section 10(a) and Section 2081 permits or permit modifications for each of the potential permittees; (2) approval of the revised Natomas Basin Habitat Conservation Plan (NBHCP) and issuance of permits by the United States Fish and Wildlife Service and the California Department of Fish and Game; (3) implementation of the NBHCP; (4) adoption of the Implementing Agreement(s); and (5) the issuance of incidental take permits (ITPs). The permittees are the City of Sacramento, Sutter County, and the Natomas Basin Conservancy. Potential future permittees are Reclamation District No. 1000 (RD 1000) and the Natomas Central Mutual Water Company.

The objective of the Proposed Action is to reconcile the needs of 22 special-status species with planned land development and water facility operations in the Natomas Basin. Issuance of the ITP would authorize the incidental take of several listed wildlife species resulting from urban development and other activities in the Natomas Basin. These species include the federally listed giant garter snake (*Thamnophis gigas*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), and several vernal pool fairy shrimp species (*Branchinecta* spp., *Lepidurus packardi*). In addition, several federally listed plant species, including Colusa grass (*Neostapfia colusana*), and Orcutt grasses (*Orcuttia* spp.) will be listed on the permit, although "take" is not one of the prohibitions applicable to plants under Section 9 of the Federal ESA and, therefore, a Section 10 incidental take permit does not authorize take of plant species. Plants are included on the permit in recognition of the conservation benefits provided for these species under the NBHCP, and they will receive federal "No Surprises" assurances. Other species covered by the permit include the California tiger salamander (*Ambystoma californiense*), a federal and state candidate species, and the state-listed Swainson's hawk (*Buteo swainsoni*). The permits also list a suite of other wildlife species and will become effective to authorize the take of such species if they become listed in the future.

The NBHCP would establish a comprehensive program for the preservation and protection of habitat for threatened and endangered species potentially found on approximately 55,537 acres of undeveloped and agricultural land in northwestern Sacramento County and southern Sutter County (Natomas Basin and Area B). The acquisition of lands or conservation easements for the purpose of creating and managing permanent habitat reserves would be undertaken by the Natomas Basin Conservancy and would consist of managed marsh habitats, upland habitats, rice fields (which would typically be leased for use to rice farmers), and associated buffers and infrastructure. The NBHCP also includes management measures that are intended to avoid, minimize, and mitigate effects on species during activities by RD 1000 and Natomas Mutual and during urban development activities, if those agencies decide to apply for an ITP under the NBHCP in the future.

Contents

Attachments

Appendices

Tables

Figures

Acronyms and Abbreviations

ALUC	Airport Land Use Commission
AOC	area of concern
BO	biological opinion
BRD	U.S.G.S. Biological Resources Division
CDFG	California Department of Fish and Game
CDP	North Natomas Comprehensive Drainage Plan
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
City	City of Sacramento, California
CVP	Central Valley Project
DA	development agreement
DWR	Department of Water Resources, California
EIR/EIS	environmental impact report/environmental impact statement
ESA	Endangered Species Act
FEMA	Federal Emergency Management Administration
GIS	Geographic Information System
HCP	Habitat Conservation Plan
IA	Implementation Agreement
IPM	integrated pest management
ITP	incidental take permit
Joint Vision	City/County Natomas Basin Joint Vision
LAFCO	Local Agency Formation Commission
MAP	Metro Air Park
MEP	maximum extent practicable
MOAs	Memoranda of Agreement

MOU	Memorandum of Understanding
MSCP	Multi-Species Conservation Program
Natomas Mutual	Natomas Mutual Water Company
NBHCP	Natomas Basin Habitat Conservation Plan
NEPA	National Environmental Policy Act
NOA	Notice of Availability
NOI	Notice of Intent
O&M	operations and maintenance
R&E	restoration and enhancement
RD 1000	Reclamation District No. 1000
ROD	Record of Decision
ROW	right-of-way
Sacramento County	County of Sacramento, California
SAFCA	Sacramento Area Flood Control Agency
SMUD	Sacramento Municipal Utility District
SOI	Sphere of Influence
SOPA	Society of Professional Archaeologists
Sutter County	County of Sutter, California
TAC	Technical Advisory Committee
TNBC	The Natomas Basin Conservancy
USACE	U.S. Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VELB	valley elderberry longhorn beetle

SECTION 1

Introduction to the Final EIR/EIS

This Final Environmental Impact Report/Environmental Impact Statement (Final EIR/EIS) addresses the potential environmental effects that could result from implementing the proposed Natomas Basin Habitat Conservation Plan (NBHCP). The Final EIR/EIS has been prepared in accordance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The City of Sacramento, California, (City) and County of Sutter, California (Sutter County) are the co-lead agencies for the CEQA process. The United States Fish and Wildlife Service (USFWS) is the lead federal agency for the NEPA process. These agencies have independently evaluated, directed, and supervised the preparation of this document. The Natomas Basin Conservancy (TNBC), Reclamation District No. 1000 (RD 1000) and the Natomas Mutual Water Company (Natomas Mutual) have also participated in the NBHCP development process.

1.1 Format of the Final EIR/EIS

The Final EIR/EIS for the NBHCP has been prepared pursuant to the requirements of CEQA, which apply to the state and local actions, and to the requirements of NEPA, which apply to the federal actions. The abbreviated format used for this Final EIR/EIS complies with Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1503.4 (c)) and State CEQA guidelines, Section 15132.

This Final EIR/EIS comprises two volumes and contains an introduction, the identification of the NEPA Preferred Alternative, modifications and updates to the EIR/EIS and the NBHCP since the publication of the Draft EIR/EIS, a summary of consultation and coordination, major comment areas, copies of all public comments and letters received by the lead agencies (Attachment 1) and the responses to the comments (Attachment 2), and appendices containing additional information.

Each public comment or letter in Attachment 1 has numbered comments, with a corresponding response in Attachment 2 that answers the specific comments and issues raised in the letter. The comment letters and responses are preceded by an index (Section 3.2) that includes the document identification number for each letter and the name of the agency (federal, state, or local), organization, or individual that produced the letter of comment. To assist the reader in finding individual letters, the comments and responses are divided into three categories:

- Government – G (federal agencies, state agencies, local agencies)
- Organizations – O
- Individuals – I

Numerous references are made throughout the Final EIR/EIS to the Draft EIR/EIS and to the Draft EIR/EIS Appendices. These documents were previously circulated and are not being reproduced. Copies, however, are available for inspection at the public agency locations

noted on the cover sheet. The Draft EIR/EIS and supporting appendices, together with the Final EIR/EIS, constitute the full CEPA/NEPA documentation of the Proposed Action.

1.2 Summary of Public Review Process

1.2.1 Issuance of NOAs

Notices of Availability (NOAs) were published by both the USFWS and (jointly) by the City of Sacramento and Sutter County on August 16, 2002. The public review period was originally scheduled for 60 days from August 16, 2002 to October 16, 2002. An extension to the public review period was published by amended NOAs. The public review period was extended by 50 days, to December 5, 2002. The NOA for the Final EIS was published in the *Federal Register*. Additional notices on the Final EIR/EIS and Final NBHCP were published in *The Sacramento Bee* and the *Appeal-Democrat* newspapers.

1.2.2 Dates and Times of Public Meetings on the Draft EIR/EIS

The City, County, and USFWS conducted four public meetings to obtain input into the EIR/EIS on the following dates and at the following locations:

- September 23, 2002, First Session: 4:00 p.m. to 6:00 p.m.; Second Session: 7:00 p.m. to 9:00 p.m., Sacramento, California at 1231 I Street, First Floor.
- September 25, 2002, First Session: 4:00 p.m. to 6:00 p.m.; Second Session: 7:00 p.m. to 9:00 p.m., Yuba City, California at Whitaker Hall, 44 Second Street.

The meetings were conducted by the USFWS, City of Sacramento, and Sutter County in a workshop and meeting format.

Additional opportunities exist for public input on the Final EIR/EIS. For the City of Sacramento's and Sutter County's EIR, the public will have the opportunity to comment at the public hearings associated with the City of Sacramento City Council's and the Sutter County Board of Supervisors' consideration of the Final EIR. The public will have a 30-day cooling-off period to comment following the *Federal Register* publication noticing the USFWS's Final EIS. Following this period, the USFWS will issue its Record of Decision (ROD) for the Final EIR/EIS.

1.2.3 Number of Comments Received

Twenty-five comment letters were received during the 95-day public review period, comprising 450 separate comments addressed in this Final EIR/EIS. A summary table in Section 3.2 lists all of the individuals, agencies, and organizations that submitted comments on the NBHCP and Draft EIR/EIS.

1.2.4 NEPA Preferred Alternative

The USFWS did not identify a preferred alternative in the Draft EIR/EIS, in conformance with the CEQ regulations, and indicated that a preferred alternative would be identified after the public comments on the Draft EIR/EIS were available. After consideration of all comments received and the comments of cooperating agencies, the USFWS has determined

that the preferred alternative for the NBHCP is the Proposed Action The Proposed Action includes all mitigation measures contained in the monitoring program in Appendix D and summarized in Table 1-1 at the end of this section.

1.3 Recirculation Analysis

1.3.1 NEPA and CEQA Consideration of Recirculation Issues

An important step in the preparation of this Final EIR/EIS is to review all comments, changes, and additions relative to the criteria under NEPA and CEQA regarding recirculation or supplementation of the EIR/EIS. Although NEPA and CEQA differ in their provisions regarding recirculation, the standards triggering recirculation under both statutes are similar. Thus, both CEQA and NEPA require republication or recirculation for public comment in instances when the EIR or EIS has been changed in a way that prevents review of and comment on "significant" new environmental information.

Under NEPA, the standards for a supplement to an EIS are covered in the Section 40 CFR 15029 (c) (1) and (2). Under these standards, changes to the project, new circumstances, or new information may require recirculation. NEPA is clear that the mere passage of time does not trigger the recirculation or supplementation of an EIS.

Under CEQA, recirculation of an EIR may be required in instances where significant new information is introduced, or there are basic or fundamental flaws in the analysis. Section 15088.5 of the CEQA Guidelines provides guidance on significant new information and includes the following:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result, unless mitigation measures were adopted to reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
4. The draft EIR was so fundamentally inadequate and conclusory that it precluded meaningful public review and comment.

The CEQA Guidelines Section 15088.5 (b) further state that "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR."

1.3.2 Significance of Changes to the Proposed Action

Text changes to the proposed NBHCP and Implementing Agreements (IA) included as part of the Proposed Action, have been made to: (1) correct typographical or editorial errors; (2) clarify the text in response to public and agency comments received; or (3) strengthen the language of the text to represent or implement more fully the proposed mitigation measures. A summary of key changes to the NBHCP is provided on Section 2-2 of this Final EIR/EIS.

The basic framework, policies, conservation measures, and implementation elements of the NBHCP remain the same, including the Covered Species, the Covered Activities, the nature and extent of Planned Development, the mitigation measures, and the mitigation ratio. Some of the conservation measures described in the NBHCP that also will be included in the incidental take permits have been modified or further clarified in the Final NBHCP. These measures do not result in any new impacts. While minor modifications have been proposed to the NBHCP, each of these changes will either not change the impacts or will further reduce impacts anticipated from the original Proposed Action. None of these changes will create any new or more severe impacts. Since changes to the NBHCP (Proposed Action) are editorial or clarifying, recirculation is not required.

For example, the conservation strategy for vernal pool species has been refined and clarified to more clearly state the survey requirements to be employed to determine the presence of Covered Species. This section clarifies the use of the most recent and comprehensive USFWS survey guidelines, but it does not change the Proposed Action in such way that the new environmental impacts, significant changes, and new information presented would require recirculation.

Similarly, additional language regarding adaptive management, including connectivity of the Mitigation Lands, has been added to clarify the approach to connectivity in response to comments. These changes again clarify the approach, but do not significantly modify the approach such that additional environmental analysis or recirculation would be required.

1.3.3 New Information

New information has been added to the Biological Resources Technical Memorandum (Appendix H of the NBHCP) to explain and clarify in greater detail the basis of the impact analysis related to the Swainson's hawk foraging habitat. This information was prepared in the form of an Addendum to the Biological Resources Technical Memo, which is attached as Appendix K of the NBNCP. This additional information does not change the previous analysis or conclusions, but provides further clarification of the methods, assumptions, and background information used in developing the Biological Resources Technical Memorandum. This discussion of giant garter snake and Swainson's hawk is considered in the context of updated monitoring reports for the giant garter snake (Appendix E of this Final EIR/EIS) and the Swainson's hawk (Appendix F of this Final EIR/EIS).

The Economic and Planning Systems (EPS) updated Fee Study dated October 11, 2002 also has been added as Appendix B of the NBHCP. This updated fee study, containing updated estimates for the monitoring and adaptive management costs, previously was circulated for public review and comment. This information amplifies and clarifies the prior fee estimates in a manner consistent with the NBHCP. None of these changes to the fee estimates will create any new or more severe significant environmental impacts. Since the updated fee study previously was circulated for public review and the addition of this Appendix does not constitute new information nor does it result in any new or more severe environmental effects, recirculation is not required.

1.3.4 Significant New Impacts or Increase in Severity of Impact

None of the comments or the responses to comments demonstrate the existence of any new or more significant impacts than those discussed in the Draft EIR/EIS. No new significant or more severe impacts were identified that were not fully evaluated in the Draft EIR/EIS. Comments on the Draft EIR/EIS requested that the EIR/EIS be re-circulated for the following impacts:

- Some commentors requested additional information regarding "bird strikes" and the impact of such on operations of the Sacramento International Airport. This issue was covered in the Draft EIR/EIS, and the Final EIR/EIS contains further clarifying information. This new text does not identify a new impact or change in the severity of the impact, therefore, re-circulation is not required.

- Several persons commented that they do not agree with the findings in the EIR/EIS of a less-than-significant impact to Swainson's hawk foraging habitat. These comments were reviewed in light of existing scientific information, and the EIR/EIS preparers determined that the analyses continue to support the determination that the Proposed Action would result in a less-than-significant effect under NEPA and CEQA. To further support the analysis and finding, an Addendum to the Biological Technical Memorandum clarifying the analysis of impacts has been added (Appendix K of the NBHCP).

- Several commentors indicated that they do not agree with the findings in the EIR/EIS of a less-than-significant impact to giant garter snake habitat. These comments were reviewed in light of existing scientific information, and the EIR/EIS preparers determined that the analyses continue to support the determination that the Proposed Action would result in a less-than-significant effect under NEPA and CEQA.

- Several commentors were also concerned that the execution of the Memorandum of Understanding regarding the City of Sacramento—Sacramento County Joint Vision planning effort, and information about other potential development activities constitutes new information regarding the potential for future development in the Basin. Commentors indicated that much of this information became available after the Draft EIR/EIS was released for public review, and that it represents new information regarding reasonably foreseeable development in the Basin that could result in new significant or more severe cumulative impacts not considered in the EIR/EIS. These comments were also reviewed extensively.

  Master Responses 3 (Joint Vision) and 4 (Cumulative Impacts) provide a thorough evaluation of the validity of the cumulative assumptions used in the Draft EIR/EIS. Based on the findings and analysis included in the Draft EIR/EIS and further clarified in Master Responses 3 and 4, no new significant or substantially more severe cumulative impacts were identified. Thus, re-circulation is not required.

1.3.5 New Alternatives or Mitigation Measures

Both CEQA and NEPA require that an EIR/EIS study a range of alternatives. The EIR/EIS evaluates five alternatives, including the Proposed Action. Under CEQA, re-circulation may be required if a new alternative, which is substantially different from an alternative analyzed

in the environmental document, becomes available and reasonably meets the goals and objectives of the proposed project. Several commentors suggested a preference for one or another of the alternatives studied in the EIR/EIS. For example, several commentors prefer an NBHCP program that includes a mitigation ratio of 1:1. This alternative (Alternative 1, Increased Mitigation) was included in the Draft EIR/EIS analysis, and therefore, it is not a new alternative not previously analyzed. Other commentors expressed a preference for either reduced development (therefore, reduced impact) or an alternative that designates specific reserve zones. Both of these alternatives also were fully analyzed in the Draft EIR/EIS and, therefore, no new alternative analysis is required.

Regarding reduced development, the Draft EIR/EIS studied an alternative that reduced Planned Development from 17,500 to 12,000 acres. Further reductions of Planned Development were not considered to be within the reasonable realm of the purpose and need of the project, which is to extend incidental take coverage to allow the City of Sacramento and Sutter County to implement their adopted general plans.

One letter of comment presented a scenario that the commentor referred to as an "Acceptable HCP." This alternative covered land uses and mitigation throughout the entire Natomas Basin, including lands in the unincorporated portion of Sacramento County and privately owned agricultural lands. This scenario proposes that a detailed management prescriptions for all non-urban land in the Natomas Basin should be developed, including specifications regarding the type and proportion of private agricultural crops.

While this scenario provided a vision for the entire Natomas Basin, it also included elements that are outside the purpose and need or scope of the NBHCP and EIR/EIS. For example, the County of Sacramento would not be a permittee under the NBHCP, and none of the Applicants (City of Sacramento, Sutter County, or TNBC) or wildlife agencies (USFWS and CDFG) have land use control over the unincorporated areas of the County of Sacramento. Therefore, for purposes of the cumulative analysis and baseline conditions, the EIR/EIS must assume that development in the unincorporated area of the County of Sacramento would occur consistent with the existing land uses, General Plan designations, and zoning that govern the lands within the Basin.

The suggested "Acceptable HCP" would include 17,500 acres of acquired habitat based on a 1:1 mitigation ratio and retain 11,000 acres of agriculture or open space (Sacramento County Airport buffer lands and other lands outside of the Permit Areas). Regarding assumptions of the analysis for the type of land uses in the unincorporated portion of Sacramento County, Table 3-4, page 3-20 of the Draft EIR/EIS provides this information. Based on the adopted General Plan, non-urban uses in excess of 11,000 acres were assumed in the EIR/EIS analysis. The "Acceptable HCP" proposes a 1:1 mitigation ratio with acquisition of lands based on habitat value. This mitigation approach falls within the range of alternatives analyzed by the EIR/EIS, which includes an alternative at a 1:1 mitigation ratio, an alternative with identified reserve zones, and a habitat-based mitigation program. The "Acceptable HCP" therefore does not propose either a new alternative or an alternative that is significantly different from those analyzed in the EIR/EIS. Also, in its evaluation, the EIR/EIS concluded that each of these alternatives would be infeasible.

No new mitigation measures have been suggested or included in the EIR/EIS. Some text changes and additions to the mitigation policies of the NBHCP have been included for clarification (see Section 1.3.2 above).

1.3.6 Adequacy of the EIR/EIS

Based on the standards included in CEQA and NEPA for adequacy of analysis, the Lead Agencies have determined that with the clarifications, corrections, and supportive information included in this Final EIR/EIS and the proposed Final NBHCP, the Final EIR/EIS complies with CEQA and NEPA. For purposes of NEPA, the federal lead agency (i.e., USFWS) is responsible for the final determination of adequacy.

The U.S. Environmental Protection Agency (USEPA) is authorized under Section 309 of the Clean Air Act to review and comment on any matter subject to NEPA and to determine or rate the adequacy of an EIS. The USEPA rated the Draft EIR/EIS as Environmental Concerns (EC), which indicates that the USEPA has identified environmental impacts that should be avoided to fully protect the environment, and Category 2, which indicates that additional information, data, analysis, or discussion should be included in the Final EIS. The report preparers have given considerable attention in responding to the comments of the USEPA and providing, where necessary, clarifying information to respond to any concerns raised by the USEPA. Each of the USEPA's comments has been addressed in this Final EIR/EIS.

1.4 Summary of Potential Environmental Impacts of Proposed Action and Alternatives

Table 1-1 is reproduced from the Draft EIR/EIS that summarizes the potential impacts associated with the Proposed Action and alternatives.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
4.2 Geology and Soils					
Impact: Less-than-significant increases in erosion resulting from development of habitat reserves.	Impact: Greater impacts than the Proposed Action, but less than significant.	Impact: Greater impacts than the Proposed Action, but less than significant.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.
4.3 Water Resources					
Impact: Less-than-significant increases in flood potential resulting from management of habitat reserves.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.
Impact: Potentially significant decreases in stormwater quality resulting from development of habitat reserves. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Construction of habitat reserves shall adhere to the requirements of the State Water Resources Control Board's General Permit for Stormwater Discharges Associated with Construction Activity, as amended from time to time, by filing an Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board. For development activities on each reserve site, the Conservancy shall prepare a Stormwater Pollution Prevention Plan that includes best management practices consistent with the City's Administrative and Technical Procedures for Grading and Erosion and Sediment Control and Sacramento County's Erosion and Sediment Control Standards and Specifications, regardless of whether the reserves are located in Sacramento or Sutter County. Best management practices shall focus on the control of sediment discharge into local drains (e.g., through installation of barriers such as silt fences and through tracking controls) and the release of hazardous materials from construction operations (e.g., through the use of designated staging areas with onsite controls).	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level with mitigation. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level with mitigation. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar to Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.
Impact: Less-than-significant impacts associated with future water availability in the Natomas Basin.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
4.4 Biological Resources					
Impact: Marsh habitat as measured by rice fields, canals and drains, and ponds and seasonally wet areas would decline in the Natomas Basin by 8,087 acres (35 percent), 404 acres (23 percent), and 21 acres (22 percent), respectively, because of authorized development. Permanent reserves would be established, including 2,187.5 acres of managed marsh and 4,350 acres of rice. EIR/EIS Mitigation Measure: As part of the process for development review, the City and Sutter County will include a provision that public or private development projects that could support jurisdictional wetlands will result in no net loss of wetlands and will ensure that that wetlands functions and values will be maintained.	Impact: Impacts to marsh habitat associated with authorized development would be the same as under the Proposed Action. Permanent reserves would be established, including 4,350 acres of managed marsh and 8,750 acres of rice. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Impacts to marsh habitat associated with authorized development would be the same as under the Proposed Action. Permanent reserves would be established, including a combined rice/managed marsh reserve acreage of 9,687 acres. EIR/EIS Mitigation Measure: Same as Proposed Action	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Marsh habitat as measured by rice fields, canals and drains, and ponds and seasonally wet areas would decline in the Natomas Basin by 5,752 acres (25 percent), 277 acres (16 percent), and 15 acres (15 percent), respectively because of authorized development. Permanent reserves would be established, including 1,500 acres of managed marsh and 3,000 acres of rice. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Marsh habitat is expected to decrease by approximately the same acreage as under the Proposed Action because of urban development. Unknown benefits associated with habitat creation.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
Impact: Upland habitat in the Natomas Basin would decrease by 9,188 acres (42 percent) because of authorized development. Permanent reserves would be established, including 2,187.5 acres of uplands.	Impact: Impacts to upland habitat associated with authorized development would be the same as under the Proposed Action. Permanent reserves would be established, including 4,350 acres of uplands.	Impact: Impacts to upland habitat associated with authorized development would be the same as under the Proposed Action. Permanent reserves would be established, including 8,074 acres of uplands.	Impact: Same as Proposed Action.	Impact: Upland habitat in the Natomas Basin would decrease by 6,063 acres (28 percent) because of authorized development. Permanent reserves would be established, including 1,500 acres of uplands.	Impact: Upland habitat is expected to decrease by approximately the same acreage as under the Proposed Action because of urban development. Unknown benefits associated with habitat creation.
Impact: Loss of riparian habitat in the Natomas Basin generally would not occur.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.
Impact: Up to 8 acres (8 percent) of oak groves in the Natomas Basin would potentially be removed because of urban development.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Expected to be approximately the same as Proposed Action.	Impact: Expected to be approximately the same as Proposed Action.
Impact: Vernal pools could be affected in North Natomas and potentially in other areas of the Natomas Basin.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Expected to be approximately the same as Proposed Action.	Impact: Expected to be approximately the same as Proposed Action.
Impact: Approximately 8,512 acres of potential habitat for the giant garter snake would be affected by authorized development in the Natomas Basin. Preservation of wetland habitat and creation and management of reserves that support 6,562 acres of giant garter snake habitat mitigates the impacts of the covered activities on giant garter snakes to a less-than-significant level.	Impact: Impacts to giant garter snake habitat would be the same as under the Proposed Action. Approximately 13,125 acres of giant garter snake habitat would be supported by the system of habitat reserves.	Impact: Impacts to giant garter snake habitat would be the same as under the Proposed Action. Approximately 9,687 acres of giant garter snake habitat would be supported by the system of habitat reserves.	Impact: Same as Proposed Action.	Impact: Approximately 6,044 acres of potential habitat for the giant garter snake would be affected by authorized development in the Natomas Basin. Approximately 4,500 acres of giant garter snake habitat would be supported by the system of habitat reserves.	Impact: Giant garter snake habitat is expected to decrease by approximately the same acreage as under the Proposed Action because of urban development. Unknown benefits associated with habitat creation.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
Impact: Two Swainson's hawk nesting territories with remaining nest trees (NB-3 and NB-6) have the potential to be abandoned because of authorized development.	Impact: Same as the Proposed Action.	Impact: Same as the Proposed Action.	Impact: Same as the Proposed Action.	Impact: Expected to be approximately the same as the Proposed Action.	Impact: Expected to be approximately the same as the Proposed Action.
Impact: Swainson's hawk foraging habitat in the Natomas Basin would decrease by 9,188 acres (42 percent) because of authorized development. Permanent reserves would be established, including 2,187.5 acres of uplands that would be managed for Swainson's hawk foraging habitat value.	Impact: Impacts to Swainson's hawk foraging habitat associated with authorized development would be the same as under the Proposed Action. Permanent reserves would be established, including 4,350 acres of uplands.	Impact: Impacts to Swainson's hawk foraging habitat associated with authorized development would be the same as under the Proposed Action. Permanent reserves would be established, including 8,074 acres of uplands.	Impact: Same as Proposed Action.	Impact: Swainson's hawk foraging habitat in the Natomas Basin would decrease by 6,063 acres (28 percent) because of authorized development. Permanent reserves would be established including 1,500 acres of uplands.	Impact: Swainson's hawk foraging habitat is expected to decrease by approximately the same acreage as under the Proposed Action because of urban development. Unknown benefits associated with habitat creation.
Impact: Overall effects to other covered species associated with habitat loss and creation would be less than significant.	Impact: Similar to Proposed Action.	Impact: Similar to Proposed Action.	Impact: Same as Proposed Action.	Impact: Expected to be approximately the same as Proposed Action.	Impact: Expected to be approximately the same as Proposed Action.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
Impact: Potentially significant effects to some other special-status species (e.g., dwarf downingia, rose mallow, Cooper's hawk, American bittern, black tern, lark sparrow, white-tailed kite, Pacific-slope flycatcher, Bewick's wren) can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Preconstruction surveys required pursuant to Section V.A.1 of the HCP shall encompass the habitat areas that could support dwarf downingia or rose mallow. If dwarf downingia or rose mallow are found during the habitat surveys, mitigation shall conform to the mitigation requirements for Delta tule pea and Sanford's arrowhead as described in the HCP and in accordance with the California Native Plant Protection Act. Preconstruction surveys required pursuant to Section V.A.1 of the HCP shall encompass the habitat areas where nesting birds could occur. In accordance with the requirements of the Migratory Bird Treaty Act, vegetation containing an occupied nest and an appropriate-sized buffer around the nests of Cooper's hawks, American bitterns, black terns, lark sparrows, white-tailed kites, Pacific-slope flycatchers, and Bewick's wrens shall not be removed until the nest has been abandoned by the nesting pair or the young have fledged.	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Expected to be approximately the same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Expected to be approximately the same as Proposed Action.
Impact: No impact to fish species of concern would occur.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.
Impact: Net reduction in waterfowl habitat would be less than significant.	Impact: Similar to the Proposed Action.	Impact: Similar to the Proposed Action.	Impact: Similar to the Proposed Action.	Impact: Similar to the Proposed Action.	Impact: Similar to the Proposed Action.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
4.5 Cultural Resources					
Impact: Potentially significant increase in the potential to disturb unknown, subsurface cultural resources resulting from development of habitat reserves. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Parcels being considered for habitat reserves shall undergo preconstruction literature review and/or field surveys, based on the discretion of a qualified archaeologist. Based on the findings of the cultural resource review and the potential for land disturbance to occur on the reserve, the Natomas Basin Conservancy could be required to complete an archaeological report and implement site-specific mitigation measures as a condition for restoration. and In the event that any historic or archaeological features (surface or subsurface) or deposits, including locally darkened soil ("midden") that could conceal cultural deposits, animal bone, shell, obsidian, mortars, or human remains are uncovered during construction, work within 100 feet of the find shall cease. A qualified archaeologist and a representative of the Native American Heritage Commission shall be consulted to develop, if necessary, further mitigation measures to reduce any archaeological impacts to a less-than-significant level before construction continues. and When Native American archaeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archaeologists who are either certified by the Society of Professional Archaeologists (SOPA) or who meet the federal standards as stated in the *Code of Federal Regulations* (36 *CFR* 61), and Native American representatives who are approved by the local Native American community	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar to Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
as scholars of their cultural traditions. If no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. When historic archaeological sites or historic architectural features are involved, all identification and treatment are to be carried out by historical archaeologists or architectural historians. These individuals shall meet either SOPA or 36 *CFR* 61 requirements. and If human bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person it believes to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-interment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have been carried out.					

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
4.6 Land Use/Consistency With Adopted Plans and Policies					
Impact: Less-than-significant land use compatibility/plan inconsistency impacts.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.
Impact: Significant loss of farmland. Not likely to be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: To the extent practicable (and to the extent that biological goals are not compromised), development of site-specific management plans will incorporate provisions that consider farmlands and agricultural use.	Impact: Greater impacts than the Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Greater impacts than the Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar to the Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.
4.7 Social and Economic Conditions					
Impact: Less-than-significant changes in local employment and tax revenues to Sacramento and Sutter counties.	Impact: Greater impacts than the Proposed Action, but less than significant.	Impact: Greater impacts than the Proposed Action, but less than significant.	Impact: Same as Proposed Action.	Impact: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.
4.8 Traffic					
Impact: Potentially significant increase in the potential for traffic safety conflicts resulting from development of habitat reserves. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Prior to commencing substantial habitat reserve development activities, the Conservancy shall evaluate traffic levels on any adjacent rural roadways that would provide construction access. Where potential traffic-safety impacts are identified, the Conservancy and/or its contractor shall prepare a Traffic Control Plan that addresses potential impacts to public safety and other construction-related nuisances. The Traffic Control Plan shall be reviewed and approved by the City of Sacramento and/or Sutter County, and should be submitted for review by Sacramento County for projects located within the unincorporated portion of Sacramento County. Traffic management measures to be included in the Traffic Control Plan include, but are not limited to, the following:	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar to Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
• Provide adequate warning to users of the roadway in the vicinity of the construction, using signs or other means visible from the roadway • Provide adequate assistance to the public in navigating the construction site through the use of flagmen • Install adequate signage for construction zones and detours • If traffic and circulation would be interrupted for an extended period, provide for the opportunity for public input from affected residents					
4.9 Noise					
Impact: Potentially significant increase in noise-related nuisances resulting from development of habitat reserves. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Prior to commencing substantial habitat reserve development activities, the Conservancy shall determine if residences or other sensitive receptors are located within 1,000 feet of the construction site. If sensitive receptors are located within 1,000 feet of the construction site, operation of construction equipment and vehicles would occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sunday.	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar to Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
4.10 Air Quality					
Impact: Potentially significant increase in NOx and PM_{10} resulting from development of habitat reserves. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: The following measures shall be implemented to reduce emissions of ozone precursors during construction activities on the habitat reserves: • To the extent feasible, the Natomas Basin Conservancy shall work with contractors that use low-NO_x, heavy-duty construction vehicles. • Construction activities shall be phased to reduce the simultaneous operation of construction equipment. • The contractor shall perform routine tuning and maintenance of construction equipment. • The contractor shall use existing on-site electric power sources in place of diesel generators to the extent that these sources are available. and The following measures shall be implemented to reduce construction-related emissions of fugitive dust (PM_{10}). • The contractor shall reduce or suspend grading and excavation activity during windy periods (i.e., winds in excess of 15 miles per hour). • The contractor shall post and enforce speed limits on unpaved driving areas. • The contractor shall apply water twice daily to disturbed areas and active construction sites. • The contractor shall treat completed sites with soil binders or vegetation.	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Greater impacts than the Proposed Action. Can be mitigated to a less-than-significant level. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Same as Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar to Proposed Action. EIR/EIS Mitigation Measure: Same as Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.

TABLE 1-1
Summary of Potential Environmental Impacts Associated with Proposed Action and Alternatives

Proposed Action	Alternative 1: Increased Mitigation	Alternative 2: Habitat-Based Mitigation	Alternative 3: Reserve Zones	Alternative 4: Reduced Potential for Incidental Take	Alternative 5: No Action
• Dirt shall be washed off trucks and other equipment before leaving the construction site.					
4.11 Public Health and Safety					
Impact: Less-than-significant public health and safety impacts resulting from the creation of habitat reserves within the bird-strike zones of Sacramento International Airport.	Impact: Greater impacts than the Proposed Action, but less than significant.	Impact: Greater impacts than the Proposed Action, but less than significant.	Impact: Same as Proposed Action.	Impact: Similar to Proposed Action.	Impact: Similar effects are expected with case-by-case mitigation.

SECTION 2

Modifications and Updates to the Draft EIR/EIS

This section presents the changes to the Draft EIR/EIS in this Final EIR/EIS (Section 2.1). It also summarizes the revisions to the Draft NBHCP (Section 2.2). For specific text changes to the NBHCP, the reader is referred to the Final NBHCP for a complete reading of the text changes.

2.1 Changes to the Draft EIR/EIS

This section identifies changes to the EIR/EIS made as a result of comments on the Draft EIR/EIS. Additional text is presented as underlined text and deleted text is presented as ~~strikethrough text~~. Each noted change is introduced in this section using *italicized text* that is provided as context for the reader – the *italicized text*, however, is not a change to the Draft EIR/EIS.

As discussed in Section 1.3 of this Final EIR/EIS, these revisions do not alter the conclusions in the Draft EIR/EIS.

Changes to Section 1.1.1, Summary of Key Issues

The following sentence is added after the first sentence in the second paragraph on page 1-1 of the Draft EIR/EIS:

> The term "permittees" is also used to describe certain entities—RD 1000 and Natomas Mutual—which have not submitted applications for permits at this time based on the NBHCP, but may choose to become Applicants, and, if incidental take permits are granted, may choose to become permittees in the future.

Changes to Section 1.5, Regulatory Framework

The following text has been added to Section 1.5 of the EIR/EIS to describe more fully CDFG's requirements for protected species:

> 1.5.8. California Fully Protected Species Provisions. Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code prohibit the taking of fully protected birds, mammals, amphibians, and fish, respectively. In the Natomas Basin, fully protected species include the white-tailed kite, greater sandhill crane, and American peregrine falcon.

Changes to Section 2.2.4, Reclamation District No. 1000 and Section 2.5.5, Natomas Mutual.

Figure 2-4 has been edited to label key canals and drains.

Changes to Section 2.3.4, Activities not Covered by Incidental Take Permits

The description of activities not covered by the incidental take permits in Section 2.3.4 of the EIR/EIS has been revised as follows:

- **Additional Regulations.** In addition to the Section 10(a)(1)(b) and Section 2081 permits, the permittees also would comply with all other applicable local, state, and federal regulations, laws, or ordinances. These include, but are not limited to, the following: U.S. Army Corps of Engineers Clean Water Act Section 404 permits; State Water Quality Control Board/Regional Water Quality Control Board Section 401 water quality certification and/or waste discharge requirements; ~~and~~ CDFG Streambed Alteration Agreements pursuant to Fish and Game Code Division 2, Chapter 6, Section 1600 et seq.; and State Reclamation Board Encroachment Permits pursuant to Section 8710 of the California Water Code.

Changes to Section 2.4.6.3, Water Agencies' Conservation Measures

The following text changes have been made to the Section 2.4.6.3, on page 2-43, first paragraph:

RD 1000's and Natomas Mutual's primary management efforts focus on keeping the canal systems functioning in a manner that ensures timely movement of irrigation water for agricultural purposes, and ensures drainage of agricultural water and storm flows from lands within the Natomas Basin. RD 1000 and Natomas Mutual carry out these activities to provide agricultural water to irrigated lands, address public health and safety concerns, and minimize damage to planted crops and other property from flooding.

Changes to Table 3.1, Description of Land Use/Habitat Categories

The following change has been made to Table 3.1 of the Draft EIR/EIS, which has been edited to clarify a location:

Ponds and Seasonally Wet Areas	Wetland/marsh areas, including ~~Prichard's Lake~~ the area around the North Drain (near RD 1000 Pumping Plant #2) and several isolated locations throughout the Natomas Basin. Based on DWR's "water surface" land use category and some "riparian vegetation" categories, with additional information provided by May & Associates data and aerial photo interpretation.

Changes to Section 3.3.3, Water Supply

The following changes have been made to Section 3.3.3 (page 3-8, first paragraph) to clarify RD 1000's irrigation operation and Natomas Mutual's water supply contracts:

Irrigation water also includes return flows from rice fields, which is ~~conveyed to downstream users through the RD 1000 drainage system.~~ held within a "closed system" that re-uses the water within the basin without release to the Sacramento River. The closed system is maintained from April through August. Natomas Mutual manages the consolidated and appropriative water rights in the area, and serves approximately 238 landowners covering approximately 36,000 acres. ~~Following the development of the federal Central Valley Project (CVP), Natomas Mutual entered into a contract with the Bureau of Reclamation to establish water~~

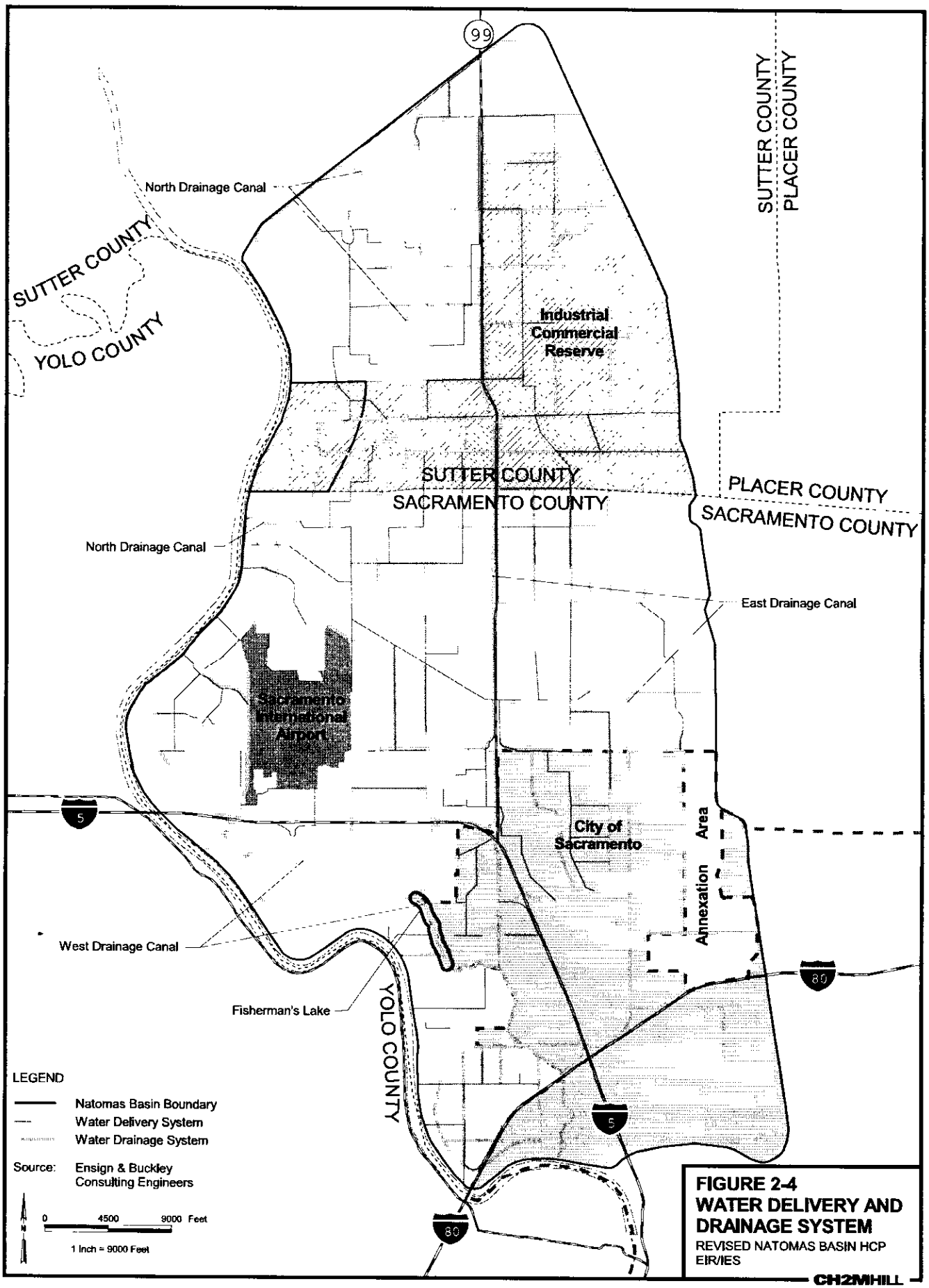


FIGURE 2-4
WATER DELIVERY AND DRAINAGE SYSTEM
REVISED NATOMAS BASIN HCP
EIR/IES

CH2MHILL

~~delivery requirements in a river system now substantially affected by the CVP. This "settlement contract" quantifies base supply diversions of 98,200 acre-feet per year and provides of up 22,000 acre-feet of CVP water per year.~~ The Natomas farming community began operations after installation of the river levees between 1916 and 1919. The landowners secured senior water rights. Nearly 30 years later, the Central Valley Project (CVP) was built and in 1946 Natomas Mutual entered into a contract with the Bureau of Reclamation for certain water supplies under a settlement contract. This settlement contract does not replace the amounts of water Natomas Mutual is entitled to divert under its pre-existing rights, licenses, and permits.

On page 3-8, second paragraph, the following text revisions have been made:

Although t~~T~~he average historical diversions from these five plants is approximately 80,000 acre-feet per year~~.~~, Natomas Mutual delivers approximately 110,000 acre-feet on average. The "closed system" enables Natomas Mutual to re-use water, effectively reducing its diversions by an average of 30,000 acre-feet per year. The State Water Resources Control Board has ruled that Natomas Mutual should be credited for that effort.

On page 3-9, first full paragraph (following bullet at top of page), the following text revisions have been made:

Although the pumping facility descriptions above list localized areas for each plant, the closed system is so interconnected that it actually re-circulates water throughout the entire system. ~~Recent improvements in the drainwater recirculation system have contributed to a substantial improvement in water management by providing a more flexible matching of supply and demand throughout Natomas Mutual's service area.~~ Conservation efforts begun in 1986 have contributed to long-term, substantial improvements in the drain water system. The re-circulation improvements have provided a more flexible matching of supply, and demand and have reduced the impacts on the Sacramento River.

On page 3-9, the following text has been deleted from the middle of the second full paragraph, starting on line 8 of that paragraph:

~~Natomas Mutual owns two small groundwater wells, producing less than 200 acre-feet per year to supplement surface water supplies.~~

Changes to Section 3.4.1, Land Use and Habitats in the Natomas Basin

Section 3.4.1, page 3-11, first full paragraph, starting on line 4, has been revised to clarify the drainage pattern in the Natomas Basin.

The drainage pattern of the Basin has been altered so that during the spring and summer months, agricultural runoff is pumped into the RD 1000 system of drains and re-circulated until August. At that point, runoff is pumped into the ~~RD 1000 system of drains and into the~~ Sacramento River at several places.

Changes to Section 3.4.2.1, Species to be Covered Under the ITPs.

Figure 3-5 has been edited to reflect that Swainson's hawk nest tree NB-18 was removed in 1998.

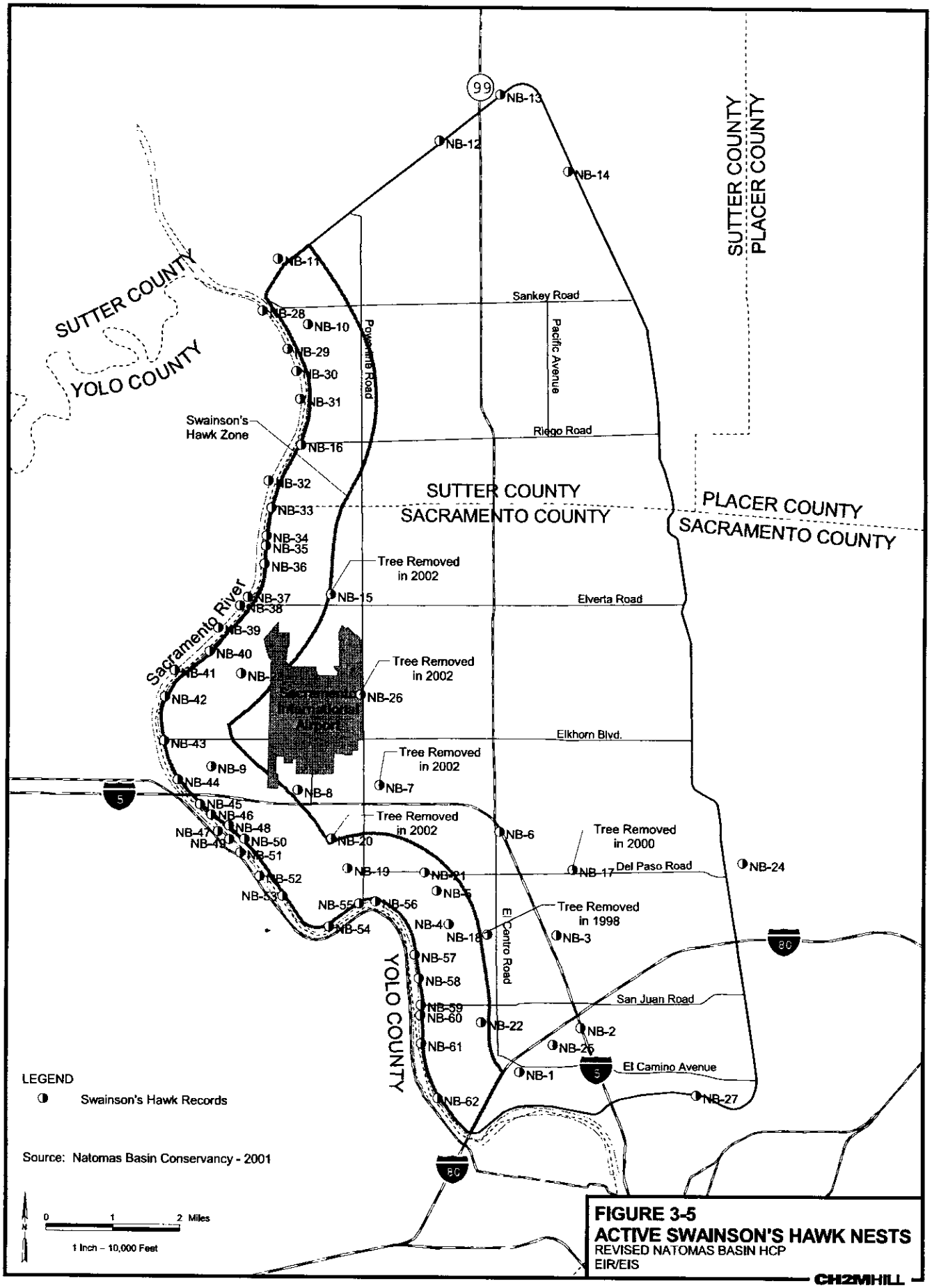


FIGURE 3-5
ACTIVE SWAINSON'S HAWK NESTS
REVISED NATOMAS BASIN HCP
EIR/EIS

CH2MHILL

Changes to Section 4.1.2.2, Actions Included in the Cumulative Impacts Analysis

The following text revisions are inserted before the first paragraph in Section 4.1.2.2, page 4-7, to clarify for the reader the approach to cumulative impacts analysis:

> The EIR/EIS evaluates the cumulative effects of past, present, and reasonably foreseeable development in the Basin. With respect to past development, development that occurred prior to 1997 when the USFWS approved the original NBHCP is included in the baseline conditions for purposes of evaluating the effects of, implementing the NBHCP on Covered Species. To account for the effects of present development, the development that occurred between 1997 and 2002 (the time between adoption of the original NBHCP by the City and preparation of the revised NBHCP) is included in the evaluation of the combined effects of the 17,500 acres of authorized development. To account for the effects of future development, the EIR/EIS relies on the adopted general plans and community plans of the City, and Sutter and Sacramento Counties as a reasonable basis for predicting the extent, amount, and location of future development. Based on these adopted plans, the Draft NBHCP contemplates the development of up to 17,500 acres of reasonably foreseeable development in the Basin as further described below, and development in the Natomas Basin in excess of this acreage is not reasonably foreseeable.

The following text has been added to Section 4.1.2.2 to clarify the rationale for defining reasonably foreseeable actions relevant to the cumulative impact analysis of the Proposed Action.

> This EIR/EIS includes past, present, and reasonably foreseeable actions that have the potential, in combination with the effects of the Proposed Action, to result in cumulative impacts. Such actions include those that:
>
> - involve the submission of an urban development permit or other permit application to a federal or non-federal agency with approval authority;[1]
> - are related to the types of impacts attributable to those that would result from implementing the Proposed Action; or
> - are based on a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, and that described or evaluated regional or area-wide conditions contributing to the cumulative impact.
>
> On the basis of these criteria, the actions identified for consideration in the cumulative impacts analysis are described below. The discussion of cumulative development is contained in Section 4.1.2.3 of this EIR/EIS and is based on available information regarding permit applications and long-range planning documents adopted by the City of Sacramento, Sacramento County, and Sutter County.
>
> Generally, the analysis of cumulative effects, as summarized below and evaluated throughout this EIR/EIS, includes actions that could affect the management of covered species in the Natomas Basin or in other parts of their range. This broad scope helps provide an understanding of the relative importance of the Proposed

Action to overall population conditions. These other management actions include federal and state wildlife refuges, as prescribed by other state and federal programs, and in other HCPs. The management included in the analysis of cumulative effects is as follows.

The following text has been added to the third paragraph on page 4-8 in Section 4.1.2.3. of the EIR/EIS to address comments raised regarding consistency with the NBHCP.

Specific land use plans have not been prepared for future development of this 10,000-acre area as part of this long-range planning effort to guide future annexations (i.e., the Joint Vision). No specific land uses or projects have been proposed for development under the Joint Vision at this time. Until the Joint Vision planning effort is completed, the status of landowner requests for development entitlements to authorize urban development outside the City's sphere of influence and County's urban services boundary remain uncertain. These requests include, specifically, any development proposals for the West Lakeside and Greenbriar Farms that may not be approved by the City under the prior NBHCP settlement agreement until the Joint Vision effort is completed. To control further the potential for development in the Natomas Basin in excess of 17,500 acres, the NBHCP states that future annexation and development requests in unincorporated portions of the Basin, such as the West Lakeside and Greenbriar Farms properties, may not seek take authorizations under the NBHCP by annexing to the City.

Changes to Section 4.1.2.3, Other Potential Actions in the Natomas Basin

The following text in Section 4.1.2.3, page 4-9 has been changed to clarify Natomas Mutual's operation:

Natomas Mutual pumping plant consolidation. Natomas Mutual operates three pumping plants along the Sacramento River~~, and is currently studying the potential for consolidating these pumping stations into one unit and installing state-of-the-art fish screens. This project would likely include additional canal improvements along the western boundary of the Natomas Basin. Detailed engineering plans and environmental review of this project have not been initiated at this time.~~ and two pumping plants in the Cross Canal. Natomas Mutual has studied the consolidation of all five pumping plants into only two diversions from the Sacramento River, complete with state-of-the-art positive fish barriers. The consolidation project is beginning in the final design stage and construction is slated for 2003-2005. CEQA compliance will be completed by 2003. The project will create improvements to habitat in the Cross Canal and some sections of the internal delivery system will also be modified to improve habitat and connectivity.

Changes to Section 4.11, Public Health and Safety

Text has been added to the introduction in Section 4.11(Public Health and Safety) to clarify the likelihood of birds at the Sacramento International Airport. The new text is added to the end of the last paragraph of the introduction section on page 4-159.

Adverse health and safety effects from urban development are unlikely because aircraft/bird strikes are attributed primarily to large waterfowl rather than the small

passerine birds that are typically associated with urban development (e.g., scrub jays, mockingbirds, house sparrows).

Changes to Appendix C, Summary of Previous Environmental Review of Planned Urban Development

The Draft EIR/EIS inadvertently omitted the following discussion from Appendix C. The following text has been added to Tables C-5 and C-8 (in Appendix C of the EIR/EIS) to summarize prior evaluation of airport/land use encroachment issues relevant to the NBHCP Covered Activity of Planned Development:

TABLE C-5
Prior Analysis of Land Use Impacts from Planned Urban Development in the Natomas Basin

Impact	Level of Significance	Mitigation	Level of Significance with Mitigation	Action
City of Sacramento General Plan EIR				
No impacts identified for land use conflicts between Sacramento International Airport and authorized development.	N/A	N/A	N/A	N/A
North Natomas Community Plan EIR				
Impact 4.6-2(A). No impacts identified for land use conflicts between Sacramento International Airport and authorized development.	N/A	N/A	N/A	N/A
South Natomas Community Plan EIR				
No impacts identified for land use conflicts between Sacramento International Airport and authorized development.	N/A	N/A	N/A	N/A
Sutter County General Plan EIR				
Impact 4.1.2. The proposed General Plan has the potential to conflict with adjacent land uses or cause a substantial adverse change in the types or intensity of existing land use patterns.	Significant	Implement General Plan Goals 1.C, 1.E, 1.F, and 9.C; Policies 1.C-4, 1.E-1, 1.E-2, 1.E-3, 1.F-1, 1.F-2, 1.F-3, 1.F-4, 9.C-1, 9.C-2, 9.C-3, 9.C-4, and 9.C-5; and Implementation Programs 1.4 and 1.7. **Mitigation Measure 4.1.2.** To ensure that new development in the South County in the vicinity of the Sacramento International	Less than Significant	No further action necessary.

TABLE C-5
Prior Analysis of Land Use Impacts from Planned Urban Development in the Natomas Basin

Impact	Level of Significance	Mitigation	Level of Significance with Mitigation	Action
		Airport does not create a conflict in terms of land use compatibility, South County shall review all new development projects within the overflight zones for consistency with the applicable airport comprehensive land use plan.		

TABLE C-8
Prior Analysis of Noise Impacts from Planned Urban Development in the Natomas Basin

Impact	Level of Significance	Mitigation	Level of Significance with Mitigation	Action
City of Sacramento General Plan EIR				
North Natomas residences in the vicinity of Sacramento International Airport would be exposed to noise levels in excess of that considered normally acceptable. *Note that the General Plan was under consideration prior to the North Natomas Community Plan Update (see impacts below).*	Significant	Full mitigation would require amending local noise control standards, amending the 1986 North Natomas Community Plan, and rerouting air traffic. The City Council determined that full mitigation was not feasible, and adopted partial mitigation to request the County Division of Airports to make operational and flight modifications.	Significant	The City Council determined that economic, social, and other considerations make it infeasible to mitigate the impacts to below-significant levels.
North Natomas Community Plan EIR				
Aircraft noise exposures will not affect land-use compatibility in the Update Area because the areas will lie outside the 60 dB CNEL contour.	Less than Significant	N/A	Less than Significant	None required
South Natomas Community Plan EIR				
No noise impacts identified between Sacramento	N/A	N/A	N/A	N/A

TABLE C-8
Prior Analysis of Noise Impacts from Planned Urban Development in the Natomas Basin

Impact	Level of Significance	Mitigation	Level of Significance with Mitigation	Action
International Airport and authorized development.				
Sutter County General Plan EIR				
No noise impacts identified between Sacramento International Airport and authorized development.	N/A	N/A	N/A	N/A

2.2 Changes to the Draft NBHCP

This section summarizes the key changes to the NBHCP. Specific text revisions are in the Final NBHCP, and the corresponding clarifications have been made to the IA.

- The conservation strategy for covered vernal pool species has been refined and clarified to more clearly state that the most recent and comprehensive USFWS survey guidelines must be used to determine the presence of covered species.

- Additional language regarding connectivity of the Mitigation Lands has been added to clarify the approach to connectivity. This new language adds a provision for TNBC to purchase lands that could potentially be targeted by the Water Agencies for closure, adds specificity to the review process under the ESA and CESA that would be required if such a closure were to occur, and adds text on the review requirements relevant to the giant garter snake in the 1-mile Swainson's Hawk Zone.

- Additional changes to the text on the East Drainage Canal and the North Drainage Canal with in Sutter County's Permit Area include construction of fences along the shared boundary of urban development and the canals. Sutter County will consult with the Wildlife Agencies to determine design strategies that would enhance conditions for giant garter snake movement through the North and East Drainage Canals. The additional text also presents possible strategies including expanded buffer areas and modified canal cross sections is Sutter County and the Water Agencies determine that such measures are feasible.

- Additional information was prepared to explain and clarify in greater detail the basis for the analysis of impacts to Swainson's hawk foraging habitat. This information is included as Appendix K of the NBHCP (Addendum to the Biological Resources Technical Memorandum). The Addendum provides additional information to clarify habitat conditions (baseline and future) for the Swainson's hawk, specifically the quantity and availability of foraging opportunities, and also updates the discussion of potential effects of removal of nest trees. Further clarification also has been provided in

the NBHCP text regarding adjustments that may be made as part of the adaptive management program to address changes in foraging habitat that could occur during the permit term.

- An updated fee study has been added as Appendix B of the NBHCP. This updated fee study contains updated estimates for monitoring and adaptive management costs.
- Clarification has been added regarding TNBC's ability to "trade-out" Mitigation Lands (i.e., to sell Mitigation Lands in exchange for higher quality lands).
- Text has been added clarifying that conservation easement will be secured on all Mitigation Lands acquired in fee title by the Plan Operator after the Plan Operator has confirmed: (1) the final location of each of the reserves, and (2) management and/or restoration and enhancement measures are being implemented on the final reserve site.
- Text has been added to clarify the process for including non-listed Covered Species in the 2081 permits should these species be listed in the future.
- Clarification has been added regarding the geographic scope of monitoring activities for Covered Species in the Natomas Basin.

SECTION 3

Responses to Comments

This section presents the responses to comments. It includes a set of five Master Responses to issues raised in the comment letters (Section 3.1) and it also includes individual responses to comments (Section 3.2 and Attachment 2).

3.1 Summary of Major Comment Responses

In reviewing the comments received on the Draft EIR/EIS, it was apparent that many commentors raised similar and overlapping issues. Consequently, to aid the decisionmakers and the reviewing public, the following Master Responses have been developed to address key comments raised. The intent of the Master Responses is to provide background and concise responses on each of the commonly raised issues to support the more specific responses included in the response to individual comments (Section 3.2 of the Final EIR/EIS). These Master Responses are intended to supplement, but not replace, specific responses to individual comments submitted. The responses are not intended to address every issue raised. The comments fall into the following general categories:

- Mitigation Ratio (Section 3.1.1)
- Connectivity (Section 3.1.2)
- Joint Vision (Section 3.1.3)
- Cumulative Impacts (Section 3.1.4)
- Swainson's Hawk Foraging Habitat (Section 3.1.5)

3.1.1 Master Response 1: Mitigation Ratio

Several commentors have raised questions or concerns regarding the proposed 0.5:1 mitigation ratio included in the NBHCP, including:

- Derivation and analysis of mitigation ratio;
- Differing mitigation ratios for NBHCP and other HCPs;
- Biological effectiveness of the NBHCP mitigation ratio developed for the Covered Species (also see Addendum to the Biological Resources Technical Memorandum, Appendix K of the Final NBHCP);
- Derivation of the economic feasibility of the mitigation ratio.

As discussed below and consistent with the USFWS's HCP Handbook, the mitigation ratio selected for the NBHCP is designed to mitigate for the loss of species and habitat values specific to the Plan Area as demonstrated by the NBHCP Biological Resources Technical Memorandum (see Appendix H of the NBHCP) and the Addendum to the Biological Resources Technical Memorandum (see Appendix K of the Final NBHCP).

3.1.1.1 Types of Mitigation Measures that HCPs Should Include

Many commentors have focused on the mitigation ratio as a measure of the adequacy of the NBHCP's mitigation program. Commentors have suggested that the 0.5:1 mitigation ratio is inadequate for purposes of mitigating the effects of incidental take of the covered activities. It is important to note that the validity and effectiveness of an HCP's mitigation program is not determined exclusively on the mitigation ratio for acquisition of mitigation lands. For example, Chapter 3 of the HCP Handbook notes that:

> Mitigation actions under HCPs usually take one of the following forms: (1) avoiding the impact (to the extent practicable); (2) minimizing the impact; (3) rectifying the impact; (4) reducing or eliminating the impact over time; or (5) compensating for the impact. For example, project effects can be (1) avoided by relocating project facilities within the project area; (2) minimized through timing restrictions and buffer zones; (3) rectified by restoration and revegetation of disturbed project areas; (4) reduced or eliminated over time by proper management, monitoring, and adaptive management; and (5) compensated by habitat restoration or protection at an onsite or offsite location. In practice, HCPs often use several of these strategies simultaneously or consecutively.

The NBHCP's Operating Conservation Program includes each and every one of these mitigation actions. To understand the full mitigation program of the HCP, the mitigation ratio, the enhancement and management of reserve lands, and the avoidance, minimization, and mitigation requirements need to be viewed in concert. For example, the NBHCP includes substantial avoidance policies to prevent disturbance of snakes during hibernation or birds during nesting activities (avoidance and minimization through timing restrictions and buffers).

Another example of avoidance is the designation of the Swainson's Hawk Zone. In Sutter County, this results in the removal of 1,015 acres of lands in the Sutter County Industrial/Commercial Reserve from the Permit Area. A third example of mitigation is the nesting tree mitigation requirements designed to rectify the loss of older nest trees over time. Yet another mitigation program is the creation and enhancement of Mitigation Lands. Finally, substantial consideration has been given to reserve management, monitoring, and adaptive management in the NBHCP. Chapter IV of the NBHCP includes reserve management criteria and Chapter V includes species specific avoidance, minimization, and mitigation measures. The NBHCP, therefore, does not rely exclusively on creation of new habitat reserves to mitigate for the impacts of development and the adequacy of the NBHCP cannot be judged by looking at the mitigation ratio in isolation from the other components of the Operating Conservation Program. Thus, the NBHCP utilizes all of the mitigation strategies listed above to create a comprehensive conservation program.

3.1.1.2 Derivation and Analysis of Mitigation Ratio

In considering the issuance of a Section 10(a) Permit, the USFWS must find that: (1) to the maximum extent practicable, the permittee has minimized and mitigated for the impacts of incidental take; (2) adequate funding is provided for the conservation plan and that the Plan specifies procedures to deal with unforeseen circumstances; (3) the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; and

(4) conservation measures required by the USFWS will be met (50 CFR §§ 17.22(b)(2)), 17.32). Consistent with the Section 10(a) permit issuance criteria, the USFWS is required to find that the proposed incidental take will not appreciably reduce the likelihood of survival and recovery of the species in the wild. Based on the information included in the Biological Resources Technical Memorandum (Appendix H of the NBHCP), the Addendum thereto (Appendix K of the Final NBHCP), and the EIS/EIR, the Lead Agencies have presented information to support the determination that the NBHCP's Operating Conservation Program will be successful in meeting Section 10 requirements. Thus, the NBHCP and the mitigation ratio seek to address the biological needs of the Covered Species in a manner that is commensurate with the impacts to the species, and that preserves the economic feasibility of compatible development in the Natomas Basin while also presenting mitigation programs that ensure that the impacts of Planned Development will not jeopardize the continued existence of any of the species.

A key component of the Operating Conservation Program is the acquisition and permanent preservation of Mitigation Lands at a mitigation ratio of 0.5 acre of Mitigation Lands acquired and preserved for each 1 acre of Planned Development. Based on scientific information and analysis contained in the Biological Resources Technical Memorandum and the EIS/EIR, as further described below, the Applicants believe the 0.5:1 mitigation ratio is adequate in mitigating for the effects of the incidental take resulting from Planned Development in the Basin.

In addition, in determining whether to issue the incidental take permits, the USFWS must find that the NBHCP minimizes and mitigates impacts to the maximum extent practicable and ensure that adequate funding will be available to fund the costs of the NBHCP's Operating Conservation Program. An Economic Analysis was conducted to evaluate the costs and feasibility of the NBHCP in consideration of the habitat, species, and efforts to assure that the NBHCP, to the maximum extent practicable, minimizes and mitigates the effects of incidental take resulting from covered activities. The Applicants conducted this analysis and reviewed a range of mitigation ratios for reserves, and different reserve acquisition approaches within the Basin (e.g., acquisition of site-specific areas). The Economic Analysis (Economic Planning Systems, 2002) also analyzed the economic feasibility of reducing the amount of development. The Economic Analysis is included in Appendix A of the NBHCP. Also see Section 3.1.1.5 and Responses to Comment O1-42 through O1-60 of this Final EIR/EIS (Section 3.2)

The Applicants considered the benefits of several replacement habitat approaches. The HCP Handbook provides guidance on the approach and location of replacement habitat:

> Generally, the location of replacement habitats should be as close as possible to the area of impact; it must also include similar habitat types and support the same species affected by the HCP. However, there may be good reason to accept Mitigation Lands that are distant from the impact area—e.g., if a large habitat block, as opposed to fragmented blocks can be protected, or if the Mitigation Lands are obtained through a mitigation fund. Ultimately, the location of mitigation habitat must be based on individual circumstances and good judgment.

The NBHCP first considered biological needs of the Covered Species in the development of the habitat mitigation. Given the specific biology of the Natomas Basin and needs of many

of the species, the preparers specifically targeted the location of Mitigation Lands within the Natomas Basin. This supports important needs of the species. For example, the USFWS recognizes 13 separate populations of giant garter snakes within California, and identifies the Natomas Basin as the largest single element of the American Basin's population of the giant garter snake that has been studied. Thus, the Applicants determined that the highest priority should be to locate reserves within the Natomas Basin to the maximum extent possible because of the unique biological and habitat needs of the giant garter snake population and other Covered Species.

The decision to locate Mitigation Lands within the Natomas Basin is not without practical challenges. For example, extensive parcels of land in the Natomas Basin exist, and this makes acquisition of consolidated habitat more challenging because multiple owners and real estate transactions must occur to achieve the minimum reserve size of 400 acres. Similarly, the cost of land in the Natomas Basin is relatively high because of the area's proximity to the Sacramento Central City, the Sacramento International Airport, Interstate 5, and State Highway 99. All of these factors have influenced the parcelization and land values of the Natomas Basin. A number of mitigation programs and mitigation banks are located in more rural areas of the Sacramento Valley (Butte County foraging areas) and Central Valley areas (San Joaquin Delta areas). The large parcel sizes and lower cost per acre of these sites was considered, but the NBHCP biology team determined that this type of mitigation would not, in all cases, clearly support the Covered Species.

Enhancement and management of Mitigation Lands, as proposed by the NBHCP, is also consistent with the guidance of the USFWS HCP Handbook. Chapter 3, states:

> In some cases, acquisition of high quality existing habitat will be the best approach--for example, where the habitat type takes years to develop (e.g., old-growth forest). In other cases, restoring degraded habitat or creating new ones is the best strategy--for example, where the habitat type is relatively easy to manipulate (e.g., grasslands). Where affected species depend on natural disturbance regimes that can be replicated through management regimes (e.g., prescribed fire or flooding), prescriptive management may be preferable to habitat acquisition or protection alone.

In accordance with this guidance, the NBHCP requires restoration and enhancement of Mitigation Lands and requires management practices specifically to support the Covered Species. The enhancement programs have been designed to ensure that each reserve offers substantial benefits to the Covered Species associated with the habitat enhanced or created on the reserve. Additionally, the Applicants, in consultation with the Wildlife Agencies, included numerous requirements for the enhancement of Mitigation Lands to ensure that habitat preserved or replaced would have higher value that the current habitat in the Basin.

The NBHCP preparers reviewed the needs of the Covered Species in establishing reserve development and management guidelines. Of the species present in the Basin, many use common elements of habitat. For example, the giant garter snake uses the upland areas of rice fields and canals (levees) for basking and hibernacula. Similarly, the Swainson's hawk may use these same upland areas for perching while foraging in fallow rice fields. Thus, a balance of enhanced habitat types is included in the NBHCP to represent the multiple needs of the species. The NBHCP calls for 25 percent of the Mitigation Lands to be enhanced

managed marsh; 25 percent to be upland areas; and 50 percent to be rice reserves specifically managed by TNBC to support the Covered Species.

For example, the enhanced rice reserves are designed to continue an element of rice landscape in the Basin that has proven to support the species. In addition to maintaining rice habitat through the Mitigation Lands, each reserve has a Site Specific Management Plan that includes best practices to support the species. For example, sections of TNBC rice reserves are fallowed each year such that at approximately 10 percent of all TNBC rice reserves are fallow, creating prime foraging lands for birds of prey such as the Swainson's hawk. Additionally, as a section of reserve is fallowed, a primary system of canals is maintained within the preserve to support connectivity and mobility of the giant garter snake. Thus, substantial biological research and enhancement is invested in each reserve to create substantially higher-value habitat than the affected habitat.

The NBHCP mitigation program, which emphasizes restoration and enhancement of habitat, has been proposed because substantial biological analysis was conducted to identify the best mitigation support for the needs of the species. Thus, while a 1:1 mitigation ratio (without enhancement and restoration) similar to the San Joaquin MSCP could also be considered in the Natomas Basin, this same approach would not provide the same increase in quality and value of habitat for the species using the Basin. A 1:1 ratio without enhancement and mitigation would, for example, not produce the same increase in managed marsh reserves, nor produce upland areas with nesting trees specifically designed to support the species covered by the NBHCP.

3.1.1.3 Differing Mitigation Ratios for HCPs

Several commentors noted that the NBHCP mitigation ratio is different from the ratio used in other HCPs. Each HCP is crafted to address the specific impacts and to identify measures which will, to the maximum extent practicable, minimize and mitigate the impacts of incidental take-given the particular biology, habitat, and other characteristics of the HCP planning area. Chapter 3 of the USFWS HCP Handbook, for instance, states:

> Mitigation programs under HCPs and Section 10 permits are as varied as the projects they address. Consequently, this handbook does not establish specific "rules" for developing mitigation programs that would limit the creative potential inherent in any good HCP effort. On the other hand, the standards used in developing HCPs must be adequate and consistent regardless of which Service office happens to work with a permit applicant. Mitigation programs should be based on sound biological rationale; they should also be practicable and commensurate with the impacts they address.

The San Joaquin Multi-Species Conservation Program (MSCP) differs from the NBHCP in several ways. It was prepared to address the incidental take of 97 species associated with the conversion of 109,302 acres consisting of agricultural lands, natural lands—non-wetlands (e.g., oak woodlands), natural lands—vernal pools, and wetlands other than vernal pools. Incidental take authorization was provided to approximately 44 of the 97 species addressed in the MSCP. Under the San Joaquin MSCP, the loss of 109,302 acres, of which approximately 75,000 acres are considered habitat for the Covered Species, is mitigated by 100,841 acres of preserved lands. Moreover, the San Joaquin MSCP provides that if a project is designed to avoid all impacts to MSCP covered species and all habitats, the project is not subject to the

MSCP compensation requirements. Thus, certain lands that do not provide habitat may be converted to urban development without triggering the requirement to purchase mitigation lands. Additionally, although the giant garter snake is addressed in the San Joaquin MSCP, the MSCP did not grant incidental take authorization for conversion of occupied habitat.

By contrast, the NBHCP was prepared to address 22 Covered Species within a 17,500-acre Plan Area. Unlike the San Joaquin MSCP, the NBHCP provides for incidental take coverage of giant garter snake, including occupied and unoccupied habitat. The NBHCP also applies the 0.5:1 mitigation ratio to all lands within the Permit Areas, whether or not they provide habitat for any of the Covered Species. In addition, even if developers avoid impacts to habitat or Covered Species, they must nonetheless pay the mitigation fees. The NBHCP covers species and habitat types and quality that are not coextensive with those in the San Joaquin MSCP; therefore, simply importing a mitigation ratio applied in the San Joaquin MSCP to the Natomas Basin is inappropriate. Finally, the mitigation program of the San Joaquin County MSCP is based largely on conservation easements for existing agricultural lands and does not include the types of habitat restoration and enhancements included in the NBHCP.

Similar to the above description of the San Joaquin County MSCP, the Metropolitan Bakersfield HCP differs from the NBHCP in several important ways. The Metropolitan Bakersfield HCP estimates that approximately 10,370 acres of land will be developed in the Bakersfield region during the Plan's 20-year permit term, out of a possible 47,600 acres of undeveloped land designated for urban use in the City of Bakersfield and Kern County General Plans. Contrary to the strict designation of Permit Areas in the NBHCP, the Metropolitan Bakersfield HCP addresses only 10,370 acres of development that could occur anywhere within a 47,600-acre area. In the Metropolitan Bakersfield HCP, mitigation lands could be purchased in target areas in the southern San Joaquin Valley (from east of Bakersfield, west across I-5, and into the Coast Ranges).

Considering that the target areas are not subject to substantial urban development pressure, the USFWS expects that land acquisition will be much easier than in the Natomas Basin (in 1994, the Metropolitan Bakersfield HCP fee was set at $1,250 per acre, including $600 per acre for land acquisition). This presents a substantially different basis for a finding of "maximum extent practicable" than the NBHCP, which requires the permittees to acquire most of the Mitigation Lands in a confined area (i.e., the Natomas Basin) within a limited portion of the Sacramento Valley. The Metropolitan Bakersfield HCP's conservation strategy is appropriate given its covered species include the San Joaquin kit fox, but the kit fox does not inhabit the Natomas Basin. In contrast, the biological goals and objectives of the NBHCP (Section I.C) focus on the habitat needs of the giant garter snake (e.g., wetland habitat with nearby uplands) and Swainson's hawk (protected nest trees with nearby foraging habitat).

The Yolo County and South Sacramento County HCPs also were noted as HCPs to which the NBHCP should be compared. Because the conservation strategies for the Yolo County and South Sacramento County HCPs are under development and have not been confirmed, it is not reasonable to make a comparison to these efforts.

3.1.1.4 Biological Effectiveness of the NBHCP Mitigation Ratio

This section summarizes the effectiveness of the NBHCP mitigation ratio in protecting covered species.

The NBHCP analysis, conducted in support of the mitigation ratio, considered the following:

- Type, quality, and extent of habitat impacted in the Basin;
- Type of species using the habitat in the Basin;
- Range of avoidance, minimization, and mitigation measures available to avoid or lessen impacts;
- Potential for enhancement of habitat areas (specifically reserves); and
- Economic feasibility of mitigation options available to minimize and mitigate, to the maximum extent practicable, impacts related to incidental take associated with the authorized development.

Each of these factors is discussed below.

Type, Quality, and Extent of Habitat in the Basin. The Natomas Basin is already a significantly altered area. Historic land reclamation activities and agricultural activities over the past century have substantially modified the system of grasslands and wet areas that formerly characterized the Basin (See also NBHCP Figure 5 of the NBHCP: 1919 Land Cover). Thus, very little high-quality native habitat remains in the Basin. A biology team from May & Associates and CH2M HILL conducted extensive field, GIS, and literature searches to identify native habitat and other existing habitat in the Basin. Native habitat is shown in Figure 8 of the NBHCP and represents approximately 5 percent or less of the Basin. The remaining habitat is largely disturbed through either existing urban uses (roadways, airports, and urban development) or agricultural uses.

Given the relatively uniform and disturbed condition of the habitat in the Basin, the HCP preparers decided to consider all undeveloped lands of relatively equal habitat value; therefore, all lands, regardless of habitat value in the Permit Areas, are required to participate in the mitigation fee program. Additionally, the NBHCP includes a list of species-specific avoidance, minimization, and mitigation requirements that must be undertaken if any of the Covered Species are present on a development site. This two-tiered mitigation approach allows for mitigation of both larger landscape impacts of general habitat loss, as well as species and site-specific avoidance and mitigation measures.

Using the GIS mapping with field-truthing by a team of wildlife biologists, the types of habitat in the Basin were mapped and the precise amount of acreage that would be impacted by habitat or land-use type was assessed and mapped. The impacts by habitat type, species, and acreage are included in the Biological Resources Technical Memorandum included as Appendix H to the NBHCP. This information identified the type and extent of impacts and forms the basis for development of the mitigation program.

A worst-case assessment of impacts was undertaken in developing the land use impact tables included for each species in Chapter VII of the NBHCP. Any lands (regardless of value or known presence of species) that could provide some support to the Covered Species was included in the impact assessment. Again, this was done because there is so little remaining native or high-value habitat in the Natomas Basin.

Species Using the Basin and their Needs. Twenty-two Covered Species were fully analyzed relative to their use of the Basin and their habitat needs. A number of the covered bird species are not permanent residents but rather are seasonal visitors to the Natomas Basin.

Additionally, several species are rarely occurring species. In the analysis of species, three general types of associated habitat and species became evident: wetland area species, upland habitat species, and vernal pool complex-related species.

Wetland Species and their Presence in and Use of the Basin. Several wetland species initially used the native marsh lands of the Basin. As the land was modified through reclamation, the construction of levees, and agricultural activities, many of these species adapted to use of the seasonally inundated rice fields and canals. Thus, despite substantial changes to the habitat in the Basin, several species have adapted to the new landscape. The giant garter snake, for example, may prefer marshlands; however, absent this type of higher quality habitat, the giant garter snake has adapted to a modified landscape of rice fields and irrigation and drainage canals. Therefore, the NBHCP mitigation program includes enhanced rice and marsh habitat to support the giant garter snake and related wetland species. At the 0.5:1 mitigation ratio, 25 percent of the reserves will be managed marshlands. Thus, the amount of marshlands in the Basin would be increased from the current 96 acres to over 2,100 acres. In addition to the substantial increase in marsh habitat to support the snake and related marsh species, the NBHCP also includes a substantial portion of rice reserves (4,375 acres) specifically managed to support the species.

Several species use marsh and wet areas, as well as vernal pool areas. These species may also require upland areas that are associated with wet areas. The associated wetland species covered by the NBHCP include:

- Aleutian Canada goose
- tricolored blackbird
- white-faced ibis
- northwestern pond turtle
- California tiger salamander
- western spadefoot toad
- delta tule pea
- Sanford's arrowhead

The Aleutian Canada goose is a winter visitor to the Natomas Basin and forages and rests in the area, but it is not known to breed or nest in the Basin. The Aleutian Canada goose has been observed using rice fields and open agricultural areas in Sutter County for winter foraging. Although, there are no known occurrences of the Aleutian Canada goose in the Natomas Basin, the NBHCP includes policies to support resting and foraging for this species in the Mitigation Lands. Thus, preservation of the rice landscape included in the mitigation plan will also support winter foraging and resting areas for the Aleutian Canada goose.

The white-faced ibis uses rice fields, ditches, and other wet areas for foraging, and it prefers extensive marsh areas for nesting. Because there is so little native marsh in the Natomas Basin, there are no known nesting sites of the white faced ibis in the Plan Area, although the species might use the Basin for resting and foraging in the winter. Under the 0.5:1 mitigation ratio with 25 percent of the Mitigation Lands in managed marsh, a substantial increase in marsh will be created (from 96 acres to 2,187 acres) thereby providing substantial habitat benefit to this species.

Tricolored blackbird uses marshes, rice fields, and meadows for foraging and nesting. Again, because of the limited amount of native marsh remaining in the Plan Area, breeding populations of this species have declined over the past several decades. TNBC has, however, had success in stabilizing and enhancing nesting and foraging habitat for this species. One of the few known nesting colonies in the Basin is located on the Betts-Kismat-Silva reserve. This species has already benefited from the mitigation ratio and plan. As more reserves, particularly managed marsh reserves, are created, this species is expected to have additional benefits for nesting and foraging.

The northwestern pond turtle, California tiger salamander, and western spadefoot toad are all species that use wetland areas with associated uplands as habitat. The pond turtle prefers marshlands and other slow-moving waters, but also uses upland areas for basking, egglaying, and overwintering. Similarly, the western spadefoot toad requires shallow, seasonal wetlands for breeding. Finally, the California tiger salamander is an aquatic breeder and therefore requires ponds, marsh, or other shallow or slow-moving waters for breeding. The juvenile and adult salamanders use upland grass areas for habitat once metamorphosis has occurred. Thus, all three of these species require marsh or wetland areas with associated uplands. There are no known occurrences of the western spadefoot toad or California tiger salamander in the Natomas Basin, although pond turtles have been observed in the Natomas Main Drain. These species will benefit by the substantial increase in managed marsh habitat under the 0.5:1 mitigation ratio. As previously noted, under the 0.5:1 mitigation ratio, 25 percent of Mitigation Lands will be managed marsh, thereby increasing the amount of marsh habitat from 96 areas to 2,187 acres. Vernal pool avoidance policies included in the NBHCP will further protect habitat for these species.

Two plant species, the delta tule pea and Sanford's arrowhead, are associated with wetland and marsh areas. Neither species has known occurrences in the Natomas Basin, largely because of the lack of marsh and wetlands remaining in the area. These species are, however, known to occur in other locations in Sacramento and Sutter Counties. Thus, under the 0.5:1 mitigation ratio, a substantial increase in marsh reserves will be realized, which may assist in the restoration of these species to the Natomas Basin.

Upland Species and their Presence in and Use of the Basin. Nearly all covered bird and animal species (except certain vernal pool species) need some upland areas for basking, hibernacula, cover, or foraging. Thus, the Applicants and the Wildlife Agencies assessed the needs and uses of upland areas by species.

The Swainson's hawk primarily uses the Natomas Basin for nesting and foraging during the nesting season and over winters in South America. Thus, the NBHCP first considered areas with nest trees or areas that could support nest trees, and assigned high value to suitable foraging areas near active nest trees (See Figure 3-5, page 3-45, of the Draft EIS/EIR). Currently, the greatest concentration of nest trees is along the Sacramento River. In this area, larger mature trees remain undisturbed by agricultural practices. For this reason, the NBHCP placed a high value on avoidance of development along the Sacramento River and within the Permit Areas. As such, the NBHCP identifies a Swainson's Hawk Zone extending 1 mile inland from the Sacramento River. Secondly, the NBHCP gives priority for upland reserve acquisition to areas within the Swainson's Hawk Zone. In this manner, the foundational strategy of the NBHCP is to avoid development in and preserve areas with known concentrations of nesting activity.

Secondly, the NBHCP seeks to create new, high-quality habitat for the Swainson's hawk and other upland species. While 25 percent of the Mitigation Lands will be exclusively dedicated to upland areas, upland portions of marsh area reserves will also be managed for a multi-species approach. Finally, rice reserves, which may be only seasonally used by some species, can be managed year round to support multiple species. Thus, the NBHCP calls for 10 percent of the rice reserves to be left fallow to support foraging by upland species during the critical nesting and breeding summer months. Thus, the 0.5:1 mitigation ratio in combination with the acquisition and management criteria of the NBHCP results in significant foraging and nesting reserve lands for the Swainson's hawk and other upland species. Table 3-1 briefly summarizes the total uplands that will be available as a result of biologically based reserve management strategies.

TABLE 3-1
Uplands Available in Mitigation Lands

Reserve Habitat Type	Acreage	Percent Upland Area	Upland Acreage
25% upland areas	2187.5	100	2,187.5
25% managed marsh, of which 20-30% is upland edges	2187.5	25	546.9
Metro Air Park Nest and Foraging Mitigation	200	100	200
Fallow rice reserves	437.5	100	437.5
Total upland foraging acreage			**3,371.9**

The above table does not include the additional 1,015 acres of lands preserved from urban development in the Swainson's Hawk Zone. The table also does not include approximately 1,000 acres of the upland edges and levees that are included in the rice reserves that may also be used by the Swainson's hawk and other upland species for foraging.

By planting trees in all upland areas, the NBHCP seeks to create new nesting sites in the Mitigation Lands in proximity to foraging habitat to benefit a number of bird species. In the upland reserves, the NBHCP also calls for tree planting and vegetation specifically designed to support the Covered Species, including planting of tree species preferred by the Swainson's hawk and other raptors for nesting. The TNBC has already established an aggressive tree planting program, including 368 trees planted on reserves to date. The plantings include a variety of species: valley oak, sycamore, and other larger trees preferred by the Swainson's hawk for nesting; and smaller trees and shrubs preferred by species such as the tricolored blackbird for nesting. The NBHCP also requires the advance planting of 60 additional trees of specific species in upland areas preferred by the Swainson's hawk. TNBC's vegetation plan results in benefits to multiple species that require coverage to ensure protection.

A number of bird species also benefit from upland areas for foraging and from vegetation along the upland edges of marshlands. These include burrowing owl, loggerhead shrike, and bank swallow. Open upland areas that remain relatively undisturbed by agricultural cultivation will provide a sustained habitat for the burrowing owl. Similarly, the bank swallow and shrike will benefit from the same upland foraging areas, including those

associated with marsh reserves. Species like the bank swallow will particularly benefit from the creation of enhanced marsh habitat with upland areas (20 percent to 30 percent of the marsh component), which is a type of habitat nearly non-existent in the Natomas Basin.

Vernal Pool Species. Vernal pool species are the most difficult to develop for mitigation because none of the vernal pool Covered Species are known to be present in the Natomas Basin. There are, however, limited vernal pools on the eastern edge of the Natomas Basin that may support these species. The approach to mitigation for these species is based on species presence. If species are present (through USFWS survey protocols) then minimization and mitigation would occur: (1) avoidance and onsite preservation; or (2) payment into a USFWS Mitigation Bank. The USFWS sponsors Vernal Pool Mitigation Banks in areas where vernal pools can most successfully maintain or support the establishment of vernal pool species. As such, mitigation for vernal pool species in areas like Natomas Basin that may have more marginal habitat often occurs through payment into an approved USFWS Mitigation Bank. Although restoration and creation of vernal pools on Mitigation Lands are not precluded by the NBHCP, such an approach would be limited to a reserve where proper soils, under soils, and hydrological conditions exist. In the Natomas Basin, there is currently very limited vernal pool habitat along the eastern edge of the Basin. Covered Species that may use vernal pool habitat include the mid-valley fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, Boggs Lake hedge-hyssop, Colusa Grass, legenere, Sacramento Orcutt grass, and slender Orcutt grass. Although there are no known occurrences of these species in the Natomas Basin, these species are granted coverage and mitigation protections in the event the existing vernal pool complexes on the eastern side of the Basin or in other areas are found to support these species.

3.1.1.5 Economic Feasibility of the Mitigation for Impacts Related to the Planned Development

Under the ESA, the findings regarding effects on biological resources primarily determine the applicable mitigation requirements for the Plan. After the biological requirements are determined, the USFWS evaluates whether the mitigation requirements are the maximum that can be practically implemented by the applicant. As Chapter VII of the NBHCP and the Biological Resources Technical Memorandum indicates, the NBHCP conservation strategy, including a 0.5:1 mitigation ratio, proposed restoration, enhancement, adaptive management, and monitoring programs on reserve sites, as well as the take avoidance and minimization measures specified in the NBHCP, represent the maximum mitigation requirements that can be practically implemented. A mitigation ratio greater than 0.5:1 would compromise the feasibility of Planned Development in the Basin and is not necessary to minimize and mitigate the impacts of take. This study concluded that habitat reserve levels at a 1:1, for example, would substantially compromise the feasibility of Planned Development. As noted above, the purpose of the NBHCP and related incidental take permits is to develop a conservation plan that minimizes and mitigates impacts to the maximum extent possible, while still allowing compatible development to proceed feasibly.

As part of this analysis, the Applicants evaluated whether the level of mitigation and mitigation fees are appropriate for the project. Data provided by Economic and Planning Systems (EPS) was used to define the costs and benefits of implementing additional mitigation, the amount of mitigation provided by other applicants in similar situations, and the abilities of the permittees under the NBHCP. Based on this analysis, the Applicants determined that additional mitigation costs associated with a 1:1 mitigation ratio would

exceed the benefit to be derived from the NBHCP's Operating Conservation Program because, in most instances, the combined effect of the 0.5:1 mitigation ratio in conjunction with the NBHCP's proposed restoration, enhancement, adaptive management, and monitoring programs on the Mitigation Lands, as well as the take avoidance and minimization measures, results in substantially greater mitigation than a mitigation program based on Mitigation Lands at a 1:1 mitigation ratio alone without the avoidance, minimization, and mitigation measures provided by the NBHCP. The Draft EIR/EIS evaluated an alternative that included a mitigation ratio of 1:1 coupled with all other avoidance, minimization, and mitigation measures. In many cases, the environmental effects of a 1:1 ratio are similar to the 0.5:1 ratio. For example, page 4-98 of the Draft EIR/EIS notes that the proposed 1:1 ratio using the 25/50/25 habitat ratios would provide 4,375 acres of managed marsh, which would be substantially in excess of the impact related to the loss of 76 acres of marsh as a result of Planned Development. Thus, in this instance, 1:1 mitigation would provide a substantial excess of one type of habitat far beyond that which would be required to mitigate the impacts of development. In addition, the costs of additional mitigation, including the costs of enhancement, were determined to not be feasible or practicable in the Economic Analysis. Similarly, page 4-99 concludes that impacts to the Swainson's hawk would be generally the same under Alternative 1 (1:1) ratio as those of the NBHCP. The environmental impacts to the Swainson's hawk are less than significant under both the Proposed Action (0.5:1 mitigation ratio) and Alternative 1 (1:1) mitigation ratio.

In identifying the maximum mitigation practicable, the effectiveness of mitigation measures and the feasibility and costs must be considered. Thus, the Economic Analysis compared a variety of scenarios, including a 1:1 mitigation scenario, to determine if the costs of such a mitigation program would be feasible and practicable. The Economic Analysis demonstrated that, as a result of the high cost burden (resulting in part from other development impact fees and infrastructure costs), the costs associated with a 1:1 mitigation ratio in combination with all of other conservation measures included in the NBHCP's Operating Conservation Program could not be feasibly funded by the developers of Planned Development. It is important to note that a substantial proportion of the cost burden associated with the NBHCP scenario for the 1:1 mitigation ratio specifically relates to higher levels of enhancement, restoration, and adaptive management. Many HCPs with a 1:1 mitigation ratio do not include restoration and enhancement; in the Natomas Basin however, restoration of lands in the Basin is biologically preferred to acquisition of Mitigation Lands outside of the Basin (which might be more affordable) or conservation easements on lands in the Basin without restoration and management to support the Covered Species.

Additionally, the Applicants are constrained in their ability to impose mitigation obligations that exceed constitutional and statutory nexus requirements, as further explained on page VII-68 of the NBHCP. Those legal constraints require that mitigation imposed on development bear a rational relationship to the impacts caused by such development on existing habitat, and that it be roughly proportional to the impacts caused by this development. Consequently, the City and Sutter County are limited in their ability to require more mitigation than necessary to mitigate the impacts of incidental take. This additional legal requirement further impacts the feasibility of requiring mitigation at a 1:1 or higher mitigation ratio. For the reasons set forth above as supported by the Economic Analysis and the Biological Resources Technical Memorandum, the Applicants believe that

the NBHCP's Operating Conservation Program represents the mitigation that is the maximum extent practicable that may be imposed.

3.1.2 Master Response 2: Connectivity

Various comments have been received addressing the issue of biological connectivity relative to the giant garter snake. These comments generally focused on the importance of drainage canals and ditches to allow giant garter snake to move between Mitigation Lands and other portions of the Natomas Basin. The primary opportunity for in-Basin connectivity for giant garter snake is the system of canals and ditches that are operated and maintained by RD 1000 and Natomas Mutual (collectively referred to as the Water Agencies). Comments have been received questioning the impact on Basin connectivity of the Water Agencies' decision not to pursue permits under the NBHCP as currently drafted. To respond to these comments, this master response is organized in the following way:

- Overview of NBHCP Requirements for Biological Connectivity;
- Relationship of Planned Development to Mitigation Lands;
- Drainage Canals to be Retained;
- Irrigation Channels to be Retained;
- Effects of Water Agency Participation in the NBHCP;
- Regulatory Restrictions on Canal Closures and Modifications.

In addition to clarifying the NBHCP's approach to ensuring connectivity between Mitigation Lands, text changes have been made to clarify this commitment. The text of these changes is in the Final NBHCP.

3.1.2.1 Overview of NBHCP Requirements for Biological Connectivity

The Draft NBHCP acknowledges the importance of biological connectivity by including specific biological goals and objectives in the NBHCP relevant to providing connectivity. Page I-15 of the Draft NBHCP includes the following as Objective 3:

> Ensure connectivity between TNBC reserves to minimize fragmentation and isolation. Annual evaluations of the success of the NBHCP will focus on TNBC's success in achieving the Plan's goals and objectives, and monitoring data will be collected to facilitate this evaluation.

The NBHCP's emphasis on connectivity between reserves is further defined in Section IV.C.1.d of the NBHCP, which provides various mechanisms for maintaining connectivity measures.

The NBHCP also establishes monitoring requirements to ensure that the goals and objectives of the NBHCP will be achieved. Section VI.E.2.b of the NBHCP establishes that the following analysis will be conducted:

> (4) Annual assessment and identification of canals and ditches which provide GGS habitat connectivity within and between reserves.

3.1.2.2 Relationship of Planned Development to Mitigation Lands

Closing of canals within the Permit Areas of the City and Sutter County is anticipated to occur as Planned Development occurs, and is a Covered Activity for the City and Sutter County. Such closures would reduce connectivity within the planned development areas of the City and Sutter County. The canals and ditches located outside the City and County Permit Areas, however, are those that are the most critical to connectivity between reserves because the Mitigation Lands are located almost exclusively outside the City and County Permit Areas.

The NBHCP includes acquisition guidelines that specify that Mitigation Lands should be separated from urban development. While these guidelines are flexible and TNBC may, with the concurrence of the wildlife agencies, acquire land adjacent to existing and future development, the majority of Mitigation Lands will be acquired in areas well separated from development authorized under the NBHCP. As a result, the impacts of Planned Development on the canals that provide connectivity to Mitigation Lands will be substantially reduced from what would occur in the absence of the provision to separate Mitigation Lands from the areas of Planned Development. The system of both drainage and irrigation channels within the Basin is extensive, and there is no evidence (either in documented plans of the water agencies or in development proposals submitted to the land use agencies) to suggest that canals in the immediate vicinity of Mitigation Lands would be closed either as a result of Planned Development or for any other reason.

Closing of the canals that are located outside the City and County Permit Areas, which are the canals most critical to ensuring connectivity between the Mitigation Lands, is not a circumstance that is likely to occur and there is no indication at this time that the Water Agencies intend to close these canals. Although there is no indication that the Water Agencies will seek to close canals serving the Mitigation Lands, such actions have the potential to occur in the future. If a canal were to be proposed for closure, the Water Agency (or project sponsor for canal closure) would likely be required to comply with the ESA and mitigate impacts under either Section 10 of the ESA. This could be an amendment to the NBHCP if the Water Agencies choose at some future date to seek coverage under the NBHCP, or it could require preparation of a separate HCP or Section 7 Consultation, if federal funds or federal approval is required (as in the case of Section 404 Clean Water Act permits). Under such circumstances, is it expected that the Wildlife Agencies would require appropriate mitigation to maintain the biological viability of the NBHCP (and possibly require MOAs or Memoranda of Understanding [MOUs] with the water agencies) to: (1) preserve key canals; (2) transfer land; or (3) place easements on canals to TNBC. In the event that closure of canals critical to ensuring connectivity is proposed and no such mitigation is required, then TNBC would attempt to acquire the key canal in fee title or secure a conservation easement on the canal, subject to Section IV.C.1.d of the NBHCP.

3.1.2.3 Drainage Canals to be Retained

Existing drainage canals in the Natomas Basin will continue to provide connectivity for the giant garter snake. Figure 17 of the NBHCP identifies drainage channels within the Natomas Basin that are considered likely to be retained for flood control purposes for both existing agricultural uses and for Planned Development. Regardless of the type of uses within the Basin, whether agricultural or urban, major flood control channels are required to convey water through the Basin. As shown on Figure 17 of the NBHCP, major drainage channels

provide connectivity between Sutter County and Sacramento County, with direct connection to major Mitigation Lands within Sutter County's northwest portion of the Basin. In addition to the major flood control channels, Figure 17 also depicts the extensive system of lesser channels that are operated and maintained by the Water Agencies. An additional opportunity for Basin connectivity is the 1-mile Swainson's Hawk Zone that has been excluded from Sutter County's Permit Area. This corridor of land contains numerous drainage and irrigation canals that provide connectivity between Sacramento County and the Mitigation Lands located in Sutter County.

3.1.2.4 Irrigation Channels to be Retained

Similar to the drainage channels, the irrigation channels operated by Natomas Mutual are required to support the existing agricultural uses within the Basin and will be required to serve Mitigation Lands as the reserves continue to develop. Unlike RD 1000, Natomas Mutual is a privately held water company comprised of landowner stockholders. As TNBC acquires Mitigation Lands within the Basin, it will become a major stockholder in Natomas Mutual. TNBC is anticipated to be in a position to encourage practices that enhance canal maintenance and operations that support the biological goals and objectives of the NBHCP, and that favor biological values within the Basin.

Regardless of its direct role in Natomas Mutual, TNBC will require the delivery of water granted under the water rights associated with Mitigation Lands that it acquires. As such, the canal system will continue to provide direct linkages to TNBC as long as surface water is used on Mitigation Lands. In addition to serving Mitigation Lands, Natomas Mutual will continue to provide agricultural irrigation water, thus providing further connectivity between the Mitigation Lands and the surrounding agricultural lands within the Basin.

Another important consideration in evaluating the effects of the Water Agencies' ditch/canal maintenance on connectivity and the continued viability of giant garter snakes within the Natomas Basin is the historic nature of the Water Agencies' operators. Specifically, despite years of canal management in the Natomas Basin by the water agencies, the giant garter snake has adapted to the management practices of the water agencies. There is no evidence that the continuation of regular and historic canal management practices within the Basin will adversely affect the success of the NBHCP Operating Conservation Plan.

3.1.2.5 Effects of Water Agency Participation in the NBHCP

This section responds to comments raised about the following issues:

- The effect on the Applicants' ability to implement the NBHCP's Operation Conservation program if the Water Agencies do not participate; and
- Whether the Water Agencies will choose to participate in the NBHCP in the future.

It is important to note that, as currently proposed, the NBHCP includes provisions for the Water Agencies to receive permits for take resulting from normal canal maintenance practices (see Section V.C of the NBHCP), and these provisions have been analyzed in the EIR/EIS (see Section 1.2.1 of the EIR/EIS and Comment Letter I3 for a discussion of the historical involvement of the Water Agencies in this NBHCP, and their decision not to seek ITPs at this time).

Effect on NBHCP of Water Agencies' Nonparticipation

As noted above, the Water Agencies have decided not to participate in the NBHCP at this time. Non-participation of the Water Agencies would result in neither closure of key canals or the inability to implement the NBHCP (see the discussion of Independent Implementation throughout Chapter 4 of the EIR/EIS). The Water Agencies' decision not to participate in the NBHCP would not adversely affect the ability to maintain connectivity between Mitigation Lands (see Section 3.1.2.3 and Section 3.1.2.4 of this Final EIR/EIS). Canal closure by the Water Agencies is not a Covered Activity under the NBHCP and, as such, no take coverage is granted by the NBHCP for such an activity. As a result, any canal closures by the Water Agencies that affect giant garter snake or other species would be subject to separate review and mitigation under the ESA and CESA.

The canal maintenance guidelines in the NBHCP generally reflect current maintenance practices used by the Water Agencies and would not result in substantial changes to water agencies' practices, such as reconfiguring canals or guaranteeing that canals remain in service. As such, participation of the Water Agencies in the NBHCP, under the provisions as currently proposed, would not substantially affect the Water Agencies existing operations and maintenance activities and, therefore, the likelihood that connectivity within the Basin will be maintained is not compromised by the Water Agencies' decision not to participate in the NBHCP at this time.

In addition, the EIR/EIS contains an analysis of the effects of independent implementation of the NBHCP (see discussion throughout Chapter 4 of the EIR/EIS) that concludes that the Water Agencies' decision not to participate at this time in the NBHCP would not result in either: (1) a significant effect to giant garter snake from closure of canals and ditches important to maintaining connectivity; or (2) an inability of the remaining Applicants to implement the NBHCP in a way that meets the biological goals and objectives in Section I.C of the NBHCP.

Water Agencies' Possible Future Participation in NBHCP

The NBHCP provides a framework through which the Water Agencies may seek incidental take permits (Section I.K). Although the Water Agencies have chosen not to participate in the NBHCP, as currently drafted, the NBHCP has provided a framework for the Water Agencies to participate in the future. This framework includes the definition of various activities that could be covered, which are primarily activities related to take of Covered Species resulting from canal management. To receive consideration for take coverage, the NBHCP would require the water agencies to follow guidelines for canal maintenance. Additionally, substantial analysis of the effects of the Water Agencies' management activities has been completed through the NBHCP and the associated EIR/EIS (see Chapter VII of the NBHCVP and Chapter 4 of the EIR/EIS). This framework provides the Water Agencies the opportunity to move forward expeditiously if they choose to participate in the future. Also see Responses to Comments I3-1 and I3-2.

3.1.2.6 Regulatory Restrictions on Canal Closures and Modifications

As noted above, the NBHCP would not authorize the Water Agencies to dewater and/or close ditches or canals within the Natomas Basin. As such, the Water Agencies would likely be required to address the impacts of canal closure under a CEQA and/or NEPA analysis, and would likely be required to secure permits from regulatory agencies including, but not

limited to, CDFG and the U.S. Army Corps of Engineers. Any impacts of canal closure on either listed species in general or on the viability of NBHCP Mitigation Lands would be analyzed and mitigated through such consultations.

3.1.2.7 Revisions to the NBHCP

In addition to the analysis conducted in the NBHCP and the EIR/EIS relevant to the Water Agencies' decision not to participate, several revisions have been made to the NBHCP relevant to clarification of the water agencies' role in connectivity of Mitigation Lands. These changes are in the Final NBHCP and are summarized in Section 2.1 of this Final EIR/EIS. For the complete text of the change, the reader is referred to the cited sections of the Final NBHCP.

3.1.3 Master Response 3: Joint Vision

Several commentors have requested further clarification regarding the City of Sacramento/Sacramento County Joint Vision. Commentors assert that the City of Sacramento recently released the proposed "Joint Vision for Natomas," which establishes a process for expanding the City's Sphere of Influence (SOI) to include up to 10,000 acres for future annexation and urban growth north of Elkhorn to the Sacramento County line, and between MAP and the NEMDC. Commentors believe this Joint Vision effort would result in the urban development of up to 10,000 additional acres in the Basin. Commentors suggest that the cumulative impacts of the potential Joint Vision development should be considered in conjunction with the 17,500 acres of Planned Development covered by the NBHCP.

Commentors are referred to Master Response 4 (Cumulative Impacts) for an overview of NEPA, CEQA, ESA, and CESA requirements related to the treatment of probable future projects and planning efforts for purposes of evaluating cumulative impacts.

3.1.3.1 History of Joint Vision

The Joint Vision is a collaborative, regional growth approach for the area north and west of the City's North Natomas Community Plan Area in the Natomas Basin being undertaken by the City and County of Sacramento. Over the last several decades, both the City and Sacramento County have received requests to allow urban development in the Natomas Basin. Some of these requests resulted in the City's and Sacramento County's review and approval of several development plans within the Natomas Basin. In 1986, the City adopted the North Natomas Community Plan, and in 1988, it updated the South Natomas Community Plan. The northern edge of the North Natomas Community Plan, co-terminus with the City's Sphere of Influence, is Elkhorn Boulevard. The western edge of the North and South Natomas Community Plans, co-terminus with the City's SOI, is the City limit line. The City limit line generally follows Interstate 80 in South Natomas and the West Drain in North Natomas. Also, in the early 1990s, the County of Sacramento updated its General Plan and established an Urban Services Boundary, which limits the areas which may obtain utilities and services. The Urban Services Boundary prohibits urban development within a roughly 6,500-acre area in northwestern Sacramento County. The Urban Services Boundary is generally co-terminus with the City limit line and the City's SOI.

The local land use agencies extensively evaluated the potential for development in the Natomas Basin, both before and after the community and general plans were adopted for

the following reasons: (1) a flood in 1987 tested the flood protection in the Basin and raised concerns about the wisdom of allowing development (people and property) in the Basin; (2) several threatened and endangered species inhabit the Basin; and (3) many citizens in Sacramento desired permanent protection of Open Space in the Basin to provide for quality of life for the region's residents. The flood resulted in a revision to the region's Federal Emergency Management Administration's (FEMA's) flood zone designation, including a Special Legislation for the area. Once the flood zone was downgraded, the City and the region worked hard to improve the flood protection in the Basin and elsewhere in the Sacramento area. As part of this effort, the Sacramento Area Flood Control Agency (SAFCA) implemented the Local Area Project, designed to strengthen the levees along the Sacramento River and enhance flood protection in the Natomas Basin. This flood control project required approvals from the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act. One of the conditions of the Corps 404 Permit for the Local Area Project required that a Habitat Mitigation Plan be approved.

Also, drainage facilities were designed to remove the development area from the internal floodplain-overtopping of the internal drains within the Basin. To fund the implementation of these flood control improvements, the City formed Community Facilities District No. 97-01 and bonds were issued to build the needed improvements. In addition to the public improvements, developers within the Basin were required to provide their own stormwater drainage improvements to convey runoff from their developed area to the drains and out to the river. To enable urban development to proceed, basins and year-round lakes providing flood protection and storm drainage were designed to mimic the lakes and marshes that were located in the Basin prior to reclamation efforts in the 1910s.

To comply with the conditions of the Corps Section 404 permit, SAFCA initially embarked on a consensus-building approach to drafting a Habitat Conservation Plan. Eventually, the land use agency permittees completed the process, and on December 31, 1997, a Habitat Conservation Plan was approved and an Incidental Take Permit was issued to the City of Sacramento, the first of several future permittees.

During the preparation of the 1997 NBHCP, several developers proposed specific development projects outside of the City's SOI and the County's Urban Services Boundary, to facilitate development to the north and west of the City's urban limits. A discussion of these efforts is described below in Master Response 4 (Cumulative Impacts).

Neither the 1997 NBHCP nor the revised NBHCP contemplates incidental take coverage for any of these development proposals outside of the City's SOI and County's Urban Services Boundary. To provide a comprehensive response to the specific development requests identified below, and other future development requests that may arise, the County of Sacramento commenced a comprehensive annexation study. As part of this process, Sacramento County issued a draft General Plan Amendment and Comprehensive Annexation Plan and associated EIR in November 2000. This plan, however, was never adopted. Once again, development outside of the City, Sutter County, and MAP Permit Areas was deferred indefinitely.

Subsequently, the City engaged Sacramento County in a dialogue to develop a joint process representing a joint City and Sacramento County vision for responding to development and annexation requests. This effort was yet another attempt to address the concerns deferred by

the unadopted Comprehensive Annexation Plan. This discussion resulted in the preparation and adoption of a MOU for the Joint Vision by the City Council of the City of Sacramento and Sacramento County Board of Supervisors on December 10, 2002 (Appendix G of this Final EIR/EIS), after the Draft NBHCP and EIR/EIS were released for public review and comment. The MOU identifies certain principles designed to guide regional growth in the Natomas Basin, the goals of the endeavor, and the economic implications of growth. The goals of the Joint Vision are to: (1) enhance quality of life for the region's citizens; (2) preserve permanent Open Space; (3) preserve habitat for endangered and other special status species; (4) protect the airport from urban encroachment; and (5) preserve farmland. The Joint Vision process also is envisioned to provide certain principles intended to guide further discussions regarding the City's and Sacramento County's respective land use roles and understandings regarding future tax sharing arrangements [See Joint Vision MOU Letter to Cay Goude and Larry Eng dated December 5, 2002].

The MOU currently includes a map that identifies a 10,000-acre SOI area where the City's existing SOI could be expanded to enable future development and an Area of Concern (AOC) where permanent Open Space may be established. The Joint Vision identifies the SOI area as the area within which the acreage and location for future growth would be determined based on further planning efforts, biological resource evaluations, and environmental analyses. The City and Sacramento County also desire the permanent protection of Open Space in the Basin. Thus, the AOC identifies that area in which land or easements could be acquired at a minimum 1:1 ratio pending further evaluations. No development is anticipated within the AOC by the Joint Vision MOU (See Appendix G of this Final EIR/EIS).

The MOU effort is modeled after the comprehensive approach to regional planning regarding establishment of the American River Parkway. Here, the City took the lead on a comprehensive planning effort that resulted in approvals by the City of Sacramento, Sacramento County, and the State of California of the American River Parkway Plan. To develop in the parkway or otherwise modify the parkway plan, all three entities must approve the modification. Such strict restrictions on modifying the parkway plan have resulted in a long-term plan that is not changed easily by the decisions made by a single jurisdiction. Similarly, the City and Sacramento County contemplate a future joint planning process for the Natomas Basin that would require both parties to consider future development proposals within the Basin.

3.1.3.2 Impact of Joint Vision on Future Development in the Natomas Basin

Commentors request that the NBHCP and EIR/EIS evaluate the cumulative impacts of up to 27,500 acres of new development consisting of the 17,500 acres of Planned Development and 10,000 acres of development under the Joint Vision. Additionally, commentors suggest that the Joint Vision process would affect the feasibility and implementation of the NBHCP conservation program. Some commentors also believe that development within the Joint Vision area may jeopardize the survival and recovery of the giant garter snake. Commentors also indicate that urban impacts of development permitted within the SOI area, in combination with neighboring Sutter County development, substantially would diminish the biological value of the existing Mitigation Lands within the SOI area. Commentors also question whether the Joint Vision MOU will allow Sacramento County to permit urban development within the AOC.

As described above, the Joint Vision effort is intended to provide a comprehensive process for the City and Sacramento County to consider future proposals for annexation and development. Development of 10,000 acres or any portion of the Joint Vision planning area, however, is not proposed at this time and the outcome of the Joint Vision planning effort remains unknown. Many existing constraints limit the amount of development which may be considered outside of the City's existing SOI. Key constraints include the 100-year floodplain, an extensive system of canals which provides giant garter snake habitat, and the City and Sacramento County's desire to establish a permanent community separator within the SOI area. Due to all of these constraints, this planning effort may result in consideration of substantially less than 10,000 acres of development. Consequently, while landowners may attempt to seek approval of urban development outside of the City's SOI and the County's urban growth boundary, the likelihood any development will proceed depends upon extensive planning and analyses which will determine the outcome of the Joint Vision effort. Consequently, it is speculative to predict the extent to which the City's SOI will be expanded or the amount of urban development beyond the 17,500 acres of Planned Development.

Any urban development which may be contemplated through future Joint Vision planning efforts is not covered by the revised NBHCP. As stated in the revised NBHCP, development beyond 17,500 acres would constitute a significant departure from the Operating Conservation Program established in the NBHCP. As such, no development outside of the 17,500 acres could or will be approved absent full compliance with the federal and state Endangered Species Acts and with NEPA and CEQA. No development outside of the 17,500 acres could or will occur without additional biological resource evaluations in the Basin. In fact, before any development can occur associated with the Joint Vision, many other tasks and approvals must be completed, including among other things: (1) land use planning; (2) environmental review, including a thorough biological resources evaluation; (3) compliance with all local, state, and federal laws; and (4) approval of the plan by both the City and Sacramento County, as well as Local Agency Formation Commission (LAFCO).

Moreover, the City and Sacramento County recently committed in the Joint Vision MOU to not allow development to occur in the Basin in excess of the Planned Development without (i) conducting a full biological evaluation of the impacts of any new development proposals, and (ii) fully evaluating the effects of additional development on the effectiveness of the revised NBHCP. In the revised NBHCP and the Implementation Agreement, the City also commits that it will not increase the allowable development area beyond the Permit Area established in the revised NBHCP without conducting thorough and complete biological evaluations. If after completion of the necessary biological resource evaluations, technical analyses and environmental review, the City and County decide to approve future development beyond the 17,500 acres of Planned Development, then the City and County, in conjunction with USFWS and CDFG will evaluate the effectiveness of the NBHCP as set forth in Chapter VI of the revised NBHCP, and either will:

- prepare a separate HCP to support issuance of an incidental take permit for the additional development beyond the 17,500 acres or outside of the City's Permit Area;
- prepare an amendment or revision to the NBHCP to amend the adopted conservation strategy to cover the additional development beyond the 17,500 acres or outside of the City's Permit Area; or

- prepare an amendment or revision to the NBHCP to authorize the transfer of development from within the City or Sutter County's Permit Area to an area within the Joint Vision boundaries.

In response to concerns that development within the Joint Vision area may jeopardize the survival and recovery of giant garter snake, that is precisely the reason that further biological evaluations must be performed in the Joint Vision's SOI study area before the SOI would be expanded and development allowed to proceed. However, at this time, details regarding the land use type, location, extent, and amount of development are unknown, and thus, the agencies are unable to determine the extent of any impacts associated with future development. Moreover, the City and Sacramento County would evaluate through the Joint Vision planning process, cumulative effects associated with development permitted within a future SOI area, in combination with the 17,500 acres of Planned Development covered by the NBHCP and any neighboring Sutter County development.

3.1.3.3 Impact of Joint Vision on Mitigation Lands

Commentors express concern that it is unlikely that TNBC will be able to acquire Mitigation Lands within the Joint Vision area. Commentors suggest that the Joint Vision MOU will have an immediate impact on implementation of the NBHCP because of the impacts to valuable giant garter snake habitat within this area.

The NBHCP contemplates incidental take coverage for 17,500 acres of the Natomas Basin. Over 26,000 acres currently remain available within the Natomas Basin for their potential acquisition as Mitigation Lands. If the NBHCP is approved and incidental take permits are issued, TNBC will consider these areas as potential Mitigation Lands, to the extent landowners are willing to sell their property. The effectiveness of the NBHCP conservation strategy depends on the availability of such lands, as well as the availability of lands outside the Basin and the NBHCP contemplates that these lands will continue to be available for Mitigation Land acquisition. As such, in the event that the Joint Vision planning process were to result in a change in the City's SOI, this change would be viewed as a change in the NBHCP Operating Conservation Program and would require an amendment to the NBHCP or a separate HCP for the development of such areas.

Although the Joint Vision planning process identifies an Area of Concern in which the City and Sutter County intend to preserve open space, the actual amount of Open Space area has not been defined and the City and Sutter County have not yet established an Open Space program. The Joint Vision effort intends to conduct extensive planning and environmental analyses to determine the extent of open space preservation in the event the City's SOI is expanded. At this time, however, all of the lands outside of the 17,500-acre Permit Areas, are anticipated to remain in their existing agricultural, open space and limited development conditions as described further in Chapters II and III of the NBHCP and Chapter 3 of the Draft EIR/EIS. Since there are no new development efforts contemplated by the City at this time outside of its adopted SOI, the adopted land use plans do not authorize such development, and the location of any adjustments to the SOI have not been determined through the Joint Vision effort, it is speculative at best to assume that 10,000 acres of future development will occur in the Basin outside of the 17,500-acre Permit Areas. Consequently, lands outside of the Permit Areas remain available for the foreseeable future as potential sites for Mitigation Land acquisition.

The Joint Vision planning process also would involve comprehensive biological resource evaluations to determine the nature and extent of effects on existing habitat, including habitat afforded by TNBC Mitigation Lands. This evaluation would be necessary to determine the extent of avoidance, mitigation, and minimization measures required to offset any impacts caused by development authorized by the Joint Vision.

3.1.3.5 Treatment of the Joint Vision in the NBHCP and EIS/EIR Cumulative Analysis

Commentors are referred to Master Response 4 (Cumulative Impacts) for a discussion of the NBHCP's and EIR/EIS's treatment of the cumulative effects associated with the Joint Vision planning effort under ESA, CESA, NEPA, and CEQA.

3.1.4 Master Response 4: Cumulative Impacts

Several comment letters raised questions about the approach to, and analysis of cumulative impacts in the NBHCP and EIR/EIS. To be responsive to these issues, this master response is organized in the following way:

- Scope of cumulative impacts analysis for the NBHCP and EIR/EIS, including the treatment of 17,500 acres of Planned Development in the NBHCP and Draft EIR/EIS cumulative effects analysis (Section 3.1.4.1);
- Regulatory framework for cumulative impacts assessment under ESA, CESA, NEPA, and CEQA (Section 3.1.4.2);
- Development in excess of 17,500 acres, including future annexation, other development, Joint Vision, and flood control projects (Section 3.1.4.3);
- Effect on the NBHCP of future development outside the Permit Areas (Section 3.1.4.4);
- Inconsistencies between the NBHCP and EIR/EIS discussion of cumulative effects (Section 3.1.4.5).

3.1.4.1 Cumulative Impacts Assessment under the ESA and CESA

This section presents the regulatory framework for evaluating cumulative impacts under the ESA, CESA, NEPA, and CEQA.

Federal Endangered Species Act

Two provisions under the ESA, Sections 7 and 10, govern the analysis of the effects of the Proposed Action. Under Section 10 of the ESA, the USFWS is required to determine the impact that likely will result from the incidental take of covered species [50 CFR § 17.32(b)((1)(C)]. An incidental take permit authorizes incidental take, not the activities that result in take. As such, the effects analysis under Section 10 focuses on the extent and amount of take associated with granting incidental take coverage for activities contemplated by the local land use agency. As part of its review of the NBHCP, the USFWS also is required to conduct an internal Section 7 consultation to determine whether the Proposed Action (i.e., issuance of the incidental take permits) will result in jeopardy to federally listed threatened or endangered species, or the destruction or adverse modification of critical habitat (50 CFR § 402.10). As part of this consultation process the federal action agency (in this case, USFWS) is required to consider cumulative effects. Under Section 7, cumulative effects:

> include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the Proposed Action are not considered in this section because they require separate consultation pursuant to Section 7 of the Act.

Future federal actions requiring separate consultation (i.e., unrelated to the Proposed Action) are not considered in the cumulative effects analysis. 50 CFR § 402.02 ; HCP Handbook, p. 4-31. Future non-federal actions are, however, included in a cumulative analysis. Past and present impacts of non-federal actions are part of the environmental baseline. 50 CFR § 402.02.

Projects included in a cumulative effects analysis must be "reasonably certain to occur." Projects considered reasonably certain to occur may include, among other factors, approval of the action by state, tribal, or local agencies or governments (e.g., permits); indications by state, tribal, or local agencies or governments that granting authority for the action is imminent; and the project sponsor's assurances that the action will proceed. The more discretion remaining to be exercised by a state, tribal, or local agency or government before a proposed non-federal action can proceed, the less there is reasonable certainty the project will be authorized. That is, the ESA does not require an evaluation of speculative non-federal actions that may never be implemented. By the same token, "reasonably certain to occur" does not require a guarantee that the action will, in fact, occur. USFWS is required to consider economic, administrative, and legal hurdles that must be overcome in order for a non-federal action to proceed.

In the context of a Section 7 consultation within a larger Section 10(a) planning area, the Section 7 Consultation Handbook advises that non-federal proposals for development in the HCP are considered cumulative effects for that planning area until the Section 7 consultation for the Section 10(a) permit is completed. At that time, the effects of the non-federal proposals become part of the environmental baseline for future consultations (HCP Handbook, p. 4-32 —33).

California Endangered Species Act

There are no statutory or regulatory provisions expressly requiring an analysis of cumulative effects under CESA related to the issuance of a Section 2081 Permit. Nonetheless, CDFG must consider whether issuance of an incidental take permit would jeopardize the continued existence of a species. As part of this analysis, CDFG evaluates the adverse impacts of the take in light of known population trends, known threats to the species, and reasonably foreseeable impacts on the species from other related projects and activities (14 Cal. Code Regs. § 783.2(a)(7)).

Consistent with the Section 10 regulations, the NBHCP conservation strategy is based on an analysis of the combined effects of past, present, and future development in the Natomas Basin. To determine the extent and amount of take that may be authorized under the NBHCP's Operating Conservation Program, the Draft NBHCP considers the amount of development that has occurred in the Natomas Basin, and the amount of development that could occur based on adopted land use plans. Consistent with the Section 7 regulations, future federal actions requiring separate consultation (i.e., unrelated to the Proposed Action) are not considered in the cumulative effects analysis. Future federal actions that may be required for Planned Development are, however, identified in the NBHCP. Vernal pool

species-related conservation measures are included in the NBHCP in order to provide avoidance, mitigation, and minimization measures for species-related effects. These actions specifically include Covered Activities that may require a Section 404 Permit for the fill of waters of the U.S. subject to Clean Water Act jurisdiction. Future federal actions related to water supply and flood control/drainage improvements as described in Section 4.1.2.3 of the Draft EIR/EIS are not included in the cumulative analysis for Section 7 purposes because they involve federal actions.

Future non-federal actions are included in the NBHCP cumulative analysis as explained further below. Past and present impacts of non-federal actions are part of the environmental baseline or included in the effects of the NBHCP and incidental take permits as described more specifically below.

Scope of NBHCP Analysis.
To determine the extent and amount of take that may be authorized under the NBHCP's Operating Conservation Program, the NBHCP considers: (1) the amount of development that has occurred in the Natomas Basin; and (2) the maximum amount of development that could occur based on adopted land use plans. Consistent with the Section 7 regulations, future federal actions requiring separate consultation (i.e., unrelated to the Proposed Action) were not considered in the cumulative effects analysis. Future non-federal actions are included in the NBHCP cumulative analysis.

With respect to *past* development, the Draft NBHCP describes the development that occurred prior to 1997, when the USFWS approved the original NBHCP and explains that of the 53,537 acre Natomas Basin, approximately 7,267 acres were already developed in 1997 (Draft NBHCP, pages III-3 — 11, IV-1). Thus, approximately 46,270 acres of undeveloped and agricultural land remained in the Basin as of 1997. This past development is included in the baseline conditions for purposes of evaluating the effects of the NBHCP on Covered Species under ESA and CESA.

To account for the effects of *present* development, the Draft NBHCP describes the development that occurred between December 1997 and December 2001 (the period of time between adoption of the original NBHCP and preparation of the revised NBHCP). In this regard, the Draft NBHCP explains that between December 1997 and December 2001, urbanization occurred on approximately 3,787 acres in the Basin and provides a detailed description of this additional development (Draft NBHCP, pages III-6 - 11). The 3,787 acres of present development are included within the 17,500 acres of Planned Development described below. As of December 2002, 4,413 acres have been developed (see Response to Comment O1-2).

As required by the ESA consultation regulations, the NBHCP includes future projects in its cumulative analysis that are "reasonably certain to occur." To account for the effects of *future* development covered by the NBHCP, the NBHCP relies on the adopted general plans of the City, Sutter County, and Sacramento County as a reasonable basis for predicting the extent, amount, and location of future development. The NBHCP also considers the level of development contemplated in adopted community plans and specific plans in order to further refine the determination of future development covered by the plan. Based on these adopted plans, the NBHCP contemplates the development of up to 17,500 acres of Planned Development in the Basin. The NBHCP explains that adopted general plans for each land use

permittee indicate that the total acreage potentially to be developed in the Basin is 13,533 to 20,033 acres, depending primarily on the extent of urbanization in Sutter County. Although the adopted general plans include a range of development, the NBHCP and associated incidental take permits limit the amount of development to 17,500 acres for which incidental take coverage may be obtained under the NBHCP because development in Sutter County's Industrial-Commercial Reserve over and above 7,467 acres is not foreseeable during the permit term. As explained in the NBHCP, the 17,500 acres of Planned Development consist of 8,050 acres of development in the City, 7,467 acres of development in Sutter County, and 1,983 acres for Metro Air Park in Sacramento County (Draft NBHCP, pages III-1 —III-3, III-12 —III-15). The development covered by the NBHCP, based on the adopted general and specific plans noted above, is evaluated as part of the Proposed Action for which incidental take is being sought. The cumulative effects of the Proposed Action therefore consist of the effects of the Planned Development considered in conjunction with the past and present impacts of existing development and the impacts of any non-federal future development in the Basin that is "reasonably certain to occur" beyond the 17, 500 acres covered by the NBHCP.

The NBHCP covers future development of the Natomas Basin that is reasonably foreseeable, and this reasonable foreseeable development is also the development for which the NBHCP seeks coverage for incidental take. This development consists of the 17,500 acres of future Planned Development described above, in conjunction with any roadways and other infrastructure located within the City and Sutter County's Permit Areas necessary to serve this Planned Development (see Draft NBHCP Section I.N., Covered Activities). Thus, the NBHCP covers the cumulative effects of development within the City, Sutter County, and Sacramento County portion of the Basin to the extent such development is authorized within the Plan Area. Future development in the Natomas Basin beyond the amount of development covered by the NBHCP, however, is not considered "reasonably certain to occur" or "reasonably foreseeable."

The approach used to satisfy ESA requirements also satisfies the requirements under CESA. That is, the NBHCP considered in its evaluation of effects of incidental take due to the Covered Activities, and the reasonably foreseeable impacts on the species from other related projects and activities. In this regard, the NBHCP evaluated both the individual effects of development projects proceeding within each Permit Area, as well as the combined effects of all 17,500 acres of planned development occurring within the Plan Area. In other words, the NBHCP Technical Memoranda and biological resources evaluations considered the combined effects of each development project within each specific Permit Area (e.g., City of Sacramento) and among all of the Permit Areas (i.e., City, Sutter County, water agencies) and evaluated these impacts in conjunction with past and present development. Chapter VII of the NBHCP contains a summary of effects of take of each Covered Species associated with development within each Permit Area individually and generally. The Draft EIS/EIR acknowledged that other development within an identified area under consideration for annexation within the Basin may contribute to cumulative impacts to resources within the Natomas Basin. However, because there are no specific development proposals under consideration, the impacts of such development were determined to be speculative, as discussed further below.

3.1.4.2 Cumulative Effects Under NEPA and CEQA

National Environmental Policy Act

Under NEPA, an EIS is required to conduct an analysis of cumulative impacts (40 CFR 1508.8) Under NEPA, the USFWS evaluates direct, indirect, and cumulative effects (Draft Fish and Wildlife Service Manual Part 550, § 2.4). According to the CEQ Guidelines (40 CFR 1508.7), a cumulative impact is the:

> ... impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

California Environmental Quality Act

Under CEQA an EIR is required to conduct an analysis of cumulative impacts (14 Cal. Code Regs. 15130(a). Pursuant to the CEQA Guidelines, the CEQA Lead Agencies are required to evaluate the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Under CEQA, an EIR is required to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable (14 Cal. Code Regs. 15130(a)). Under CEQA, as with NEPA, cumulative impacts are defined as:

> "Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> (a) The individual effects may be changes resulting from a single project or a number of separate projects.
>
> (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (14 Cal. Code Regs. 15355).

A cumulative impact consists of an impact which is created as a result of the combination of the proposed project together with other projects causing related impacts. 14 Cal. Code Regs. 15355. CEQA Guidelines Section 15130 states that an adequate discussion of significant cumulative impacts must include either: (1) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or (2) a summary of projections contained in an adopted General Plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

Section 15130 further states that it is appropriate for probable future projects to be limited to those:

> ...requiring an agency approval for an application which has been received at the time the notice of preparation is released, unless abandoned by the

applicant; projects included in an adopted capital improvements program, general plan, regional transportation plan, or other similar plan; projects included in a summary of projections of projects (or development areas designated) in a general plan or a similar plan; projects anticipated as later phase of a previously approved project (e.g. a subdivision); or those public agency projects for which money has been budgeted.

Scope of EIR/EIS Analysis

The EIR/EIS contains an analysis of the combined effects of past, present, and future development in the Natomas Basin, in accordance with NEPA and CEQA. Past and present impacts of non-federal actions are part of the environmental baseline or included in the analysis of the Proposed Action evaluated in the EIR/EIS. The EIR/EIS considers all of the applicable existing long-range planning documents, as discussed in Section 4.1.2.3 of the EIR/EIS. Also explained in the EIR/EIS, the total amount of Planned Development covered by the NBHCP is limited to the 17,500 acres evaluated in the EIR/EIS (see Section 2.2.1 and Section 4.1.2.3) because this is the amount of development authorized in the Natomas Basin under adopted City, Sutter County, and Sacramento County land use plans. In other words, 17,500 acres represents the level of development considered reasonably foreseeable in the Basin.

For the Covered Activity of Planned Development, this equates to the 17,500 acres of approved development in the Natomas Basin (see Appendix C of the Draft EIR/EIS for a detailed summary of the effects of the Planned Development in the Natomas Basin). Any potential for development outside of those 17,500 acres is not reasonable or foreseeable in consideration of NEPA and CEQA cumulative impact assessment criteria (see Section 3.1.4.3 below). Other specific development approval requests for lands outside of the City, Sutter County, and MAP Permit Areas are not reasonably foreseeable under NEPA and CEQA. Therefore, the analysis in the NBHCP and Draft EIR/EIS includes the effects of "planned, proposed, and projected activities throughout the Basin" as requested by the commentors and consistent with the requirements of NEPA, CEQA, ESA, and CESA.

3.1.4.3 Development in Excess of 17,500 Acres of Planned Development

Several comments asserted that the EIR/EIS considered only other closely related regional conservation activities and indicated that the cumulative effects of Planned Development are not assessed in the EIR/EIS. In response to the request to analyze impacts of the 17,500 acres of Planned Development, it is important to note that the 17,500 acres of Planned Development represents the extent of approved development in the Basin (i.e., the NBHCP is seeking coverage for the extent of approved urban development in the Natomas Basin). Therefore, the Draft EIR/EIS contains an analysis of the combined effects of past, present, and future development in the Natomas Basin in accordance with NEPA and CEQA.

Section 4.1.2 of the EIR/EIS (and Section 3.1.4.1 and 3.1.4.2 of this Final EIR/EIS) presents the requirements for conducting cumulative impact assessments, the specific actions that are analyzed in the cumulative impact analysis for the Proposed Action, and other potential long-term projects that have the potential to occur in the Natomas Basin at some future date. As discussed in Section 4.1.2 of the EIR/EIS, the incremental impacts of past, present, and reasonably foreseeable actions were evaluated. A review of actions that met these criteria resulted in consideration of actions relevant to management of state and federal lands, the Cal FED Bay Delta Program, and the San Joaquin County Multi-species Conservation Plan.

Several commentors have requested that other proposed development in the Basin be considered in the evaluation of cumulative impacts.

As discussed above (Section 3.1.3.2 of this Final EIR/EIS), past and present impacts of non-federal actions are part of the environmental baseline or included in the analysis of the Proposed Action evaluated in the Draft EIR/EIS. In other words, the 17,500 acres of Planned Development represents the level of development considered reasonably foreseeable in the Basin, and other non-federal actions were considered (and are discussed) in the EIR/EIS, but they do not meet the NEPA and CEQA criteria established in this EIR/EIS for inclusion as a cumulative action. With respect to the treatment of reasonably foreseeable development under NEPA and CEQA, the EIR/EIS discusses and presents the prior analyses of the effects of Covered Activities based on the prior environmental review conducted for the adoption of the land use plans and associated development entitlements (Section 4.1.3 of the EIR/EIS). As the EIR/EIS explains, based on adopted land use plans, Planned Development of up to 17,500 acres may occur within the Natomas Basin over the term of the 50-year incidental take permits (ITPs).

As noted on page 4-10 of the Draft EIR/EIS, direct, indirect, and cumulative impacts associated with the construction of Planned Development have been evaluated in both previously certified and in draft environmental documents prepared by the City of Sacramento and Sutter County. As discussed on page 4-11 of the Draft EIR/EIS, the impacts (including direct, indirect, and cumulative impacts) of the Planned Development are summarized both in the individual resource sections and in Appendix C of the EIR/EIS. In addition to the detailed listing of the impacts of Planned Development in Appendix C, cumulative impacts are specifically addressed in several places in the EIR/EIS. As noted in Section 4.1.2.1 (page 4-4 of the EIR/EIS), "Potential cumulative effects are assessed within the separate resource sections in this chapter, and are presented at the end of the individual resource sections." This analysis is conducted throughout the applicable resource sections of Chapter 4. To clarify the rationale used in the EIR/EIS for identifying past, present, and reasonably foreseeable future to include in the cumulative impact analysis, actions to text revisions to the first and second paragraphs in Section 4.1.2.2 of the Draft EIR/EIS are provided in Chapter 2 of this Final EIR/EIS.

Presented below are discussions of the future annexation, other urban development, and flood control projects.

Potential for Future Annexation

Several commentors are concerned that the NBHCP arbitrarily limits the City's ability to annex lands outside of the City's Permit Area. Other comments suggest that future development proposals not included within the 17,500 acres of Planned Development should be able to proceed in reliance on the Draft NBHCP and the City's ITPs. Commentors also request that the NBHCP and EIR/EIS include an analysis of reasonably foreseeable development in the Natomas Basin. Some commentors suggested that the following projects be included in the cumulative analysis as reasonably foreseeable development: specific annexation and development requests; Joint Vision; County Airport intended terminal expansion and third runway on up to 800 acres; construction of new or expanded highway, drainage, flood control, and other infrastructure in the Basin; proposed levee improvements; and new development in Sacramento County.

As discussed above in Sections 3.1.4.1 and 3.1.4.2, the NBHCP covers future development of the Natomas Basin that is reasonably foreseeable. Future development in the Natomas Basin beyond the amount of development covered by the NBHCP, however, is not considered "reasonably certain to occur" or "reasonably foreseeable." With the exception of one area located within the unincorporated Sacramento County portion of the Basin (i.e., the panhandle), development beyond the levels of authorized development within each Permit Area are considered speculative because the adopted City and Sutter County land use plans (i.e., North Natomas and South Natomas Community Plans, Sutter County General Plan and South Sutter County Specific Plan) do not authorize any additional development at this time. The area known as the panhandle always has been included in the North Natomas Community Plan. Because approved land use plans contemplated annexation of this area, the NBHCP includes the panhandle annexation area as part of the City's authorized development. However, if the City were to obtain ITPs for its authorized development, the permits would not apply to the panhandle area unless and until the area is annexed to the City (Draft NBHCP, p. III-15). This is the only annexation area that may be covered by the NBHCP and associated ITPs.

By contrast, although the NBHCP acknowledges that several landowners of property within the Basin have attempted to seek annexation of their properties to the City to enable future urban development, those annexation requests are not covered by the NBHCP because such annexation and future urban development requests have not been approved either by the LAFCO or the City (Draft NBHCP, page II-15). Moreover, urban development in areas located outside of the Permit Areas is ill-defined and considered speculative because: (1) these areas are not planned for urban development under adopted land use plans; (2) these areas are located outside of the City of Sacramento's SOI, the City of Sacramento city limits, and the Sacramento County's Urban Services Boundary; (3) no urban services are available to serve development; or (4) other significant legal and planning hurdles must be overcome before development could proceed.

Other Urban Development

Several comments asserted that urban development (other than the Planned Development of 17,500 acres) should be included in the EIR/EIS as actions subject to cumulative analysis under NEPA and CEQA. Specific comments request that this analysis include the Joint Vision planning effort that may be implemented at some future date.

In reference to NEPA compliance with cumulative impacts analysis, the comments state that the EIR/EIS analysis is insufficient to comply with 40 CFR Section 1508.7 because potential unknown future development should be considered reasonably foreseeable. The EIR/EIS approach to identifying actions to consider as reasonably foreseeable is consistent with the NEPA CEQ regulations and USEPA guidance (USEPA, Office of Federal Activities, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*, EPA 315-R-99-002/May 1999). (Also see Section 3.1.4.2, above). Specifically, one of the criteria for identification of applicable actions for a cumulative assessment is the likelihood that a project will occur. The guidance further states that the best indicator of whether a project is reasonably foreseeable is whether final approval has been obtained or if the project is imminent, and that the long-range planning of government agencies should also be considered. The EIR/EIS considers all of the applicable existing long-range planning documents, as discussed above. As explained in the EIR/EIS, the total amount of Planned Development is limited to the 17,500 acres evaluated in the EIR/EIS

(see Section 2.2.1 and Section 4.1.2.3) because this is the amount of development that would be allowed in the Natomas Basin under adopted City, Sutter County, and Sacramento County land use plans. In other words, 17,500 acres represents the level of development considered reasonably foreseeable in the Basin.

Other specific development approval requests for lands outside of the City, Sutter County, and MAP Permit Areas were not considered reasonably foreseeable under NEPA for the reasons described above in the discussion regarding the treatment of cumulative effects under the ESA. Section 4.1.2.3 of the EIR/EIS explains that several other long-term projects, including the potential for development within the unincorporated portion of Sacramento County, have the potential to occur in the Basin at some unidentified future date. If these projects occur, they would not be included in the 17,500 acres of Planned Development unless the NBHCP is amended or a separate HCP were prepared for that additional development. Both the EIR/EIS and NBHCP acknowledge that any additional urban development in the Basin beyond 17,500 acres may contribute to significant cumulative environmental effects to the resources within the Natomas Basin. However, at the time the Draft EIR/EIS was prepared, insufficient data were available to conduct an assessment of these cumulative effects, in part, because the nature, location, amount, and extent of such development was unknown, and remains unknown as described further above in this Master Response. Additionally, no specific land uses or proposals were identified (with the exception of the Greenbriar Farms and West Lakeside areas) that would enable an analysis of potential cumulative impacts.

The following text summarizes the status of future specific development proposals or planning efforts that commentors suggest should be considered cumulative projects and the way in which the NBHCP and EIR/EIS address these planning efforts or proposals.

West Lakeside and Greenbriar Farms. The Draft NBHCP describes the West Lakeside and Greenbriar Farms proposals on page III-15. The developer has attempted to obtain necessary development approvals for several years to support development of the West Lakeside and Greenbriar Farms properties. In its latest attempts, the developer filed a general plan amendment, prezoning and annexation applications with the City on February 22, 2002 for the West Lakeside project. Although the developer has expressed interest in annexing the Greenbriar Farms property, it has not filed any applications with the City. Because the West Lakeside and Greenbriar Farms properties are *not* included in any adopted land use plans nor are they located within the City's SOI and city limits or within the County's Urban Services Boundary, development of these areas is not allowed by the City or Sacramento County. While the developer has expressed interest in annexation to the City, the status of these requests and the timing and ability to obtain necessary local approvals remain uncertain because it is unknown whether the Joint Vision effort would result in changes to the SOI so that such development could proceed. Consequently, development of these properties was considered speculative at the time the Draft NBHCP was prepared, and it remains speculative.

Moreover, the City is limited in its ability to approve development of the West Lakeside and Greenbriar Farms for the foreseeable future. In accordance with the Settlement Agreement in the prior *NWF v. Babbitt* litigation, the City adopted a resolution (Resolution No. 2001-518, Appendix H of the Final EIR/EIS), imposing restrictions on its approval of General Plan amendments, rezonings/ prezonings, and development agreements for the Camino Norte,

West Lakeside, and Greenbriar Farms areas, or any lands otherwise located outside of the existing boundaries of the North and South Natomas Community Plans until completion of the Joint Vision. Consequently, these areas are not covered by the NBHCP and the ITPs, and the City is prohibited under its Resolution from taking any actions to approve the West Lakeside and Greenbriar Farms annexations and development proposals pending the results of the Joint Vision effort. Development of the West Lakeside and Greenbriar Farms property is not considered reasonably certain to occur because extensive studies, planning, and further analyses are required as part of the Joint Vision process before any development approvals may be considered for any of these areas, and because the outcome of these efforts is unknown. These projects also are not considered related projects under ESA or CESA because they are not considered authorized activities that may be covered by the NBHCP and ITPs. For these reasons, they are not considered reasonably foreseeable.

Northern Territories/Brookfield Land Company. In the 1990s, Northern Territories, Inc. proposed a large development project in Sacramento County north of Elkhorn Boulevard outside the County's Urban Services Boundary. The County denied the development project and rejected the proposal to change the Urban Services Boundary for this project. As of the date of preparation of the Final NBHCP and EIR/EIS, the developer has not filed any further annexation requests with the County or the City of Sacramento. As stated above, the City is restricted in its consideration of this project, should an application be filed, because this area is outside of the City's SOI and County's Urban Services Boundary. In other words, unless the City's SOI or County's urban service boundary is expanded to include this property, the City or County must deny an urban development application. Consequently, this area is not covered by the NBHCP and the ITPs, and the City is prohibited under Resolution No. 2001-518 from taking any actions to approve a development proposal pending the results of the Joint Vision effort described above. Development of this property is not considered reasonably certain to occur because extensive studies, planning, and further analyses are required before any development approvals may be considered for this area, and because the outcome of these efforts is unknown. This project also is not considered a related project under the ESA because it is not covered by the NBHCP and ITPs. Consequently, it is not considered reasonably foreseeable.

North River Coalition. The North River proposal consists of 822 acres for development south of West El Camino Avenue, including a 350-acre auto mall, outside of the Urban Services Boundary and the City's Permit Area. Sacramento County has held on abeyance its response to this proposal pending the outcome of the Joint Vision process. Development of the North River Coalition's proposal is not considered reasonably certain to occur because extensive studies, planning, and further analyses are required as part of the Joint Vision process before the potential for development of this property can be determined.

Alleghany Properties. This area consists of 86 acres on the west side of El Centro Road outside of the City's Permit Area. No application has been filed for urban development on this property. This property must await the results of the Joint Vision planning effort before the City could consider development of this site.

Lauppe Family/AKT. This area consists of approximately 298 acres of land bounded by I-5, Powerline Road, West Drainage canal, and RD 1000 Lone Tree canal outside of the City's Permit Area. This property must await the results of the Joint Vision planning effort before

the City could consider development of this site. No application has been filed for urban development on this property.

Draft General Plan Amendment and Comprehensive Annexation Plan. Because of pressures from landowners to seek approval for urban development in Sacramento County, the City and Sacramento County undertook an evaluation of approximately 6,519 acres in North Natomas areas that might properly be included within the City's LAFCO-approved SOI and ultimately annexed to the City. This evaluation included areas within the area covered by the 1997 NBHCP, but outside of the area covered by the ITPs. This effort was driven, in part, by the fact that the Sacramento Regional County Sanitation District was undertaking an engineering master plan for sewer service for its entire service area. Landowners requested amendments to Sacramento County's General Plan to ensure that their properties were included within the County's urban services boundary or the County's General Plan policies were amended so that the Sanitation District could provide sewer service to their properties (Draft EIR for the General Plan Amendment for Long-term Planning in North Natomas or Other Appropriate Areas (SCH #: 1999022071), November 2000, page 4.2). As part of this SOI evaluation, Sacramento County issued a draft General Plan Amendment and Comprehensive Annexation Plan and related EIR in November 2000. This plan, however, was never adopted. A new planning effort, the Joint Vision described in Master Response 3 represents another attempt to guide a comprehensive solution for land use planning in the Basin. Consequently, these properties remain outside of the Sacramento Regional County Sanitation District service area, and as such, these properties both lack entitlements for urban development and sewer services.

Joint Vision. The Joint Vision process is addressed in Master Response 3, which states that the City and Sacramento County have recently undertaken a new planning effort, the Joint Vision for the Natomas Basin, to guide any future determinations regarding the City's SOI. This effort commenced after the Draft NBHCP documents were circulated for public review and comment. The Joint Vision is a planning and analysis effort which, when implemented by the City and Sacramento County, will be applied in determining whether or not to approve future annexation requests and development proposals—it is not, however, indicative of specific development efforts that could occur.

Before any development (i.e., prezoning or zoning to urban uses) associated with the Natomas Joint Vision may proceed, many other tasks and approvals must be completed, including among other activities: (1) land use planning; (2) environmental review, including a thorough biological resources evaluation; (3) compliance with all local, state, and federal laws; (4) approval by LAFCO of an amendment to the City's SOI; and (5) approval of the plan by at least both the City and Sacramento County. Any urban development that may be contemplated through future Joint Vision planning efforts is not addressed in the NBHCP. As stated in the Draft NBHCP, development beyond 17,500 acres would constitute a significant departure from the Operating Conservation Program established in the NBHCP. As such, no development outside of the 17,500 acres could or will be approved absent full compliance with the federal and state Endangered Species Acts and with NEPA and CEQA. No development outside of the 17,500 acres could or will occur without additional biological resource evaluations in the Basin.

Private University Proposal. In May, 2002, landowners of property comprising approximately 1,164 acres reportedly offered to donate land for a private university in exchange for Sutter

County assurances that the remaining land would be redesignated for urban development. At this time, no proposals have been submitted by the landowners or a private university for the development of a campus within the Natomas Basin. Consequently, the extent, location, and amount of development is unknown. Due to the ill-defined nature of this donation, the NBHCP does not include such efforts as Covered Activities or related projects.

Sacramento County. Commentors also have requested that the NBHCP and EIR/EIS consider the effects of Sacramento County's approval of rural residential and small-scale development projects that may occur in the Basin under existing zoning. Additionally, some commentors assert that Sacramento County, and specifically, the Airport, have conducted illegal activities resulting in take of threatened and endangered species. These topics are discussed below.

Sacramento County Airport. The Sacramento County Division of Airports initiated an update to the Master Plan for Sacramento International Airport in May 2002, but completion of the Master Plan Update has been delayed. It is anticipated that the Master Plan Update would address the expansion of the airport, including runways, terminals, and accessory facilities. The current schedule for the Master Plan Update is for a draft plan to be released late in 2003.

Rural Development. There are certain by-right uses allowed in the Natomas Basin outside of the Permit Areas. For example, a residence can be constructed in Sacramento County's AG-40 zone (agricultural zone with a minimum 40-acre lot size), as well as accessory structures as long as the parcel contains a minimum of five gross acres per accessory structure (Sacramento County Zoning Code, Section 205-07). These are permitted uses that could be built on parcels outside of the City and Sutter County Permit Areas without discretionary action. In addition, Section 120-14 of the Sacramento County Zoning Code addresses non-conforming parcels (e.g., existing parcels less than 40 acres in an AG-40 zone). In accordance with Section 120-14 of the Zoning Code, residences can be built on non-conforming parcels without discretionary approval as long as various requirements are met (i.e., the property was legally created prior to the effective date of the zoning ordinance). Non-discretionary construction of individual homes and small businesses has occurred from time to time throughout the Natomas Basin, and is expected to continue to occur throughout the duration of the permit term. Because future construction of this type is expected to occur in a manner similar to current practices, rural development is not considered a "project" that is subject to analysis of cumulative effects.

With respect to future development within the unincorporated portions of Sacramento County in the Natomas Basin, under the Joint Vision, the City of Sacramento would be responsible for activities related to planning new growth in the Basin; the County would be the appropriate agent for preserving open space, agricultural, and rural land uses (Joint Vision MOU, § I.B.). In this role, the County also would preserve its interest in the planing and development of the airport (not addressed in the NBHCP) and Metro Air Park (addressed in the NBHCP).

Regarding concerns raised about Sacramento County's role in allowing development activities to proceed without incidental take authorizations, the USFWS and CDFG sent a joint letter to Sacramento County notifying County officials that authorizing development to proceed without obtaining incidental take authorizations violates Section 9 of the ESA and

CESA (Appendix I). The USFWS and CDFG have informed the County of their intent to initiate enforcement actions in the event such activities continue.

Flood Control and Water Supply Projects

In response to the recommendation that local flood control projects be discussed in the context of cumulative actions, the EIR/EIS currently includes such a discussion (see Section 4.1.2.3) of these and other potential long-term future actions. As noted in the introduction to Section 4.1.2.2, the criteria for assessing whether an action would be evaluated in detail for cumulative impacts in association with the Proposed Action in this EIR/EIS are that an urban development permit or other permit application has been submitted to a federal or non-federal agency that has approval authority or those that are related to the types of impacts attributable to those that would result from implementing the Proposed Action evaluated in the EIR/EIS. As noted in EIR/EIS, a project by the U.S. Army Corps of Engineers and SAFCA would improve the east levee of the Sacramento River at some future, but unknown, time. This project is related to the comprehensive American River Watershed Investigation, which was an important precursor to the NBHCP. In addition, other projects are under consideration along the east levee, including the construction of a consolidated pumping plant for Natomas Mutual. Although the flood control and water-related projects discussed in Section 4.1.2.3 have the potential to occur in the future, data are insufficient to conduct a meaningful analysis of their cumulative impacts for several reasons as explained on page 4-7 of the Draft EIR/EIS, including: (1) the sponsor of the future activities had not yet initiated the planning and feasibility studies at the time the Draft EIR/EIS was prepared so the nature of the flood control and water-related activities was undefined; (2) where preliminary engineering plans were available, these plans were being revised, so the nature of the proposal remained unknown; or (3) the environmental review process for the projects had not been initiated at the time the Draft EIR/EIS was released.

3.1.4.4 Effect on the NBHCP of Future Development Outside the Permit Areas

As stated in the NBHCP, the conservation program and ITPs provide incidental take coverage for the cumulative development of 17,500 acres of Planned Development within the City, Sutter County, and the MAP Permit Areas in the Natomas Basin. As the NBHCP and EIR/EIS explain and for the reasons described above, development activities on unincorporated lands outside of the City, Sutter County, and MAP portion of Sacramento County are not addressed in the NBHCP and do not receive incidental take authorizations based upon this NBHCP (see Draft NBHCP pages I-5 to I-7, I-11; Draft EIR/EIS page 2-2).

The Operations Conservation Program proposed in the NBHCP is effective in compensating for the effects of incidental take associated with 17,500 acres of Planned Development when considered with the 7,267 acres of development which occurred in the Basin prior to 1997. Thus, 24,767 acres of urban development is contemplated in the Natomas Basin by the NBHCP. The NBHCP does not address more than 17,500 acres of Planned Development because it is unknown whether the NBHCP would remain effective in mitigating for effects beyond 17,500 acres. The analyses conducted in support of the NBHCP demonstrate that the Operating Conservation Program is effective with up to 24,767 acres of past, present, and future urban development in the Basin. Thus, the effectiveness of the NBHCP is dependent on limiting Planned Development to 17,500 acres of development. If future development proposals were to proceed, or developers were to seek annexation to the City of Sacramento for purposes of developing their projects, such proposals would be considered outside of

the scope of the NBHCP. These proposals would represent a significant departure from the Operating Conservation Program, which would trigger a new analysis and a separate HCP or amendment to the NBHCP. At this time, however, such development is unable to proceed because the City and Sacramento County have not completed the Joint Vision planning effort. Moreover, Resolution 2001-518 precludes certain development proposals from proceeding until a comprehensive annexation program is developed for the Basin.

Because a comprehensive annexation program for the remainder of the Natomas Basin has not been established, over 26,000 acres currently remain available within the Natomas Basin for their potential acquisition as Mitigation Lands. If the NBHCP is approved and ITPs are issued, TNBC may consider these areas as potential Mitigation Lands, to the extent landowners are willing to sell their property. The effectiveness of the NBHCP depends on the availability of such lands, as well as the potential availability of lands in Area B outside the Basin. The NBHCP contemplates that these lands will continue to be available for Mitigation Land acquisition. As such, in the event that the Joint Vision planning process were to result in a change in the City's SOI or other development were to proceed outside of the City's and Sutter County's Permit Areas, these changes would be viewed as a change in the NBHCP's Operating Conservation Program. These changes would, therefore, require an amendment to the NBHCP or a separate HCP for the development of such areas, as described in the NBHCP and further discussed in Master Response 3 (Joint Vision).

3.1.4.5 Inconsistencies in Cumulative Impact Analysis in the NBHCP and EIR/EIS

Comments also suggested that the NBHCP and the EIR/EIS are inconsistent in the discussion of cumulative impacts. The basis for the assertion of inconsistency is that the criteria used in the EIR/EIS for identifying the actions that could result in cumulative impacts are too narrow and do not allow for evaluation of future development. One comment stated that the EIR/EIS narrowly interprets the California Code of Regulations, Section 15355 (CEQA) and 40 CFR Section 1508.7 (NEPA) guidance on cumulative impacts. We believe the criteria used to identify actions to assess for cumulative impacts, the existing criteria used in the EIR/EIS are based on CEQA and NEPA guidance. They are adequate as defined and discussed further above. The Draft EIR/EIS includes verbatim the CEQA and NEPA guidance to which the comment refers (see Section 4.1.2.1, pages 4-3 and 4-4).

Commentors also suggest that future development projects are identified in the Draft NBHCP but not included in the EIS/EIR. Specifically, the NBHCP states that applications were filed for the West Lakeside and Greenbriar Farms projects as potential future annexation proposals, which are not covered by the NBHCP. The EIS/EIR indicates, however, that no applications have been filed for future specific development proposals. To clarify this situation, text revisions have been made to page 4-8 of the Draft EIR/EIS. The text of the changes is in Chapter 2 of this Final EIR/EIS.

3.1.5 Master Response 5: Swainson's Hawk Foraging Habitat

Commentors have raised concerns about the NBHCP's measures for mitigating the impacts to Swainson's hawk foraging habitat in the Natomas Basin from the Covered Activity of Planned Development. This master response is provided to clarify the effectiveness of the NBHCP, under ESA and CESA, in mitigating for the effects of take of Swainson's hawks

that could result from changes in foraging habitat because of Planned Development within the Natomas Basin.

The assessment of effects on Swainson's hawk foraging habitat from Planned Development evaluates the loss of potential Swainson's hawk foraging habitat within 1 mile of nesting trees located in the Basin and addresses the loss of potential foraging habitat generally within the Basin. The 1-mile radius is based on the fact that the availability and quality of habitat near nests has the potential to influence reproductive success (see the Addendum to the Biological Resources Technical Memo, Appendix K of the Final NBHCP, p. 11). More high and moderate quality habitat[1] in the Basin under baseline conditions occurs primarily within 1 mile of the nesting trees (9,431 acres of high and moderate quality habitat) than outside the 1-mile distance (8,070 acres of high and moderate quality habitat). The assessment of impacts to Swainson's hawk foraging habitat from implementing Planned Development also evaluates the potential loss of Swainson's hawk habitat located at distances greater than 1 mile of nesting trees throughout the Basin.

This assessment of effects of Planned Development and the implementation of the NBHCP must be considered in the context of effects on nesting habitat as evaluated in the Addendum to the Biological Resources Technical Memorandum (Appendix K of the Final NBHCP) and the NBHCP. Additionally, the analysis of effects on potential foraging habitat also must be considered in the context of the availability of foraging habitat within the region.

3.1.5.1 Effects on Potential Foraging Habitat Within 1 Mile of Nesting Trees

Effects

As demonstrated in the Addendum to the Biological Resources Technical Memorandum (Appendix K of the Final NBHCP) and the NBHCP, Planned Development within 1 mile of nesting trees would result in the loss of 4,148 acres of foraging habitat, including 311 acres of high quality habitat, 3,498 acres of moderate-quality habitat and 339 acres of low-quality habitat. Of the total potential foraging habitat, approximately 3,679 acres of potential habitat would be affected within the City of Sacramento Permit Area; approximately 305 acres would be affected within the MAP Permit Area; and 164 acres would be affected within Sutter County's Permit Area. Although foraging habitat would be affected, not all of this habitat is considered high quality, nor does it support equivalent levels of foraging opportunities. Very limited high-quality habitat exists in the Basin, as reflected in the very limited high-quality habitat within a mile of the nesting trees. As demonstrated in the NBHCP and the Addendum, most of the higher quality foraging habitat within 1 mile of the nest sites will be retained under the NBHCP.

Mitigation Lands and Avoidance Measures

The NBHCP requires that 8,750 acres of Mitigation Lands be acquired and maintained in a habitat reserve system as mitigation to offset the effects of take associated with Planned Development. In accordance with the NBHCP, all developers of the 17,500 acres of Planned Development will contribute Mitigation Fees to acquire the 8,750 acres of Mitigation Lands that offset the loss of habitat for Covered Species. Regardless of whether Planned

[1] Characterization of habitat quality was based on Estep and Teresa (1992) and is described in the Addendum to the Biological Resources Technical Memorandum (Appendix K of the Final NBHCP).

Development affects Swainson's hawk foraging habitat, each sponsor of Planned Development will be required to pay its Mitigation Fees, which will be applied to the purchase of 8,750 acres of Mitigation Lands.

Of this 8,750 acres, 4,375 acres would be maintained in rice, 2,187.5 acres would be managed marsh, and 2,187.5 acres would be in upland habitat. As explained in the Biological Resources Technical Memorandum (Appendix H of the NBHCP) and the Addendum to the Biological Resources Technical Memorandum (Appendix K of the Final NBHCP), 2,187.5 acres of upland habitat would be primarily managed to provide foraging habitat for Swainson's hawk. Additionally, 20 to 30 percent of the managed marsh reserves would be in upland edges and would provide another 546.9 acres of foraging habitat. Fallowing the rice reserves under the NBHCP will provide another 437.5 acres, and the MAP HCP affords an additional 200 acres of foraging associated with nest tree removal. In combination, these mitigation areas provide 3,372 acres of Mitigation Lands to offset the loss of 4,148 total acres of potential foraging habitat within 1 mile of nesting trees.

The NBHCP also requires extensive avoidance measures. Avoidance measures include avoiding removal of known nest trees, preserving valley oaks, preserving riparian habitat, implementing a tree planting program, and requiring avoidance measures associated with Authorized Development. By preserving nesting trees and associated habitat in which such trees are located, the NBHCP further contributes toward mitigating for the loss of foraging habitat. One notable avoidance measure involves avoidance of a 1,015-acre area, of which about 416 acres currently support non-rice crops within the Sutter County portion of the Swainson's Hawk Zone. Sutter County has eliminated this area from its Permit Area and will initiate a general plan amendment to redesignate lands within this area to agricultural use. This measure benefits Swainson's hawks by providing long-term certainty that the land use designation of 1,015 acres within 1 mile of known nest sites will remain compatible with Swainson's hawk foraging.[2] This avoidance measure contributes to a combined total of 4,387 acres of avoidance and compensation, which exceeds the projected loss of 4,148 acres of potential habitat within 1 mile of nest trees.

3.1.5.2 Effects on Foraging Habitat Within the Natomas Basin

The Biological Resources Technical Memorandum (Appendix H of the NBHCP) and the Addendum to the Biological Resources Technical Memorandum (Appendix K of the Final NBHCP) indicate that under baseline conditions approximately 22,051 acres of the Basin provide foraging habitat for Swainson's hawk. The majority of this habitat is considered to be of moderate quality (15,666 acres) and low quality (4,550 acres). High-quality habitat comprises only 1,835 acres of the Basin. Planned Development within the Basin would result in the loss of 9,188 acres of foraging habitat, including 733 acres of high-quality habitat, 7,299 acres of moderate-quality habitat and 1,156 acres of low-quality habitat. None of the 371 acres of alfalfa would be affected (Appendix K, p. 15). Of this 9,188 acres, approximately 6,925 acres of potential habitat would be affected within the City of Sacramento Permit Area, approximately 403 acres would be affected within the MAP Permit Area, and 1,860 acres would be affected within Sutter County's Permit Area.

[2] The 1,015 acres of avoidance within the Sutter County portion of the Swainson's Hawk Zone is comprised of lands with varying forage values. However, the proximity of the land to the Sacramento River enhances the foraging values of this land compared with more remote lands in the Basin. Additionally, avoidance of development in this area provides a substantial buffer between Sacramento River nesting habitat and urban development.

As indicated in the previous text, regardless of whether Planned Development affects Swainson's hawk foraging habitat, each sponsor of Planned Development will be required to pay its Mitigation Fees that will be applied to the purchase of 8,750 acres of Mitigation Lands. Of these 8,750 acres, 2,187.5 acres will be maintained as upland reserves. The additional 546.9 acres of managed marsh in upland edges, 437.5 acres of fallowed rice reserves, and the MAP HCP's 200 acres of foraging associated with nest tree removal, in conjunction with the 2,187.5 acres of upland reserves provide 3,372 acres of Mitigation Lands. In addition, under the NBHCP, another 1,015 acres within the Sutter County portion of the Swainson's Hawk Zone would be located outside Sutter County's Permit Area, and a general plan amendment will be initiated to designate this land for open space and agricultural use resulting in a combined total of 4,387 acres of avoidance and mitigation.

Effects Based on Habitat Quality of Mitigation Lands and Swainson's Hawk Zone

The NBHCP also requires enhancement and restoration activities on Mitigation Lands to maintain higher quality habitat in the Basin. For example, the NBHCP requires that the City of Sacramento plant a total of 60 nest trees on TNBC reserves (See Draft NBHCP, "Extent of Take of Swainson's Hawk as a Result of Covered Activities, Nesting Habitat," page VII-11). While the nesting trees serve as mitigation for the potential loss of four nest trees, providing additional nesting habitat in proximity to foraging habitat will enhance the foraging habitat quality. From an energetics perspective, nesting locations will be provided in proximity to foraging opportunities to minimize the expenditure of energy associated with longer foraging distances. Woodbridge (1991, cited in England et al., 1997) found reproductive success of Swainson's hawk to decline as the distance to foraging habitat increased. By creating nesting opportunities near foraging habitat provided on the Mitigation Lands or near existing foraging habitat that is underused because of the absence of nearby nest sites, reproductive success is expected to be improved.

Although the NBHCP is designed to replace lower-quality habitat with higher-quality habitat, under a worst-case scenario, if TNBC acquires all existing high quality habitat, the 2,187.5 acres of Mitigation Lands would result in only a small increase of about 350 acres in high quality habitat when compared to baseline conditions (Appendix K, p. 16). However, under the best possible future condition for Swainson's hawk, the proposed Mitigation Lands would provide new foraging opportunities resulting in a doubling in the amount of high quality habitat relative to baseline conditions (Appendix K, pages 16-17). That is, the 2,187.5 acres of upland habitat to be provided in the reserves would be high quality habitat created from lands providing no foraging opportunities for Swainson's hawk or low or moderate value as foraging habitat.

Effects Based on Temporal Availability of Habitat

The Mitigation Lands, restoration and enhancement measures, and adaptive management program are fundamental features of the Operating Conservation Program in terms of improving the temporal availability of foraging habitat. Under the NBHCP, the upland reserves will be managed to provide consistently accessible and abundant prey for Swainson's hawks throughout their residency. Such measures would increase the availability of foraging habitat relative to baseline conditions during most (April, May, and July) of the nesting period for Swainson's hawk (Addendum, pages 17-18). During this important foraging period, TNBC reserves, in conjunction with remaining foraging habitat under baseline conditions, would provide between 4,765 and 8,130 acres of foraging habitat

within the Basin depending on the differences in implementation assumptions (Appendix K, p. 18). This range reflects the fact that baseline conditions afford varying foraging opportunities depending on the month of the year and the crop types. Additionally, rice fields are drained for two months of the seven-month period during which Swainson's hawk forage in the Natomas Basin and, when drained, these rice fields provide additional foraging habitat. Within the managed marsh component of the TNBC system of reserves, substantial upland areas and the seasonally dry component of the managed marsh provide foraging habitat for Swainson's hawk.

In addition to the avoidance and mitigation measures, the NBHCP (see NBHCP, p. VII-15) provides extensive minimization measures related to construction impacts associated with Planned Development or TNBC activities designed to further reduce the effects of take. The Operating Conservation Program also includes a comprehensive monitoring and adaptive management program designed to respond to the needs of the Covered Species over the 50-year term of the permits. One of the features of the adaptive management program enables adjustments in reserve composition to address competing needs among upland and wetland dependent species (see NBHCP, Sections VI and IV.C.1.e). Another feature of adaptive management is that Mitigation Lands that have not been restored and are impacted by substantial land use changes may be replaced with replacement reserve sites that would provide improved foraging habitat opportunities (see NBHCP, Section IV.C.1.e.). These aspects of the Operating Conservation Program contribute to the preservation and enhancement of foraging habitat within the Basin.

3.1.5.3 Baseline Considerations

The NBHCP addresses up to 17,500 acres of Planned Development in the Natomas Basin. With 17,500 acres of Planned Development, approximately 12,863 acres of baseline foraging habitat would remain outside the Permit Areas and within the Basin. The majority of the 12,863 acres is comprised of moderate quality habitat and would be expected to continue to provide moderate quality habitat (see Appendix K, page 17) during the term of the NBHCP and ITPs. Additionally, the Mitigation Lands established under the NBHCP are anticipated to result in total available foraging habitat ranging from a worst case scenario of 13,847 acres to 16,035 acres depending on the extent to which the Mitigation Lands are established on lands currently providing foraging habitat.

Much of this habitat is expected to be retained in the future because adopted land use plans and policies designate these areas for open space and agriculture. With respect to the City of Sacramento, the City's Sphere of Influence is contiguous with its Permit Area. As such, all remaining lands within the Sacramento County portion of the Basin are unincorporated and located outside the City's Sphere of Influence. The City's adopted land use policies at this time do not contemplate urban development of lands outside its Sphere of Influence.

Approximately 16,881 acres of the Basin are within Sutter County. Of this acreage, 7,467 acres are within the area of Authorized Development for Sutter County. The remainder areas (excluding the 1,015 acres subject to the General Plan Amendment for the Swainson's Hawk Zone) are anticipated to be retained in agricultural lands for the foreseeable future. Of this 8,399-acre remainder area, 1,686 acres are considered Swainson's hawk foraging habitat. Additionally, another 37 acres of levee slopes along the perimeter of the Sutter County portion of the Plan Area also provide foraging habitat. Another 1,909 acres of

foraging habitat is provided in the SAFCA-owned "Triangle Parcel" which is situated within a flood plain and designated as open space reserves.

Approximately 4,064 acres of lands (not including the Swainson's Hawk Zone or airport buffer lands) within the Sacramento County portion of the Basin are designated in the Sacramento County General Plan and zoned by the County Zoning Ordinance for agricultural uses and currently provide potential foraging opportunities. Additionally, the 1-mile wide Swainson's Hawk Zone extends through Sacramento County. If Sacramento County agrees to maintain its portion of the Swainson's Hawk Zone in agriculture and open space uses, an additional 5,808 acres of foraging habitat will be precluded from development, some of which could be acquired as Mitigation Lands. Additionally, another 39.7 acres of levee slopes along the perimeter of the Sacramento County portion of the Plan Area also provide foraging habitat. Development of the Sacramento County portion of the Swainson's Hawk Zone with urban uses would require that Sacramento County either participate in a revision or amendment to the NBHCP or develop a separate conservation strategy to secure incidental take authorizations.

Within Sacramento County, Sacramento International Airport maintains approximately 4,050 acres of buffer lands surrounding the existing airport. These buffer lands provide foraging habitat for Natomas Basin Swainson's hawk populations (approximately 889 acres). Development of the airport buffer lands with urban uses would require that Sacramento County and the airport either participate in a revision or amendment to the NBHCP or develop a separate conservation strategy to secure incidental take authorizations.

The Sutter County and Sacramento County lands described above represent a total of 12,940 acres of baseline foraging habitat that are anticipated to remain undeveloped in the Basin. The Mitigation Lands provided under the NBHCP would add to and improve on these foraging lands remaining within the Natomas Basin.

3.1.5.4 Long-Term Availability of Foraging Habitat

It is extremely unlikely that the future and baseline foraging lands will be converted to urban uses without requiring additional mitigation of the effects resulting from those urban uses because of their location, site constraints, and land use designations. Under the NBHCP, the Mitigation Lands will be retained as mitigation in perpetuity.

For urban development occurring within the City (i.e., through annexation of Sacramento County lands) or Sutter County portions of the Basin outside the Permit Areas, the City and Sutter County have agreed that any such land use approvals would trigger an evaluation of effects due to the loss of foraging habitat within the Basin and would require that the City of Sacramento or Sutter County, as may be appropriate, either participate in a revision/ amendment to the NBHCP or develop a separate conservation strategy to secure incidental take authorizations for that additional development. The project applicants for this additional development would be required to mitigate the impacts of their development on foraging habitat.

Under the NBHCP, the 1,015 acres of lands within the Sutter County portion of the Swainson's Hawk Zone cannot be converted to urban development without triggering further review and approval of a new or amended conservation strategy for such additional

development. Similarly, under the NBHCP conversion of the 1,686 acres of remaining foraging habitat in Sutter County (see Table 3-2) would not occur without triggering further review and a new or amended conservation strategy. During the life of the permits, urban development in the agriculturally zoned portions of Sutter County is unlikely for the reasons further described in Section IV.C.1.e of the NBHCP. Additionally, due to their location and constraints, lands within Sutter County such as the Triangle Parcel and the slopes of levees are expected to continue to provide another 991 acres of available foraging opportunities in the long-term. Urban development on the levee slopes in Sutter County would be precluded pursuant to Reclamation Board regulations.

TABLE 3-2
Baseline Conditions Remaining Under NBHCP

	Acreage within Basin and TNBC Permit Area							Regional Acreage — Out of Basin
Habitat	Sacramento County Swainson's Hawk Zone	Sacramento County Agriculture	Airport Buffer Lands	Sacramento County Levees	Sutter County Agriculture	Sutter County Levees	Area B -- Triangle Parcel	Yolo County[a]
High	175	607	0	0	202			
Moderate	3,266	3,043	525	39.7	1,338	37	954	
Low	2,368	415	364	0	146			
Total	**5,808**	**4,064**	**889**	**39.7**	**1,686**	**37**	**954**	**25,000**

[a] The eastern edge of the Natomas Basin is about 8 miles distant from the Sacramento River where most of the Swainson's hawk nest sites are located. To the west of the Sacramento River, about 45,000 acres of Yolo County are within 8 miles of the river. Based on crop data for Yolo County for the period 1991 through 2001, about 25,000 acres of this area provides potential foraging habitat for Swainson's hawk nesting along the Sacramento River.

In Sacramento County, more than 10,000 acres are anticipated to provide available foraging opportunities as shown in Tables 3-2 and 3-3. For example, the 889 acres of airport buffer lands are located in a restricted over-flight zone. Therefore, safety restrictions preclude development in this area. Conversion of undeveloped lands to urban development within the remaining Sacramento County portion of the Basin outside the Permit Areas would require either expansion of the City's Sphere of Influence or adjustments to the County's Urban Services Boundary, approval by the Local Agency Formation Commission, general plan amendments, rezoning, and changes in policies regarding the provision of services. These land use approvals would trigger an evaluation of effects due to the loss of foraging habitat within the Basin and would require that Sacramento County or City of Sacramento, as may be appropriate, either participate in a revision or amendment to the NBHCP or develop a separate conservation strategy to secure incidental take authorizations.

TABLE 3-3
Available Foraging Opportunities

Basin and TNBC Permit Area Foraging Locations	Acreage
Remaining Lands within Sutter County[a]	2,677
Remaining Lands within Sacramento County[b]	10,761
Avoidance and Compensation Provided Under NBHCP[c]	4,387

[a] Includes Triangle Parcel, levee slopes, and agricultural zoned lands.
[b] Includes agricultural zoned lands, airport buffer lands, and Sacramento County portion of Swainson's Hawk Zone.
[c] Mitigation Lands would be derived from lands in Sacramento and Sutter counties outside of the Permit Areas and could consist of lands included in the acreages totals of lands remaining in Sacramento and Sutter counties.

For remaining lands within the Sacramento County portion of the Basin, Sacramento County and the City have agreed to the guiding principle that, should further development be considered in the Natomas Basin, it will be necessary to consider a new, separate, or enhanced HCP to address development impacts to Federal and State protected species (Joint Vision MOU Recitals, Appendix G of this Final EIR/EIS, p. 2). Also, both Sacramento County and the City have acknowledged that open space provided in the Basin in the future may be in conjunction with, or distinct from the NBHCP, and may exceed the scope of the mitigation contained in the NBHCP. Both the County and the City have further expressed that any new development beyond that covered by and analyzed in the NBHCP will be required to comply with State and Federal laws and regulations, and provide adequate habitat and buffer areas for affected species (Joint Vision, § A.2.).

Thus, in the event that further development should be considered in the Basin, all three land use jurisdictions governing local land use in the Basin — the City, Sutter County and Sacramento County— have committed either through the NBHCP or by separate agreement, to a new, separate or enhanced conservation strategy for such additional development.

Although the existing baseline foraging habitat is not considered mitigation under the NBHCP, the NBHCP adaptive management program is designed to respond to changes in baseline habitat that could occur if existing undeveloped lands in the Basin were converted to urban uses. As part of the Overall NBHCP Program Review and the Independent Program Reviews (see NBHCP Sections VI.I and VI.J), a general evaluation of Basin land uses will be conducted to determine whether amendments to adopted General Plan land use designations, master plan amendments, specific plan adoption or amendments, or rezonings to allow urban land uses outside the Permit Areas have the potential to adversely affect the NBHCP Operating Conservation Plan. In the event that available foraging opportunities, as identified in Table 3-3, are converted to urban uses without adequate provisions to maintain foraging habitat, thus potentially compromising the effectiveness of the NBHCP Operating Conservation Program, TNBC would consider and implement the actions contained in NBHCP Section IV.C.1.e.

3.1.5.5 Regional Considerations

Foraging habitat opportunities in the Natomas Basin must be considered within the Basin's regional context as hawks do not limit their foraging to the Basin. As the Addendum indicates, under the NBHCP, the Mitigation Lands would not be the only foraging habitat available to Swainson's hawks nesting in the Natomas Basin. Foraging habitat available in Yolo County on the west side of the Sacramento River supports more than 200,000 acres of non-rice agricultural crops with about 40,000 acres of alfalfa (Appendix K, p. 15). About 25,000 acres of non-rice crops are within the same distance of nest sites on the Sacramento River as foraging opportunities provided in the Natomas Basin. The enhanced foraging opportunities provided by the NBHCP Mitigation Lands extend the available foraging opportunities in the region and enable the Natomas Basin to function more effectively in providing foraging habitat for hawks relying on the Yolo Basin and surrounding areas.

3.1.5.6 Findings Regarding Operating Conservation Program

The NBHCP Operating Conservation Program is effective in mitigating for the loss of Swainson's hawk foraging habitat within each Permit Area and within the Natomas Basin as a whole.

Overall Effects due to Authorized Development in the City's Permit Area

Authorized Development within the City of Sacramento's Permit Area potentially would result in the loss of 3,679 acres of foraging habitat within 1 mile of nesting trees. Within the Basin as a whole, Authorized Development in the City's Permit Area would result in the loss of 6,925 acres of foraging habitat. Approximately 1,006.3 acres of upland reserves would be available to offset this loss. When combined with the 201 acres due to 10 percent fallowed rice, and 252 acres for upland edges of managed marsh, a total of 1,459 acres would be provided on the reserves purchased with Mitigation Fees collected from City of Sacramento developers. Moreover, the City provides extensive nesting habitat mitigation as further described in the NBHCP. The provision of additional nesting habitat in proximity to foraging areas will further enhance the effectiveness of the foraging opportunities available in the Basin. Additionally, the reserve composition on TNBC Mitigation Lands may be adjusted in the event that only the City proceeds under the NBHCP, such that additional upland reserves would be established in lieu of rice fields.

Overall Effects due to Authorized Development in Sutter County's Permit Area

Within 1 mile of nesting trees, Authorized Development in the Sutter County Permit Area would result in the loss of 164 acres of foraging habitat. For the Basin as a whole, Sutter County Authorized Development would result in the loss of 1,860 acres of foraging habitat (within 1 mile and outside 1 mile of nesting trees). Sutter County would provide 933.4 acres of upland reserves, which more than compensates for the loss of 164 acres of foraging habitat within 1 mile of nesting trees. When combined with the 187 acres due to 10 percent fallowed rice, and 233 acres for upland edges of managed marsh, a total of 1,353 acres would be provided on the reserves purchased with Mitigation Fees collected from Sutter County developers. In addition, Sutter County will process a general plan amendment for agricultural uses on 1,015 acres of the Sutter County portion of the Swainson's Hawk Zone.

Overall Effects due to MAP

Within 1 mile of nesting trees, MAP development would result in the loss of 305 acres of foraging habitat. A total of 450 acres of reserve sites (250 acres) and mitigation for loss of

nesting trees (200 acres) would be provided, which results in a greater than 1:1 mitigation. For the Basin as a whole, MAP development would result in the loss of 403 acres of foraging habitat (within 1 mile and outside 1 mile of nesting trees). The 450 acres of reserves and other Mitigation Lands would offset this loss of potential habitat.

Overall Effects of the NBHCP

The NBHCP Operating Conservation Program results in a total of up to 4,387 acres of avoidance, mitigation, and enhancement/restoration lands to offset the loss of 4,149 acres of potential habitat within 1 mile of nesting trees and a total loss of 9,188 acres within the Basin. When considered in the context of baseline conditions, while implementation of the NBHCP would result in a net loss of between 6,016 acres to 8,204 acres of potential foraging habitat in the Basin overall, the amount of high value habitat would nearly double from 1,835 acres to 3,290 acres (Addendum, page 15). Further, 13,438 acres of existing foraging habitat would remain within specified portions of the Basin (Table 3-3) and would not be converted to urban development without triggering a new or amended conservation strategy for the additional development. The NBHCP Operating Conservation Program would add to and improve on these foraging lands. Additionally, about 25,000 acres of foraging habitat would be available in nearby Yolo County.

NBHCP reflects a multi-species approach to conservation planning. While the loss of habitat of one species may be greater within one Permit Area when compared to the loss of that same area within another Permit Area, the multi-species and multi-jurisdictional approach embodied in the NBHCP provides opportunities for offsetting such effects in a variety of ways. For example, development within the City's Permit Area would result in a greater loss of Swainson's hawk foraging habitat than within Sutter County's Permit Area. The Sutter County portion of the Basin, however, offers additional opportunities to provide foraging habitat than does the City. By contrast, Sutter County development would result in a greater loss of giant garter snake habitat than would development within the City. However, the City's portion of the Basin provides greater opportunities to provide giant garter snake habitat. Thus, while each Permittee will implement avoidance, minimization, and mitigation measures to offset the effects of take of each Covered Species within each Permittee's Permit Area, the Plan is designed to recognize the combined mitigation opportunities provided with each Permittee's participation. Moreover, the provision of higher quality foraging habitat under the NBHCP contributes to the availability of foraging opportunities within the Basin and from a regional context.

3.2 Individual Responses to Comments

Attachments 1 and 2 include copies of the individual comment letters and their responses, respectively. As discussed in Section 1.1 of this Final EIR/EIS, the comment letters are organized in the following way:

- Government—G (federal agencies, state agencies, local agencies)
- Organizations—O
- Individuals—I

In addition, Table 3-4 is a list of the comment letters and the agencies, organizations, or individuals that submitted them.

TABLE 3-4
Comment Letters Received on the NBHCP Draft EIR/EIS

Comment Number	Commentor
G1	U.S. Army Corps of Engineers
G2	Environmental Protection Agency
G3	California Department of Fish and Game
G4	Caltrans—Aeronautics Division
G5	Caltrans, District 3
G6	California Department of Water Resources
G7	Placer County Transportation Planning Agency
G8	County of Sacramento
O1	Environmental Council of Sacramento/Friends of Swainson's Hawk/National Wildlife Federation/Planning and Conservation League/Sierra Club
O2	Friends of Swainson's Hawk
O3	Institute for Ecological Health
O4	Swainson's Hawk Technical Advisory Committee
I1	Chris Chaddock
I2	The Diepenbrock Law Firm
I3	Downey, Brand, Seymour & Rohwer
I4	Kim Gagnon
I5	Eric Hansen
I6	Daniel Hrdy, MD
I7	Burton H. Lauppe
I8	Frank McCormack
I9	McKenzie Farms
I10	Jud Monroe and Dean Carrier
I11	Perry Farms
I12	Remy, Thomas and Moose
I13	Law Offices of Gregory Thatch

G: Government
O: Organization
I: Individual

SECTION 4

References

Babcock, K. W. 1995. Home range and habitat use of breeding Swainson's hawks in the Sacramento Valley of California. *J. Raptor Res.* 29: 193-197.

Bechard, M. J. 1983. Food supply and the occurrence of brood reduction in Swainson's hawk. *Wilson Bull.* 95(2): 233-242.

Bechard, M. J. 1982. Effect of vegetative cover on foraging site selection by Swainson's hawk. *Condor.* 84: 153-159.

Brode J. M. and G. E. Hansen. 1992. Status and future management of the giant garter snake (*Thamnophis gigas*) within the southern American Basin, Sacramento and Sutter counties, California. California Department of Fish and Game Inland Fisheries Division. Endangered Species Project. January.

California Agricultural Commissioners. 2003. County Crop Report. Available at http://www.nass.usda.gov/ca/bul/agcom/indexcac.htm

CDFG (California Department of Fish and Game). 1994. *Staff Report Regarding Mitigation for the Swainson's Hawk in the Central Valley of California.*

CH2M HILL. 2002a. Biological Resources Technical Memorandum. Appendix H of the Draft NBHCP. August.

CH2M HILL. 2002b. Habitat and Land Use Assessment Database.

Dickey, J. 2003. Personal communication with S. Taylor of CH2M HILL. February 12.

Empire National Nursery. On the web at: http://www.cdr3.com/nursery

England, A. S., M. J. Bechard, and C. S. Houston. 1997. Swainson's Hawk. *The Birds of North America.*

England, A. S., J. A. Estep, and W. R. Holt. 1995. Nest-site selection and reproductive performance of urban-nesting Swainson's hawks in the Central Valley of California. *J. Raptor Res.* 29 (3): 179-186.

EPS (Economic Planning Systems). 2002. The Economic Analysis of the Natomas Basin Habitat Conservation Plan, Appendix A of the Draft NBHCP. March.

Estep, J. A. 2002. Nesting Swainson's hawks (*Buteo swainsoni*) in the Natomas Basin Habitat Conservation Plan Area 2002 Annual Survey Results. Prepared for The Natomas Basin Conservancy. Sacramento, CA.

Estep, J. A. 1989. Biology, movements, and habitat relationships of the Swainson's hawk in the Central Valley of California. California Department of Fish and Game. *Wildlife Management Branch Administrative Report 88-4.* Sacramento, CA.

Estep, J. A. and S. Teresa. 1992. Regional conservation planning for the Swainson's hawk (*Buteo swainsoni*) in the Central Valley of California. Pages 775-789. In D. R. McCullough and R. H. Barrett (eds.). *Wildlife 2001: Populations.* Elsevier Applied Science, New York, NY.

Febbo. 2001. Personal communication between John Febbo and Matt Franck of CH2M HILL.

Hansen, G. E. and J. M. Brode. 1992. An evaluation of the time and conditions required for newly constructed waterways to become suitable habitat for the giant garter snake (*Thamnophis gigas*). Unpublished report. May.

Houston, C. S. and J. K. Schmutz. 1995. Declining reproduction among Swainson's hawks in prairie Canada. *J. Raptor Res.* 29 (3): 198-201.

Janes, S.W. 1987. Status and decline of Swainson's hawks in Oregon: The role of habitat and interspecific competition. Oregon Birds 13 (2): 165-179.

Rinek, L. 2003. Personal communication between L. Rinek, Wildlife Biologist, United States Fish and Wildlife Service, with S. Taylor, CH2M HILL. March.

Redwood Barn Nursery. 2003. Personal communication with R. Huddleston, CH2M HILL. February 21.

Smallwood, K. S. 1995. Scaling Swainson's hawk population density for assessing habitat use across an agricultural landscape. *J. Raptor Res.* 29 (3): 172-178.

U.S. Department of the Interior, Fish and Wildlife Service; U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 1996. *Habitat Conservation Planning and Incidental Take Permit Processing Handbook.* November 4.

USEPA (United States Environmental Protection Agency. 1999. *Consideration of Cumulative Impacts in EPA Review of NEPA Documents.* EPA 315-R-99-002. May.

USFWS (United States Fish and Wildlife Service). 1997. *Programmatic Consultation for Projects with Relatively Small Effects to Vernal Pools.*

Williams, J. 2003. Personal communication between J. Williams, Agricultural Advisor for the Natomas Basin, University of California, Davis, Agricultural Extension, and S. Taylor, CH2M HILL. February 12.

Woodbridge, B, 1991. Habitat selection by nesting Swainson's hawks: a hierarchical approach. M.S. Thesis, Oregon State University, Corvallis, OR. Cited in England, A. S., M. J. Bechard, and C. S. Houston. 1997. *Swainson's Hawk. The Birds of North America.*

Wylie, G. D. 1998. Giant garter snake project. 1998 Progress Report. United States Geological Survey, Biological Resources Division. Dixon Field Station. Dixon Field Station. Dixon, CA.

Wylie, G. D. and M. L. Casazza, 2001. Investigations of giant garter snakes in the Natomas Basin: 2001 Field Season. United States Geological Survey, Biological Resources Division. Dixon Field Station. Dixon Field Station. Dixon, CA.

Wylie, G. D. and M. L. Casazza. 2000. Investigations of giant garter snakes in the Natomas Basin: 1998-1999. United States Geological Survey, Biological Resources Division. Dixon Field Station. Dixon, CA.

Wylie, G. D. and L. L. Martin. 2002. Investigations of giant garter snakes in the Natomas Basin: 2002 field season. United States Geological Survey, Biological Resources Division. Dixon Field Station. Dixon, CA.

ATTACHMENT 1

Comments

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

REPLY TO ATTENTION OF

October 31, 2002

Regulatory Branch (199800167)

Mr. Wayne White
Field Supervisor
U.S. Fish & Wildlife Service
2800 Cottage Way, W-2605
Sacramento, California 95825-3901

Dear Mr. White,

I am responding to the Draft Environmental Impact Report for the Draft Natomas Basin Habitat Conservation Plan (NBHCP), that was prepared by a number of agencies, which include the City of Sacramento, Sutter County, Natomas Basin Conservancy, and in association with the Reclamation District No. 1000 and the Natomas Central Mutual Water Company. The report was prepared for the United States Fish and Wildlife Service and the California Department of Fish and Game.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, and seeps.

G1-1

Any project, project feature, or channel dredging that result in the discharge of dredged or fill material into waters of the United States **including those that are covered by the proposed NBHCP** will require Department of Army authorization prior to starting work. Every effort should be made to avoid project features which require the discharge of dredged of fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

Please refer to identification number 199800167 in any future correspondence concerning this project. If you have any questions, please write to Laura Whitney at the letterhead address, or email Laura.A.Whitney@usace.army.mil, or telephone 916-557-7455.

Sincerely,

Tom Cavanaugh
Chief, Sacramento Valley Office

Vicki Campbell, Chief, Conservation Planning District, U.S. Fish & Wildlife Service, 2800 Cottage Way, W-2605, Sacramento, California 95825-3901
City of Sacramento, City Hall, 915 I Street, Room 100, Sacramento, California 95814
Sutter County, P.O. Box 1555, Yuba City, California, 95992
The Natomas Basin Conservancy, 1750 Creekside Oaks Drive, Suite 290, Sacramento, California 95833

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 30, 2002

Ms. Vicki Campbell
Division Chief
Conservation Planning
US Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, W-2605
Sacramento, CA 95825

Dear Ms. Campbell:

G2-1

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Report/Environmental Impact Statement (DEIS) for the project entitled **Natomas Basin Habitat Conservation Plan and Incidental Take Permit, Sacramento and Sutter Counties, California** (CEQ # 020343, ERP# SFW-K64021-CA). Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The US Fish and Wildlife Service (Service), is considering approval of a revised Natomas Basin Habitat Conservation Plan (Natomas Basin HCP) and re-issuance of Endangered Species Act Incidental Take Permits (ITPs) to the City of Sacramento (City), Sutter County, and the Natomas Basin Conservancy (Conservancy). Reclamation District No. 1000 (RD 1000) and the Natomas Central Mutual Water Company (Natomas Mutual) may be future permittees. Incidental take of listed species could occur as a result of urban development in the Natomas Basin. The Natomas Basin is the primary urban growth center for the City of Sacramento and Sutter County.

The Natomas Basin HCP was developed to provide and implement a multispecies conservation program to minimize and mitigate impacts of planned urban development by the City of Sacramento and Sutter County and of land management activities of the Conservancy, RD 1000, and Natomas Mutual. The focus of the Natomas Basin HCP basin-wide conservation program is the preservation, enhancement, and restoration of ecological communities which support species associated with the wetland and upland habitats of the Natomas Basin. Through the payment of development fees, one-half acre of mitigation land would be established for every acre of land developed within the Natomas Basin HCP area. The mitigation land would be acquired and managed by the Conservancy, a non-profit conservation organization established to implement the Natomas Basin HCP. The Natomas Basin HCP covers the entire 53,537 acres of undeveloped and agricultural land in northwestern Sacramento County and southern Sutter County (Natomas Basin and Area B, north of the Natomas Basin).

Issuance of the ITPs would allow urban development of 17,500 acres in the City of Sacramento, Sutter County, and Metro Air Park over the 50-year permit period. Using development fees, the Conservancy would acquire 8,750 acres of mitigation lands to compensate for incidental take of threatened and endangered species and for habitat lost due to urban development. Of the acquired lands, 75 percent would be managed as wetlands or in rice production and 25 percent as upland habitat. Mitigation land located in the Swainson's Hawk Zone (land within one mile of the Sacramento River) would be managed specifically for Swainson's Hawk nesting and foraging habitat. In addition, urban developers, RD 1000, Natomas Mutual, and the Conservancy would implement proven species-specific measures to avoid and minimize incidental take during construction, rice farming, canal operation and maintenance, and habitat reserve management on their lands. The DEIS evaluates six alternatives: Revised Natomas Basin HCP (Proposed Action), Increased Mitigation ratio of 1:1 (Alternative 1), Habitat-Based Mitigation (habitat value focused reserves, Alternative 2), Reserve Zones (geographically focused habitat reserves, Alternative 3), Reduced Potential for Incidental Take (urban development restricted to 12,000 acres, Alternative 4), and No Action - No Take (Alternative 5).

Prior to adoption of the Natomas Basin HCP and issuance of an Incidental Take Permit to the City of Sacramento in December 1997, the Service prepared an Environmental Assessment. A Federal court ruling on August 15, 2000, held that the Service's decision to issue the Permit and its decision not to prepare an EIS for the project were arbitrary and capricious. This DEIS was prepared to address the court's concerns and support the issuance of Permits to both the City and Sutter County. On May 15, 2001, an interim settlement agreement was approved which allowed a limited amount of development to go forward during the preparation of this DEIS. The settlement agreement provides for acquisition by the Conservancy of some of the best quality habitats in the basin and a temporary increase in mitigation fees from developers to pay for them.

In addition, a separate Incidental Take Permit has been issued by the Service for the Metro Air Park Property Owners Association for urbanization of 1,983 acres of land within the Natomas Basin portion of unincorporated Sacramento County. The Metro Air Park development is included in the 17,500 acres of planned development covered by the Natomas Basin HCP and ITPs evaluated in this DEIS. The Metro Air Park Property Owners Association propose participation in the Natomas Basin HCP. Their Metro Air Park HCP incorporates the Natomas Basin HCP by reference and would automatically include amendments or modifications made to the Natomas Basin HCP conservation program.

EPA supports the multi-species/multi-habitat approach, use of adaptive management, and an inclusive habitat conservation plan development process. We commend the acquisition and preservation of large blocks of new habitat reserves with a mosaic of wetland, rice production, and upland habitats. We are also pleased to see the proposed reserve urban and road buffer zones, connectivity and water supply requirements, HCP Technical Advisory Committee, species-specific conservation measures, and the focus on providing wetland habitat while also preserving and accommodating valuable commercial rice production.

G2-1

G2-2 In addition to preserving and restoring already existing undeveloped habitat, we advocate providing specific conservation measures or nonmonetary "incidental take" mitigation measures on the land to be developed. For instance, we believe a commitment to planned growth which is town-centered, transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses could significantly enhance the benefits of a regional conservation planning effort. We also urge a focus on infill opportunities and development near existing infrastructure which would reduce the need to utilize undeveloped and prime agricultural lands for new development. This type of planned growth could provide for development while minimizing traffic congestion, adverse air and water quality effects, and degradation to the environment and sensitive, threatened, and endangered species habitat. Furthermore, urban development within a "deep floodplain" such as the Natomas Basin, should be considered very carefully and designed to

G2-3 account for the substantial flood risk within this Basin. We note that the Metro Air Park DEIS anticipates a 500 percent increase in the 100-year peak storm flows in the Natomas Basin from urban buildout (pg. 4.8, Metro Air Park DEIS).

G2-4 Given the explosive growth in the area and the number of sensitive species, we urge adoption of more frequent HCP review periods or a 10- to 20-year permit duration. More frequent reviews or a shorter permit duration would reduce potential irreversible adverse impacts to habitats and species, if growth projections, development rates, and species conservation assumptions prove to be significantly incorrect. We strongly support the proposed compliance monitoring, basin-wide biological monitoring, site-specific biological monitoring, and annual reporting requirements. It is critical that these monitoring activities are implemented now and adequately funded.

G2-5 Based on our review, we have concerns regarding the scientific support for the mitigation ratio, the feasibility of implementing the HCP due to the cost and availability of potential reserve lands, the cumulative effects analysis, and the environmental consequences analysis. These concerns are described more fully in the attached Detailed Comments. Based upon these concerns, we have rated the DEIS and proposed Natomas Basin HCP/ITP as EC-2, Environmental Concerns - Insufficient Information (see attached "Summary of the EPA Rating System"). We appreciate the opportunity to review this DEIS. Please send two copies of the FEIS to this office at the same time it is officially filed with our Washington D.C. Office. If you have any questions, please call me at (415) 972-3854 or Laura Fujii, of my staff, at (415) 972-3852.

Sincerely,

Lisa B. Hanf, Manager
Federal Activities Office

Enclosures: Detailed Comments (5 pages)
Summary of the EPA Rating System

MI#003584
Filename: natomasHCPdcis.wpd

cc: Patricia Roberson, US Army Corps of Engineers
David Zezulak, CDFG
Gerry Kamilos, Metro Air Park Association
John Roberts, Natomas Basin Conservancy
Sacramento Area Flood Control Agency (SAFCA)
Grace Hovey, City of Sacramento
Paul Junker, Sutter County
Sacramento County Planning Department

DETAILED COMMENTS

The Mitigation Ratio

1. The Natomas Basin Habitat Conservation Plan (Natomas Basin HCP) provides for habitat compensation of one-half acre of mitigation land for every acre of land developed within the Natomas Basin HCP area. We acknowledge that the actively managed, restored habitat reserves would provide greater habitat value than existing rice fields and habitat which will be converted to urban uses. However, the Draft EIS (DEIS) does not provide a scientific basis for the proposed mitigation ratio. For instance, there is no clear demonstration that the value of habitat lost would be fully replaced by the proposed habitat reserves. It is also our experience that habitat conservation plans usually provide for a mitigation ratio of 1 acre of mitigation land for every acre of land lost or equivalent compensation in the form of additional conservation measures or mitigation fees (e.g., Roosevelt Reservoir HCP, Clark County Multispecies HCP). We note that Alternative 2 is the environmentally preferable and superior alternative because this alternative
G2-6 provides the greatest mitigation (i.e., 17,763 acres of habitat reserves) (pg. 2-58).

Recommendations:

The Final EIS (FEIS) should address whether the proposed habitat reserves will fully compensate for the value of habitat lost. We strongly recommend that the scientific basis for the proposed mitigation ratio be provided in the FEIS (e.g., a demonstration that habitat values of habitats to be destroyed and conserved are equivalent).

We urge consideration of a greater mitigation ratio than one-half acre to one acre of developed land. Such a mitigation ratio would be more comparable to those provided by other HCPs and would enhance the equitable application of ESA requirements for all developers.

Feasibility of Implementing the HCP

G2-7 1. EPA is concerned that the potential cost and unavailability of habitat reserve lands could significantly hinder successful implementation of the Natomas Basin HCP. For instance, land speculation, which has greatly increased the cost of mitigation land, has already occurred (i.e., Settlement Agreement lands, Natomas Basin HCP, pg. VI-5). In fact, the DEIS states that identifying specific reserve areas is considered infeasible because of the concern that speculation would artificially inflate land costs (pg. 2-57). Other acquisition requirements such as availability of willing sellers and sufficient water rights to support wetland habitat goals could also hinder obtaining habitat reserve lands.

Recommendation:

We recommend that the FEIS provide a general comparative analysis for each alternative which evaluates the availability of reserve lands (e.g., willing sellers, potential cost, lands that meet the acquisition criteria), availability of adequate water rights for those lands, and whether current and projected mitigation fees will be sufficient to purchase and manage required habitat reserve lands in perpetuity.

G2-7

Cumulative Impacts Analysis

1. EPA is concerned with the long-term, cumulative implications of mitigating the impacts of incidental take solely through increased mitigation funding and acquisition of habitat reserves. We advocate alternatives which focus on avoidance and minimization of potential incidental take in addition to more habitat preservation.

G2-8

Recommendation:

The FEIS should clearly and persuasively demonstrate that the proposed Natomas Basin HCP will result in improved on-the-ground conditions which would not otherwise be achieved through existing conservation and resource management plans.

G2-9

2. Although the DEIS clearly states that the National Environmental Policy Act (NEPA) defines cumulative impacts as "the impact on the environment which results from the incremental impact of the action when added to other (emphasis added) past, present, and reasonably foreseeable future actions" (pg. 4-3), the cumulative impacts analysis appears to consider only other closely related regional conservation activities (e.g., pgs. 4-127, 4-158). While we recognize that the cumulative impact analysis is focused on effects of implementing the Natomas Basin HCP, issuance of the incidental take permits and approval of the Natomas Basin HCP would enable urban development to proceed. This urban development will have significant cumulative impacts on the environment of the Natomas Basin. The goal of evaluating cumulative effects is to provide decisionmakers and the public with an overall picture of reasonably foreseeable impacts to resources of concern.

Recommendation:

The FEIS should document cumulative impacts from past, present and reasonably foreseeable actions that affect the same resources being addressed by the proposed Natomas Basin HCP. For example, the FEIS should integrate into the cumulative impacts analysis for each resource the potential impacts of urban development plans instead of providing only a summary of findings from previous environmental analyses (i.e., Appendix C). Other projects which should be considered in the cumulative impacts analysis are local flood control projects (e.g., levee improvements, American River Watershed Long-Term Study), agricultural practices, irrigation practices, as well as other conservation actions.

In addition, we recommend the environmental evaluation describe, as a whole, the combined environmental consequences of the Natomas Basin HCP, its habitat reserves, proposed urban development, and indirect and secondary effects of the urban development permitted by the incidental take permits (ITPs).

G2-9

Environmental Consequences Analysis

1. Alternative 4, Reduced Potential for Incidental Take, would reduce the urban development area covered under the incidental take permits (ITPs) from 17,500 acres to 12,000 acres. The DEIS does not appear to evaluate the implications of this reduced acreage of urban development.

G2-10

Recommendation:

It is our belief that a reduction in the urban development area covered by the ITPs could have environmental and socioeconomic consequences which should be thoroughly explored in this environmental analysis. We recommend the FEIS evaluate the consequences and implications of this reduced level of urban development.

2. The DEIS states that the specific effect of a potential increase in aircraft bird strikes at the Sacramento International Airport was not evaluated in prior environmental documents for proposed urban development (Public Health and Safety Section, pg. 4-159). While the potential for increased bird strikes is evaluated for the Natomas Basin HCP and closely related regional conservation actions, there is no evaluation of the potential effects of urban development, permitted by the ITPs, on the bird strike risk at the Sacramento International Airport.

G2-11

Recommendation:

Additional urban development, permitted by the ITPs, could attract more birds (e.g., new roosting sites and food sources) and result in airport encroachment issues such as aircraft noise and diesel fumes. We recommend the FEIS consider evaluating potential effects of urban development on the risk of increased bird strikes and encroachment issues at the Sacramento International Airport.

Covered Species

G2-12

1. A total of 101 special-status species were identified by the Service with the potential to occur in the Natomas Basin (pg. 3-22). Of these 101 species, 22 species were chosen for coverage by the Natomas Basin HCP. Many of the species not chosen for coverage are not known to inhabit or use Natomas Basin. However, some of the covered species (e.g., Delta tule pea, Colusa grass) are also not known to inhabit or use Natomas Basin. Thus, it is not clear why some species were chosen for coverage while others were not.

Recommendation:

We recommend the FEIS include a more detailed explanation for why certain species were selected or not selected for coverage by the Natomas Basin HCP. For instance, we recognize that some of the covered species may have been selected because of the potential for their reintroduction to habitat on the actively managed habitat reserves. If this was the reason for their inclusion as covered species in the Natomas Basin HCP, it should be so stated in the FEIS.

G2-12

2. It is our understanding that California has a state list of "fully protected" species which forbids any harm to these species. Are any of the special-status species which may occur in the Natomas Basin "fully protected" species?

G2-13

Recommendation:

We recommend that the FEIS include a short description of California's "fully protected" species requirements. The FEIS should describe whether these requirements would be apply to any of the species potentially affected by proposed urban development, reserve management, or other proposed activities in the Natomas Basin.

General Comments

1. The DEIS states that a shorter permit period (e.g., 25 years) was not carried forward for detailed analysis because it would not allow adequate time for the habitat reserve system to be fully developed and assessed for effectiveness (pg. 2-54). However, the scientific basis or underlying rationale for this conclusion is not provided.

Recommendation:

G2-14

The FEIS should provide the scientific basis, data, or detailed rationale for the conclusion that the habitat reserve system would not be developed enough to assess its effectiveness under shorter permit terms. We believe effectiveness monitoring should begin with initial establishment of habitat reserves and be a continuous monitoring effort. We note that the Natomas Basin Conservancy is already actively managing acquired habitat reserve lands within the Natomas Basin. Thus, an assessment of, at least, the preliminary effectiveness of mitigation could be implemented now.

G2-15

2. We recommend subsequent environmental analysis for project-level actions (e.g., specific urban development projects or reserve restoration projects). We believe such follow-up environmental planning is critical given the geographic and temporal scope of the Natomas Basin HCP, the number of proposed covered species, and the possible reliance on adaptive management strategies.

G2-16

3. If available, the FEIS should include a summary of existing scientific evidence documenting the effectiveness of habitat conservation planning and restoration in assuring species viability. We commend the strong commitment to monitoring, surveys, and adaptive management; especially given the possible limited amount of specific scientific information regarding ecological mechanisms and specific species needs. The FEIS should describe possible fallback options if special-status species and critical habitat continue to experience a decline.

G2-17

4. We recommend the FEIS provide an acronym list. Also, the major water delivery canals (e.g., Cross Canal, North main Canal) and waterbodies (e.g., Fisherman's Lake) on the maps in the EIS (e.g., Figure 1-2a and 1-2b) should be labeled.

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

[1]From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

STATE OF CALIFORNIA - THE RESOURCES AGENCY GRAY DAVIS, Governor

DEPARTMENT OF FISH AND GAME
SACRAMENTO VALLEY AND CENTRAL SIERRA REGION
1701 NIMBUS ROAD, SUITE A
RANCHO CORDOVA, CALIFORNIA 95670
Telephone (916) 358-2900

December 5, 2002

Steve Thompson, Field Supervisor
U.S. Fish and Wildlife Service
2800 Cottage Way W2605
Sacramento, CA 95825-1846

Re: Draft Natomas Basin Habitat Conservation Plan (July 2002)

Dear Mr. Thompson,

G3-1 The California Department of Fish and Game (Department) appreciates the opportunity to review and provide comments on the July 2002 Draft Natomas Basin Habitat Conservation Plan (NBHCP or Plan), the Draft Implementing Agreement (IA), and the August 2002 Draft Environmental Impact Report/ Environment Impact Statement (Draft EIR/EIS). The NBHCP is a multi-species habitat conservation plan designed to support applications for "incidental take permits" (ITPs) from the Department and U.S. Fish & Wildlife Service (Service) under the State and federal Endangered Species Acts. The City of Sacramento (City) and the County of Sutter (Sutter) submitted the NBHCP to the Service earlier this year in support of individual applications for ITPs under the federal Endangered Species Act (ESA) (16 U.S.C. § 1531 et seq.). The Department anticipates similar applications from the City and Sutter under the California Endangered Species Act (CESA) (Fish &. G. Code, § 2050 et seq.) during 2003. Any such applications will be processed by the Department in accordance with the Fish and Game Code and regulations governing the issuance of ITPs under CESA. (See generally Cal. Code Regs., tit. 14, § 783.0 et seq.)

G3-2 In general, the Draft EIR/EIS sets forth the City and Sutter's, and the Service's analysis of the potential environmental impacts that could result with issuance of ITPs to the City and Sutter based on the NBHCP. The City, Sutter, and Service prepared the Draft EIR/EIS to fulfill their respective "lead agency" obligations under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.). The Draft EIR/EIS, in this respect, also analyzes a reasonable range of alternatives to the proposed Plan, as well as potential environmental impacts associated with establishment and maintenance of the habitat reserves contemplated by the NBHCP, and the possible future issuance of ITPs to other entities in the Natomas Basin. Against this backdrop, the Department submits the comments set forth below as a trustee and responsible agency under CEQA. (See generally Pub. Resources Code, §

21069; CEQA Guidelines, §§ 15381, 15386.)[1] In that capacity, the Department limits its comments to those activities that fall within its area of expertise as the State's trustee agency for fish and wildlife, and to those activities associated with the NBHCP that it may be required to approve or carry out as a responsible agency. (Pub. Resources Code, § 21153, subd. (c); CEQA Guidelines, §§15086, subd. (c), 15096, subd. (d); see also Fish & Game Code, §1802.)

The Department also submits these comments as part of its ongoing efforts to consult with the City and Sutter regarding their prospective applications for ITPs under CESA. At the request of the City and Sutter, the Department provided previous comments regarding earlier administrative drafts of the revised NBHCP. (See Cal. Code Regs., tit. 14, § 783.2, subd. (b).) In general, the Department appreciates the opportunity to consult with project proponents and we commend the City and Sutter's effort to seek the Department's input during the local agency planning process. Even so, the Department emphasizes its continuing obligation to exercise its independent judgment during the City and Sutter's ongoing review of the NBHCP, as well as during its review of any permit application that the Department may face in the future. As a consequence, the Department's comments set forth below, as well as our previous comments, should not be interpreted as an approval, tacit or otherwise, of mitigation measures that may ultimately be adopted by the City or Sutter, or as an approval, tacit or otherwise, of any conditions that may be imposed by the Department during a future permitting action under CESA. In short, the Department has yet to review the adequacy of the revised NBHCP under CESA and will only do so during its formal review of ITP applications submitted at some point in the future.

G3-2

Against this backdrop, the Department would like to emphasize a number of important points for the sake of introduction. First, the Department recognizes that the present version of the NBHCP updates and revises the 1997 NBHCP. As is well known, the Department and Service relied on the earlier version of the Plan to authorize incidental take by the City within a portion of the Natomas Basin. The Department, in particular, issued a management authorization to the City in December 1997, under former Fish and Game Code section 2081. (See Fish & G. Code, § 2081.1.) A State trial court upheld the Department's authorization in February 2000, and the trial court ruling became final in May 2001, after the Third Appellate District dismissed an appeal filed by Friends of the Swainson's Hawk and other petitioners. (See *Friends of the Swainson's Hawk et al. v. California Depart. of Fish and Game* (Super. Ct. Sacramento County, 2000, No. 98CS01131); *Friends of the Swainson's Hawk et al. v. California Dept. of Fish and Game* (May 30, 2001, C034952).) The Department's existing management authorization to the City remains legally valid as a consequence.

G3-3

In contrast to the Department's management authorization based on the 1997 NBHCP, a federal trial court set aside the ITP issued to the City by the Service. (*National Wildlife Federation v. Babbitt* (E.D.Cal. 2000) 128 F.Supp.2d 1274.) The

G3-4

[1] The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

revised NBHCP is intended, as a result, to address various shortcomings identified by the court during the federal litigation. Based on our preliminary and ongoing review, the Department believes the revised NBHCP addresses the issues identified by the court during the federal litigation. In addition, the Department believes the revised NBHCP improves upon the earlier version of the Plan.

G3-4

Our second point of introduction concerns Reclamation District No. 1000 and the Natomas Central Mutual Water Company, which the NBHCP refers to collectively as the "Water Agencies." The NBHCP contemplates participation by the Water Agencies, but also includes some inconsistent statements regarding the role the Water Agencies played in efforts to revise the Plan, as well as the existence or status of an application by the Water Agencies to the Service for an ITP based on the current version of the Plan. These issues aside, the Department commends the Water Agencies' commitment to the NBHCP. The Water Agencies, for example, just like the City and Sutter, sought the Department's input some months ago regarding the contents and prospect of an application to the Department for an ITP based on the NBHCP. (See generally Cal. Code Regs., tit. 14, § 783.2, subd. (b).) The Water Agencies have yet to follow up on the prior consultation and, as a consequence, the Department is skeptical that the revised NBHCP includes sufficient information to support an application to the Department by the Water Agencies for an ITP under CESA. (*Id.*, §§ 783.2, subd. (a), 783.3, subd. (a).) The Department stands ready, however, to re-initiate consultation with the Water Agencies to provide input regarding any such application.

G3-5

The possible application by the Water Agencies aside, the Department emphasizes that the Draft EIR/EIS includes an analysis of environmental impacts associated with the Water Agencies' potential participation in the NBHCP. The Draft EIR/EIS does a reasonable job, in fact, describing the potential environmental impacts associated with activities by the Water Agencies that may be covered by the NBHCP at some point in the future. The level of detail in the analysis is appropriately commensurate with the less-than-specific detail as to the scope and nature of the Water Agencies' activities for which they may seek coverage under CESA at some point in the future.

G3-6

Our third point of introduction concerns the Department's prior comments regarding the South Sutter County Specific Plan. The Department provided comments to Sutter in December 2001, and April 2002, regarding the environmental impact report for the proposed specific plan. The Department's letters take issue with Sutter's environmental analysis of project-related impacts on biological resources and the Department understands the proposed project is the subject of pending litigation. While the Department is aware of the legal presumption of adequacy attached to Sutter's document during the course of litigation (see Pub. Resources Code, § 21167.3), the Department emphasizes its obligations under CEQA with respect to any ITP application that Sutter may submit to the Department. (Cal. Code Regs., tit. 14, § 783.3, subd. (a).) In this respect, the Department trusts that Sutter will provide appropriate CEQA analysis as a lead agency to the Department in support of any permit application under CESA

G3-6 that is based on the NBHCP.

G3-7 Finally, the Department believes the NBHCP would benefit from additional clarity regarding obligations of the potential permittees relative to the Plan Operator. The NBHCP should state more clearly that the local agency permittees may not and cannot completely delegate their obligations to implement and comply with the NBHCP to the Plan Operator. In this respect, the NBHCP should clarify that the local agency permittees are obligated to fulfill the requirements of the Plan in the event the Plan Operator is unable to do so for any reason. The Department recognizes, of course, that the Plan Operator is also a permittee under the NBHCP. The Plan Operator is charged with certain obligations under the NBHCP that are independent of its obligations as an agent of the prospective local agency permittees. In this respect, the NBHCP should clarify that the Plan Operator must fulfill its independent obligations under the Plan, but that the local agency permittees may not completely delegate responsibility for their own permitting obligations under the NBHCP to the Plan Operator.

With these introductory comments in mind, the Department's specific comments regarding the revised NBHCP and the related documents follow below.

Habitat Reserves

G3-8 The Department understands the practical difficulties associated with designating specific areas for habitat reserves. Some of these difficulties are discussed in the NBHCP at pages VII-68 and 69. Yet, with respect to Swainson's hawk, the Plan and related conservation strategy relies on and commits to no development within the one-mile Swainson's hawk zone. The Department commends the City and Sutter's commitment to this important component of the conservation strategy for Swainson's hawk. Even so, the Department believes the conservation strategy will be more effective if the NBHCP includes a requirement that upland habitat reserves contemplated by the Plan all be acquired within one mile of the Swainson's hawk zone. In the Department's view, such a requirement would allow for reserve acquisition flexibility and willing sellers, and result in a connected, robust permanently located and protected reserve system for Swainson's hawk. The current analysis would benefit from consideration of this issue.

G3 9 Under the proposed Plan, reserve lands may be sold and relocated as the habitat reserve system develops. The Department is concerned about this aspect of the Plan and believes that additional detail is warranted to ensure that related impacts are avoided to the extent feasible, and minimized and fully mitigated. In the Department's view, the "trade-out" and relocation of established reserves could result in the temporal loss of habitat functions and values under the operating conservation program unless there are adequate safeguards. In this respect, the Department believes the NBHCP would benefit from additional detail as to how the habitat functions and values of existing reserves will be adequately mitigated in the event the trade-out provision in the Plan is invoked by the Plan Operator. It is not reasonable to assume,

for example, that covered species benefiting from an existing reserve will necessarily "follow" the Plan Operator to a new reserve site. Moreover, without the benefit of a habitat reserve designation, covered species benefiting from and occupying the former reserve could suffer adverse effects that should be addressed in the Plan. Potentially feasible mitigation measures to address the temporal loss of habitat functions and values where the trade-out provision is invoked include: (1) acquisition of an equal amount of reserve lands; (2) restoration and/or maintenance of new reserve lands to provide habitat functions and values comparable to the former reserve; and (3) maintenance of the habitat functions and values on the former reserve until the new reserve is fully established biologically.

The Department believes the analysis addressing the issues detailed in the preceding paragraph should also consider an additional mitigation requirement to offset the temporal loss of habitat functions and values at the former reserve site. Once habitat reserves are established, the Department believes the reserves will act as a biological sink drawing covered species to the site. This biological benefit afforded by the reserves will not be entirely offset by relocating the reserve in another place, particularly if the former reserve is de-watered, converted from managed marsh to rice, converted from rice to another agricultural use, or no longer managed for the benefit of covered species. In the Department's view, the NBHCP should address the prospect of such temporal impacts and provide appropriate mitigation at a minimum habitat replacement ratio of 1:1.

Finally, the Department believes the additional analysis highlighted in the two proceeding paragraphs should clarify whether or the extent to which former reserves could be developed as part of the 17,500 acres of development contemplated by the proposed Plan. If a former reserve is subsequently developed under the NBHCP, for example, the Plan should clarify that such development is contingent upon the payment of habitat mitigation fees or compliance with the other mitigation alternatives set forth in the Plan. In the alternative, if development of former reserves is not contemplated as part of the 17,500 acres of contemplated development, the NBHCP should make clear
G3-9 that any such development will require independent authorization by the Department under CESA and other pertinent provisions of the Fish and Game Code.

G3-10 The reserve habitat ratio in the NBHCP allows for 50% of the mitigation acreage to be in rice, although page VII-67 states that managed marsh "provides significantly more beneficial edge habitat for the snake than a typical rice field." Sections II-10 and 11 also state that Giant garter snakes prefer permanent freshwater marshes and low gradient streams. Likewise, at page VII-70, the NBHCP discusses rejected alternatives - including one comprised entirely of managed marsh - based on economic and biological considerations, stating that the proposed percentage of reserve habitat types "may not be biologically optimal." Despite all of these comments, the Plan states that the biological necessity of more marsh, as opposed to lands farmed for rice, must be demonstrated before the required percentage of managed marsh will be increased. In the Department's view, the last statement conflicts with the prior highlighted statements

in the NBHCP and, more importantly, with existing scientific literature indicating that Giant garter snake prefer marsh habitat to rice habitat. Along these same lines, the Department believes the Plan would benefit from additional analysis to support the conclusion that the proposed percentage of reserve lands held in rice as opposed to managed marsh will fully mitigate impacts to the covered species. Finally, the Plan should clarify that the Plan Operator has the discretion to convert rice to managed marsh in the event that rice production becomes unprofitable in the future. As a corollary, the Plan should also specify that no such discretion exists with respect to the conversion of reserve lands in managed marsh to rice production, regardless of the required percentage of managed marsh.

G3-10

The Department is concerned about biological connectivity between the habitat reserves contemplated by the NBHCP, particularly with the conflicting information regarding the Water Agencies' present and future participation in the current conservation planning effort. The Department is concerned because the biological conservation strategy for the Giant garter snake and other aquatic covered species depends on functional habitat connectivity between reserves. In our view, the NBHCP would be improved with additional detail as to how biological connectivity between current and proposed habitat reserves will be maintained through the canal system that is currently owned and operated by the Water Agencies. The analysis should focus, in particular, on the biological efficacy of the conservation strategy as it relates to reserve connectivity even if the Water Agencies choose not to participate in the Plan. The additional analysis is crucial in our view because the current approach to the issue appears to be based primarily on an annual obligation by the Plan Operator to consult with the Water Agencies regarding water management and potential canal closures or piping. More assurance of canal connectivity between reserves is necessary.

G3-11

The additional analysis regarding reserve connectivity should specifically address a number of potential mitigation measures. One potentially feasible mitigation measure that should be considered is a prohibition on Plan Operator approval to grant access across reserve lands for canal modification unless the authority for such access already exists. In the alternative, Plan Operator approval to access reserve lands for canal modification could be conditioned on Department approval. In addition, the Department believes the following measures may help to ensure the effectiveness of mitigation for canal connectivity and that they should be addressed with respect to that issue, as well as for the conservation strategy for the Plan as a whole: (1) designating the Department as a third party beneficiary on all conservation easements held by the Plan Operator for reserve lands; (2) granting the Department a conservation easement on all reserve lands held by the Plan Operator in fee title; (3) acknowledging that any discretionary canal modification by the Water Agencies, including de-watering will result in significant impacts subject to CEQA; and (4) acknowledging that canal modification and de-watering of canals that provide biological connectivity to habitat reserves will require compliance with CESA and other pertinent provisions of the Fish and Game Code. Finally, the Department emphasizes that it will likely require compliance with measures (1) and (2) as part of any ITP issued under CESA that relies on the NBHCP.

Reducing habitat fragmentation through compact development is identified as a key conservation goal for the NBHCP. To this end, the Plan states that the City and Sutter, and presumably any other local agency permittees subject to the NBHCP, will "promote connectivity between reserves and surrounding agriculture[,]" and that such agencies, "through their adopted general plans, community plans, and specific plans, will *promote* compact urban development within limited *portions* of the Natomas Basin." (Emphasis added.) The Department emphasizes that these commitments are only meaningful from a biological standpoint to the extent they exist in the context of the local agencies' planning and zoning structure. The Plan, in this respect, should include a specific requirement that any local agency permittee's planning and zoning structure include such binding policies, designations, and commitments.

G3-12

On a related note, the NBHCP indicates that an analysis is required during the mid-point review of the Plan to analyze, among other things, whether the remainder of the 1,100 acres in the Sutter County industrial/commercial reserve is or is becoming fragmented. Consistent with the statements in the preceding paragraph, if the Plan is intended to ensure fragmented development in the Natomas Basin does not occur, Sutter's specific land use policies to achieve this result should be identified and incorporated by reference in the NBHCP.

Finally, the NBHCP requires that reserve lands be in habitat blocks that are a minimum of 400 acres in size to "support long-term viability of Covered Species." Exceptions to this standard are allowed if the Plan Operator "determine[s] that smaller reserves have biological significance and [that they] should be preserved[,]" including as a condition of the Adaptive Management Program. In the Department's opinion, no exception to the 400-acre minimum reserve size should exist for reserves that provide mitigation for Giant garter snake and Swainson's hawk. In our view, exceptions to the minimum size requirement for reserves should only exist for reserves that provide habitat for covered plants and invertebrates exclusively.

G3-13

As regards the 400-acre minimum reserve requirement, as well as the 2,500-acre minimum, the Department believes the NBHCP would benefit from additional detail regarding how these standards will be applied while the habitat reserve system is established over time. As currently drafted, the NBHCP makes clear that the reserve acre minimums must be met at buildout, but the Plan provides little detail as to how the minimums should be applied in the interim. The Department believes the Plan should address the issue. The Department suggests an approach requiring progress towards the minimum reserve requirements that is proportionate over the term of the contemplated permits to the amount of development permitted and the number of acres of habitat reserves acquired. Additional consultation with the Department on this issue will likely be necessary. Even so, we emphasize that the minimum sizes of the contemplated reserves are a critical component of the proposed Plan that must be achieved to ensure the effectiveness of the operating conservation program.

G3-14

Covered Species

G3-15 The Department recommends that the NBHCP include a species mitigation matrix that lists all the species impacts and mitigation measures included in the Plan. The matrix would provide a concise, comprehensive method for the public to evaluate how the Plan fully mitigates impacts for each covered species. The Department will need such a matrix in any event to support issuance of any incidental take permit to the City or Sutter under Fish and Game Code section 2081, subdivision (b).

G3-16 The Department believes the NBHCP would benefit from additional detail regarding the conservation strategy for Swainson's hawk. The issue is of great concern to the Department as the State's trustee agency and, as the City, Sutter, and Service know, the matter continues to receive considerable attention from a number of parties involved in the previous State and federal litigation. The Department, in this regard, appreciates the City's letter of November 20, 2002, regarding Swainson's hawk mitigation under the NBHCP and believes that the Plan would benefit from some of the analysis in the letter. The Department also believes that the Plan would benefit from additional detail regarding a number of important points highlighted in the table that appears on page 4 of the City's letter. In general, the table summarizes the City's conclusion that the conservation strategy provides a total of nearly 4,300 acres of Swainson's habitat, including the 2187.5 acres of upland habitat reserves managed specifically for the benefit of the species. Approximately 1,500 acres of the total land area identified in the table is tied to upland edges of managed marsh reserves and the levee and upland areas of reserve lands farmed for rice. The NBHCP should clarify how the numbers were derived, explain that the 1,500 acre figure is not a product of "double counting," and detail management practices for these specific areas, as appropriate, that will further benefit Swainson's hawk. Finally, with respect to Swainson's hawk, the Department believes the NBHCP would benefit from an explanation as to why additional mitigation for the species is not necessary to meet State standards under CESA. The Department believes this additional analysis is important, particularly because the proponents of Metro Air Park provided an additional 200 acres of land to mitigate the loss of a single Swainson's hawk nest tree as part of their permit application for an ITP from the Department.

G3-17 The Department believes the NBHCP and related documents should be revised to clarify the circumstances under which the take authorization for covered but currently unlisted species will take effect under Fish and Game Code section 2081, subdivision (b). The matter is currently addressed in various portions of the NBHCP, as well as the draft IA in sections 3.3.5 and 6.2.4. The documents currently describe the take authorization as automatic at the time the covered but currently unlisted species are designated as a candidate, endangered or threatened species under CESA. The language is substantially similar to language in the Metro Air Park ITP issued by the Department earlier this year. In contrast, the City's existing management authorization contemplates a different approach, reflecting practices by the Department prior to substantial changes to CESA in 1998. The Department believes the approach

contemplated in the revised NBHCP should be changed in one important respect. In the Department's view, take authorization for covered but unlisted species should take effect after a brief review of the status of the species at issue under the NBHCP at the time the species is designated as candidate under CESA. We believe that the permittees at that time should demonstrate through a report that there are no changed biological conditions with respect to the species under the conservation program, that reserve lands provide habitat functions and values for the species, and that the species actually occupies reserve lands established pursuant to the NBHCP. Under this approach, the assurances that may be provided by the Department through the issuance of an ITP based on the Plan will take effect following the Department's review
G3-17 of the status report. Revisions to the NBHCP and IA to reflect this point will likely be necessary.

The NBHCP proposes coverage for three species that are State listed endangered plants generally found in and around vernal pool habitat. The Department believes the NBHCP would benefit from additional information regarding how the conservation strategy of avoidance and on-site preservation will minimize and fully
G3-18 mitigate the impacts to these species. The additional analysis should specifically address cumulative and indirect effects associated with habitat isolation and urban development impacts. To the extent additional detail regarding minimization and mitigation measures is needed, the Plan should identify and establish a minimum size for on-site vernal pool mitigation areas that include buffers, and watershed and upland areas for pollinators. In addition, the discussion should consider vernal pool creation on reserve lands as a potential mitigation measure. The Department emphasizes, however, that created vernal pools could only be used for mitigation under the NBHCP after species establishment criteria are met. Moreover, the use of created vernal pools as mitigation for related impacts is only appropriate at Department-approved conservation/mitigation banks with available, relevant credits.

Monitoring

G3-19 Development of the Biological Effectiveness Monitoring Program (BEMP) as discussed at page VI-14, for example, should include peer and public review.

The NBHCP indicates that the final BEMP will be completed within two years following permit issuance. This time frame conflicts with the commitment to initiate monitoring on lands already acquired. Site specific biological monitoring plans should
G3-20 be prepared following the Department's approval of the BEMP. Site specific biological monitoring plans for new reserve acquisitions should be prepared when 40 or more acres of new reserve lands in one location are acquired. Subsequent reserve acquisitions should also comply with this condition within a six month period, but only with approval from the Technical Advisory Committee.

G3-21 The monitoring data must be maintained in a spatial data system to allow for analysis, data sharing, and reporting.

General comments

G3-22 Appendix B of the NBHCP includes a Department staff report regarding mitigation for impacts to Swainson's hawk in the Central Valley of California. The staff report, however, is not the biological "benchmark" governing the adequacy of the NBHCP under CESA. The staff report does not, in fact, apply to the NBHCP and the Department believes it should not be included in the Plan as an appendix.

G3-23 The NBHCP refers to rice farming best management practices in a number of places, including page IV-29. If the rice farming best management practices are considered mitigation, they should be specifically identified and incorporated into the Plan as part of the proposed conservation strategy.

G3-24 At page IV-29, the NBHCP states that the ultimate goal of the proposed reserve system is to "establish self-sustaining natural communities capable of supporting the appropriate Covered Species." The Department disagrees that the goal of self-sustaining "natural communities" will be achieved because most of the reserves will either be in managed marsh or farmed for rice production. The existing statement in the NBHCP should be deleted or revised accordingly.

G3-25 At page VI-2, the NBHCP states that developers covered by the Plan would be allowed to establish mitigation banks that could be used to sell credits to others in the basin. In the Department's view, the NBHCP should clarify that, while developers may hold their own excess acreage for future mitigation, developers wishing to sell mitigation credits to others would not be authorized to do so without full compliance with the Department Mitigation Banking Policy and procedures.

G3-26 At page VI-22, the NBHCP refers to "significant land use changes outside of the reserve system." The meaning of this phrase should be clarified.

G3-27 At page VI-22, the NBHCP refers to "uncertainties associated" with "Plan implementation." The Plan should identify and clarify the "uncertainties" referred to in the existing text. The NBHCP should then explain how the Plan ensures these uncertainties will not adversely affect the biological success of the operating conservation program.

G3-28 At page VI-23, the NBHCP refers to "research needs for successful implementation of the Plan." The Plan should clarify what research needs are contemplated and describe how they are analyzed in the economic analysis.

G3-29 The NBHCP, at page VI-23, refers to a time period when biological monitoring threshold limits will be defined and implemented. Because these thresholds are relevant to the proposed adaptive management program, the Department recommends that greater detail be provided.

G3-30 At page VI-27, the NBHCP mentions the prospect of changes to the operating conservation program in response to the adoption of a Swainson's hawk recovery plan. The Plan would benefit from greater detail regarding the range of potential changes that could occur in response to a recovery plan. Detail commensurate with that provided for the Giant garter snake is appropriate to the extent such potential changes are reasonably foreseeable and not speculative.

G3-31 At page VI-28, the NBHCP refers to an overall program review to assess the "success of the 25% managed marsh/50% rice/25% upland for supporting Giant garter snake[.]" The review should extend to all covered species.

G3-32 At page VI-36, the NBHCP refers to required notice to the Department and Service within seven days of changed circumstances related to toxics. The required notice should not be limited to toxics. Rather, the NBHCP should be revised to require notice to the Department and Service of changed circumstances generally.

G3-33 At page VI-37, the NBHCP discusses non-participation in the Plan by local land use agencies and the obligation to assess protected habitat in the event of such non-participation. The stated purpose of the analysis is to assess the rough proportionality between reserves and mitigation, and impacts to covered species resulting from activities covered by the NBHCP. The Plan, however, does not appear to require tracking of the types of habitat impacted by covered activities. In our view, such tracking should be required. Doing so will facilitate the required analysis and serve as a gauge to ensure that habitat protection and mitigation keeps pace with impacts to specific habitat types.

Editorial Corrections

G3-34 Page VI-8, 4th paragraph. Change "MOAS" to "MOAs," and delete "moas."

G3-35 Page IV-22, 4th paragraph. Existing text refers to Figure 14. The figure is mis-labeled and the reference in the text should be corrected.

G3-36 Page VI-28, last line on page. Insert "CESA."

G3-37 Page VI-40, Item (13). For revisions not requiring an amendment, insert "goals" after "biological" in the first sentence.

G3-38 Page VI-41, Item (2). The amendments section should also include changes to CESA.

G3-39 Page VI-42, 2nd paragraph. Delete the reference to amphibians.

G3-40 Figure 13. The figure should be updated to depict the four Swainson's hawk nests removed in 2002. The figure should also reflect the Swainson's hawk zone as

G3-40 referenced on page IV-22.

G3-41 Figure 15. The figure does not contain the identified graphical data.

G3-42 Figure 16. The figure does not accurately depict the identified data due to an error in shading of the represented parameters.

* * *

G3-43 In closing, the Department appreciates the opportunity to review and provide comments regarding the revised NBHCP. We commend the City, Sutter and Service's efforts to date. The Department is committed to the long-standing yet unfinished effort to devise a balanced conservation strategy in the Natomas Basin and we look forward to the future work required to achieve that end.

If you have questions and would like to discuss any of these items please contact Terry Roscoe, Habitat Conservation Supervisor, at (916)358-2382, or Jenny Marr, Staff Environmental Scientist, at (530)895-4342.

Sincerely,

BANKY E. CURTIS
Regional Manager

cc: Tom Lee
Carol Shearly
City of Sacramento

Larry Combs
County of Sutter

Ron Rempel
Sandra Morey
CDFG Habitat Conservation Division

Michael Valentine
John Mattox
CDFG Office of the General Counsel

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-4959
FAX (916) 653-9531

(13)

Flex your power!
Be energy efficient!

October 7, 2002

Ms. Grace Hovey
City of Sacramento
1231 "I" Street, Suite 300
Sacramento, CA 95814

Dear Ms. Hovey:

Re: *City of Sacramento and Sutter County Draft EIR/EIS Draft Natomas Basin Habitat Conservation Plan (NBHCP); SCH# 1997062064*

The California Department of Transportation (Department), Division of Aeronautics, reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to CEQA. The following comments are offered for your consideration.

The proposal is for the establishment of a multi-species habitat conservation program to "minimize and mitigate the expected loss of habitat" in the Natomas Basin area. As discussed in the Draft EIR/EIS, there is a concern for increased "conflicts between waterfowl and aircraft from Sacramento International Airport."

G4-1 The need for compatible and safe land uses near airports in California is both a local and a state issue. Along with protecting individuals who reside or work near an airport, the Division of Aeronautics views each of the 250 public use airports in California as part of the statewide transportation system, which is vital to the state's continued prosperity. This role will no doubt increase as California's population continues to grow and the need for efficient mobility becomes more crucial. We strongly feel that the protection of airports from incompatible land use encroachment is vital to California's economic future.

G4-2 The proposal should be submitted for a consistency determination to Dave Boyer with the Sacramento County Airport Land Use Commission (ALUC) in care of the Sacramento Area County of Governments (SACOG).

G4-3 These comments reflect the areas of concern to the Department's Division of Aeronautics with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our district office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. We also request copies of the Final EIR/EIS and the Final NBHCP when available. If you have any questions, please call me at (916) 654-5314.

Sincerely,

Sandy Hesnard

SANDY HESNARD
Aviation Environmental Planner

c: State Clearinghouse
Dave Boyer-SACOG
G. Hardy Acree-Sacramento International Airport
Patrick L. Smith-USDA, Wildlife Services

10 NW

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 3 – Sacramento Area Office
Venture Oaks - MS 15
P.O. Box 942874
Sacramento, CA 94274-0001
PHONE (916) 274-0638
FAX (916) 274-0648
TTY (530) 741-4509

Flex your power!
Be energy efficient!

October 28, 2002

02SAC0113
03-SAC- 5, 99
Natomas Basin Habitat Conservation Plan
DEIR/DEIS
SCH#1997062064

Ms. Grace Hovey
City of Sacramento
Planning Division
1231 I Street, Suite 300
Sacramento, CA 95814

Dear Ms. Hovey:

Thank you for the opportunity to review and comment on the Natomas Basin Habitat Conservation Plan (HCP) proposal. Our comments are as follows:

GS-1
- We support Sutter County and the City of Sacramento's efforts to enhance the role that the natural environment will take on as area development occurs. Our comments are directed at helping to ensure successful implementation of the HCP in conjunction with the continuing operation and expansion of Interstate 5 (I-5) and State Route (SR) 99/70 adjacent to the HCP area.

GS-2
- We request that the HCP provide mechanisms to keep Caltrans informed of issues that may affect future transportation improvements including drainage, future interchange sites, and wider freeway facilities with access control. This will benefit the HCP by allowing us to provide useful information as early as possible so as to prevent any delays or increased costs to HCP implementation.

GS-3
- The Natomas Basin HCP area includes segments of I-5 and SR99. These Caltrans facility segments rely on Reclamation District 1000 and its drainage system to manage the State's stormwater. These segments are, in

general, above the grade of the surrounding fields. Lands near and abutting State facilities, thus, serve a valuable purpose regarding established drainage patterns.

The HCP should ensure that existing drainage patterns are perpetuated or improved within State right-of-way. Any increases of discharge into the State drainage system as a result of changes in impervious surfaces or other causes related to the Plan must be mitigated. Pre and post-Plan discharge information should be supplied for Caltrans review. Any change in drainage capacity needs as a result of this HCP should be identified. Any runoff that comes from the proposed HCP area must not contribute a contaminant load to storm waters handled by the State, for example oils, grease, sand, sediment, debris. All runoff that enters the State right-of-way must meet Regional Water Quality Control Board (RWQCB) standards for clean water.

The incorporation of environmental Best Management Practices (BMP), such as retention ponds, infiltration trenches, and other drainage improvements may be sufficient to mitigate adverse drainage impacts from proposed developments. G5-3

- HCP implementation must address right of way preservation for the future expansion of I-5 and SR99 and their interchanges. Plans for the SR99 freeway segments indicate a need for an "ultimate" 8 lane freeway. Plans for the I-5 freeway segments indicate a need for an "ultimate" 8 lane freeway north of the I-5/I-80 Interchange and an "ultimate" 10 lane freeway south of the I-5/I-80 Interchange. Any plans to infringe or use this needed right of way for HCP purposes should be developed in close consultation with Caltrans. G5-4

Please provide our office with any further action regarding this project. If you have any questions regarding these comments, please contact Ken Champion at (916) 274-0615.

Sincerely,

Kenneth R. Champion for

JEFFREY PULVERMAN, Chief
Office of Regional Planning

c: Katie Shulte Joung, State Clearinghouse
Paul Junker, Sutter County Planning

12/09/2002 15:40 FAX 916 920 8463 CH2M HILL 001/001

N. Campbell

Fax: CH Campbell Oct 8 02

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

RECEIVED SEP 23 2002 PLANNING DEPARTMENT

Grace Hovey SEP 13 2002
City of Sacramento
1231 I Street
Sacramento, California 95814

RECEIVED OCT 0 2002 SACRAMENTO FISH & WILDLIFE OFFICE

Dear Ms. Hovey:

Water Resources' staff has reviewed State Clearinghouse Document Number 1997062064 and provides the following comments:

G6-1

A review of Draft Natomas Basin Habitat Conservation Plan indicates portions of the proposed plan may encroach into the Sacramento River Plan of Flood Control, over which The Reclamation Board has jurisdiction. In the event that any work, including excavation and construction activities, is proposed within the jurisdiction of the Board, a permit will be required (pursuant to Section 8710 of the California Water Code). All proposed projects shall comply with standards contained in the California Code of Regulations, Title 23.

- Section 8 of the Regulations states that additional information, such as geotechnical exploration, soil testing, hydraulic or sediment transport studies, biological surveys, environmental surveys and other analyses may be required prior to Board action on the application for permit.

- Section 10 of the Regulations requires that applications for permits being submitted to the Board must include a completed environmental questionnaire that accompanies the application and a copy of any environmental documents if they are prepared for the project. For any foreseeable significant environmental impacts, mitigation for such impacts shall be proposed. Applications are reviewed for compliance with the California Environmental Quality Act.

If you have any questions, please call me at (916) 653-0402, or Samuel Brandon at (916) 653-6491.

Sincerely,

Sterling Sorenson,
Engineering Associate
Floodway Protection Section

cc: Richard Marshall, Chief
Flood Project Inspection Section
3310 El Camino Avenue
Sacramento, California 95821

PLACER COUNTY
TRANSPORTATION
PLANNING AGENCY

* MY FAX WAS NOT DELIVERED YESTERDAY (SEE TITE ENCLOSED ERROR REPORT(S))

October 28, 2002

Vicki Campbell, Chief
Conservation Planning Division
U.S. Fish and Wildlife Office, W-2605
2800 Cottage Way
Sacramento, CA 95825

RE: Draft EIS for the Natomas Basin Habitat Conservation Plan

I attended the September 25, 2002 public meeting at Whitaker Hall in Yuba City. It was very informative.

Placer Parkway

PCTPA will be conducting a Tier 1 EIS/EIR for the Placer Parkway (Parkway). A Parkway overview and copy of the Project Study Report (PSR) alignment alternatives are attached

As illustrated in the PSR map, segments of four alignments are depicted crossing the eastern portion of the HCP area. All of these would be in the proposed South Sutter Specific Plan area along SR 70/99.

G7-1

Note, the PSR identified and evaluated several concept alignments. The 'recommended' alignment is subject to change based on the subsequent detailed environmental review. The purpose of selecting a recommended alignment was to help focus the PSR and to improve cost estimates for engineering and environmental studies.

There are a number of development projects (recently approved, pending approval, and/or anticipated) for south Sutter, western Placer, and northern Sacramento Counties. As the region continues to develop, Parkway alignment options may become more limited with potentially greater environmental/economic impacts. PCTPA will be working with Sutter County to ensure viable Parkway corridor alignments are maintained for the Tier 1 process.

550 High Street • Suite 107 • Auburn, CA 95603 • (530) 823-4030 • FAX 823-4036

Environmental Review

G7-2 The Revised Natomas Basin HCP EIR/EIS references a new east-west expressway (Placer Parkway) in 4.8 Traffic (page 4-147). It is understood that the EIR/EIS would support discretionary actions such as the issuance of incidental take authorization for activities such as infrastructure and other public works projects including the future Placer Parkway.

Thank you for including PCTPA in the review process. If you have any questions, please call me at 530.823.4033.

Stan Tidman

Stan Tidman, Senior Planner

Attachments

Copy: Celia McAdam, Executive Director

Placer Parkway Overview

A Conceptual Plan (2000) and a Project Study Report (2001), for the proposed Parkway have been completed. Both were based on comprehensive public participation programs and preliminary engineering/environmental background. PCTPA and SACOG Boards adopted both documents.

The PSR envisions a transportation facility within three segments:

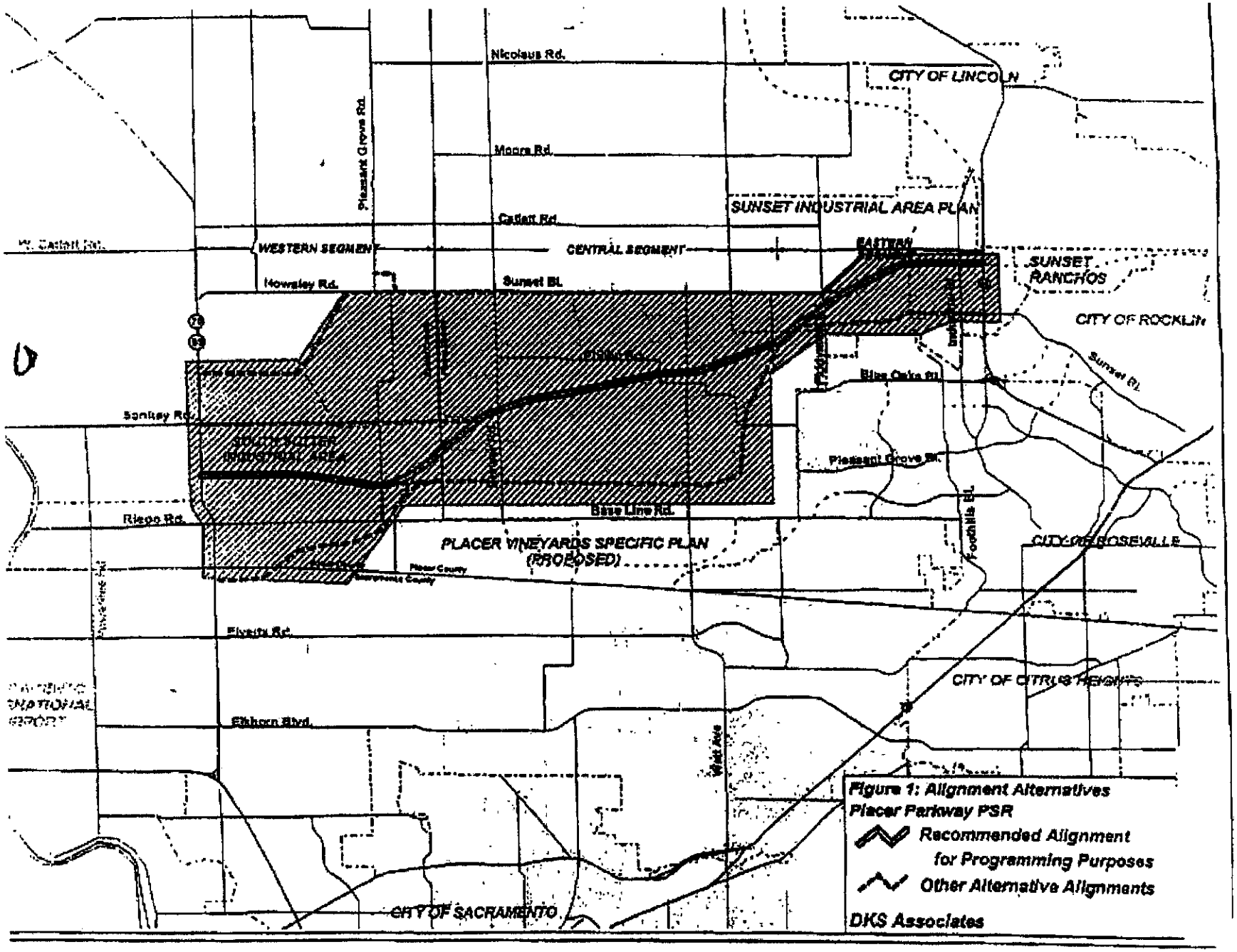
- Western – SR 70/99 to the Sutter/Placer County line -- with four alignments
- Central – Sutter/Placer County line to Fiddyment Road – with three alignments
- Eastern – Fiddyment Road to SR 65 – with two alignments

The western and eastern segments would contain interchanges at each State Route. The central segment – between Fiddyment and Pleasant Grove Roads would have no access. The PSR cited this central segment would contain an average maximum 1,000'-wide 'no-development buffer'. This corridor concept is to include and promote vicinity open space features. All of the alignment alternatives are to evaluate a 'with' and 'without' Watt Ave. extension during the project's environmental review.

Funding for the Parkway's environmental review was programmed in FY2002/03 in the 2002 RTIP. The proposed Parkway project is included in *the Placer County Regional Transportation Plan 2022* (PCTPA 2001). This document cites the project as a high regional priority. The project was also included the 2002 STIP and SACOG's recently adopted *Metropolitan Transportation Plan* (MTP) and the *Metropolitan Transportation Improvement Program* (MTIP). In July, the California Transportation Commission allocated funding. In August, Caltrans authorized PCTPA to proceed.

Earlier this year, the newly formed South Placer Regional Transportation Authority (SPRTA) adopted a $125 million Regional Transportation and Air Quality Mitigation Fee. New development in the south Placer County area will be assessed over the next 20 years to supplement federal and State funding for

regional transportation projects such as the Parkway. Approximately $50 million will be collected for the Parkway.



COUNTY OF SACRAMENTO

PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

827 SEVENTH STREET, ROOM 230
SACRAMENTO, CA 95814
Telephone: (916) 874-6141
FAX: (916) 874-6400

THOMAS W. HUTCHINGS
DIRECTOR

Robert Sherry, Principal Planner
Long Range Planning

Tricia Stevens, Principal Planner
Application Processing

Richard Maddox, Principal Officer
Code Enforcement

Ana Rhodes, ASO III
Administration

December 5, 2002

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

RE: Comments on Draft EIR/EIS, Draft Natomas Basin HCP
State Clearinghouse No. 1997062064

Dear U.S. Fish and Wildlife Service:

Thank you for the opportunity to comment on the revised Natomas Basin Habitat Conservation Plan (NBHCP) and the Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) prepared in conjunction with the draft plan. The enclosed matrix contains detailed comments on both documents, with an emphasis on technical and policy concerns and suggested areas for clarification or further analysis, particularly in the areas of land use, public safety, and water resources. The following comprises additional comments of the County of Sacramento on both documents, with a focus on general economic and policy concerns.

GS-1 The NBHCP is crafted to support the issuance of "incidental take" permits to the City of Sacramento and the County of Sutter. Such permits are authorized to allow an otherwise lawful undertaking, which could result in incidental harm to an endangered species. In this instance, the otherwise lawful activity supported by the incidental take permits to be issued is the development of property within the City of Sacramento and the County of Sutter. While such permits will protect development activities of individual landowners, the permitees will be the City and the County. Against this general background, there are a several potential shortcomings within the NBHCP and the permits that it is intended to support.

Land Uses

GS-2 The NBHCP relies upon the assumption that "...consolidated . . . large, biologically viable units with connectivity between individual reserve units..." will be acquired. Without landowners willing to sell their properties to the Natomas Basin Conservancy (NBC) at a price the NBC can afford to pay, such acquisitions will not occur. Insofar as the NBC does not possess powers of eminent domain, it is unclear from the NBHCP how such acquisition will occur. Instead, there appears to be an assumption that existing land uses, other than that acreage which the NBHCP acknowledges will develop, will continue. Yet, this assumption relates, in large measure, to property over which no permittee has current jurisdiction.

GP-3 Further, the strategy envisioned by the NBHCP relies extensively on continued rice farming within the Natomas Basin, even to acquiring conservation easements over existing rice farms. However, owners of such operations may discontinue rice farming at any time without a permit from any governmental entity, and without obtaining an incidental take permit. Water shortages or the escalating cost of this resource render rice farming infeasible. Impacts from such potential operational decisions are not discussed in the draft NBHCP or the EIR/EIS.

Financing

GP-4 In connection with an incidental take permit and the related conservation plan, the permittees, City of Sacramento and County of Sutter, must "...ensure that adequate funding for the plan will be provided." Funding for the NBHCP relies upon a system of "mitigation" fees to be imposed on developers within the County and the City. The system of "mitigation" fees to support the NBHCP does not amount to financial assurance from the City of Sacramento or the County of Sutter. Such a system is dependent upon the continuing economics of development, which may or may not occur. Absent development, there is no fee and no continuing income to the NBC, other than investment interest.

The enclosed specific comments note significant, on-going obligations of the NBC for which more than interest earnings may be required. The County of Sacramento appreciates this opportunity to comment on the proposed NBHCP and the accompanying EIR/EIS.

Sincerely,

Thomas W. Hutchings
Planning Director

AMW/GR

Enclosure

cc: Vicki Campbell, Division Planning, Conservation Planning – US FWS
Jenny Marr, Wildlife Biologist, California Department of Fish and Game
Robert Thomas, City Manager – City of Sacramento
Gary Stonehouse, Planning Director – City of Sacramento
Carol Shearly, Natomas Manager, Planning Department – City of Sacramento
Paul Junker, Pacific Municipal Consultants
Terry Schutten, County Executive
Robert Ryan, County Counsel
Hardy Acree, Director of Sacramento Airport System
Robert Leonard, Assistant Director of Airports
Dennis Yeast, Director of Environmental Review and Assessment

COMMENTS ON
DRAFT NATOMAS BASIN HABITAT CONSERVATION PLAN (NBHCP), JULY 2002
AND
DRAFT ENVIRONMENTAL IMPACT REPORT (EIR)/
ENVIRONMENTAL IMPACT STATEMENT (EIS), AUGUST 2002

SUBMITTED BY COUNTY OF SACRAMENTO
November 27, 2002

Comments on Draft Natomas Basin HCP

Note: HCP=Habitat Conservation Plan, NBHCP= Natomas Basin Habitat Conservation Plan, City = City of Sacramento; SH = Swainson's Hawk; GGS = Giant Garter Snake, Airport or SMF = Sacramento International Airport, TNBC = The Natomas Basin Conservancy. USFWS=United States Fish and Wildlife Service, Garden Highway SPA = Garden Highway Special Planning Area.

The primary issues reviewed below are:

1. Acreage development needs of the Airport as it relates to the limit of 17,500 acres development in the basin
2. Water usage, wetlands, and the attractiveness of NBHCP mitigation lands to migrating waterfowl and other bird species, and the potential increase in conflicts with aircraft
3. Land Uses

	Page(s)	Issue	Comment	Concern
G8-5	I-1, II-1	A detailed description of Natomas Basin, "defined as the area, inside the peripheral levees, and extends to the toe of the levee on the Basin side of the boundary levees", was not provided until Chapter II.	It would be helpful if a detailed description were included on the first page of Chapter I.	After reading the Introduction and looking at Figure 1, Regional Location, it appears that the Basin extends to the Sacramento River, but the definition of the area on page II-1 infers that this is not the case.
G8-6	I-1, I-2, III-2 & throughout document	On page I-1, the plan discusses "loss of habitat values incidental to take of Covered Species" caused from "urban development". During the discussion of departures from the Operating Conservation Plan in the last paragraph on page I-2, "any additional urban development" is used and then followed by "any development". On page III-1, the discussion turns to "any development in excess of that authorized by this HCP" would trigger an amendment to the NBHCP.	The plan seems to use the word "urban development", "any urban development", and "any development" interchangeably throughout the document. These can mean different things to different people. Please clarify.	Do the phrases mean the same type of development? Is the development in question changing agricultural lands to "urban" uses? Or does it literally mean any new building including agricultural barns, primary residences, farm workers dwellings, etc.? If the definition includes all building permits, then "allowed development" under existing zoning in the unincorporated area of Sacramento County may not have been taken into consideration as "development".

	Page(s)	Issue	Comment	Concern
G8-7	I-2, I-5, I-7, I-34, VII-4 – Table VII-1	"...the NBHCP's effect analysis account for a combined total of 17,500 acres of planned development occurring in the Natomas Basin (i.e., 15,517 acres within the City and Sutter County's permit areas and 1,983 acres of Metro Air Park (MAP) development in Sacramento County."	Acreage development proposed includes the entire 17,500 acres (the limit of developable acreage considered by USFWS for the livelihood of the GGS). The designation of acreage between permittees fails to account for the likelihood of expansion at Sacramento International Airport (the Airport), which lies in the Natomas Basin.	The Airport is currently conducting a Master Plan for Sacramento International Airport, which includes Terminal and Airfield development. The HCP and USFWS need to consider the intentions of the Airport before designating the entire 17,500 acres.
G8-8	I-5, I-12	Use of acronyms.	What does "MAP" mean (used in the third paragraph)? A casual reader may not know it stands for Metro Air Park.	The first time an acronym is used, the full spelling should precede it. In this instance, MAP was not defined until page I-12.
G8-9	I-6 and Attachment A, p. 4.	"For purposes of the NBHCP, although the West Lakeside Annexation is proposed by the landowners to be annexed to the City of Sacramento, this area is currently located within Sacramento County and is not included in the 8,050 acres of Authorized Development or within the City's permit area." The proposed Implementation Agreement states that annexation of West Lakeside shall trigger reevaluation of the Plan and potential amendments and/or Plan and Permit revisions.	West Lakeside is not included in the City's 8,050 acres of Authorized Development or Permit Area. This potential development would also affect the total developed acreage. If the West Lakeside project is annexed into the City of Sacramento, the effects of this developed acreage will further push the limit of 17,500 acres.	See relative to Master Plan and Airport development above.
G8-10	I-11	The "Potential Permittees" section states that the County of Sacramento could obtain coverage under the NBHCP or under a similar HCP. "If the County of Sacramento considers new projects within the unincorporated area of the Natomas Basin in Sacramento County, the County may need to address mitigation for biological impacts via amendments to this NBHCP or through..." an HCP similar to the NBHCP.	This would require an HCP amendment and issuance of separate ITPs.	More specific language is needed in this section to enable the Airport to, as an institution to potentially become involved in designating its acreage needs.
G8-11	I-30	"The NBHCP, in making its estimate of the total additional urban development which would take place in the Plan Area during the next 50 years, took into account the land disturbance that will occur within the MAP project area (1,983 acres...)"	The NBHCP, in making its estimate, did not include potential development at the Airport.	See comments relative to Master Plan and Airport development above.
G8-12	I-36	Agricultural activities are included in the section "O. Activities Not Covered by the NBHCP".	What type of agricultural activities would require participation in the NBHCP or other HCP? Does the NBHCP require on-going agricultural activities to be covered by an HCP? Are on-going agricultural activities exempt from this type of process?	Farming currently occurs in the Natomas Basin. Without describing what types of agricultural activities are allowed, it gives the impression that all agricultural activities require some sort of HCP.

	Page(s)	Issue	Comment	Concern
G8-13	II-1	The definition of the Natomas Basin area provided in the first paragraph, last sentence, is not clear.	The definition is confusing. Part of the description includes the wording "Basin side of the boundary levees". How is a layperson to understand the "Basin side" in the definition of the "Natomas Basin"?	If the waterside of the levee and the Garden Highway are not included in the Natomas Basin, it needs to be clearly stated. This area in the unincorporated portion of Sacramento County is designated Residential, Commercial/Recreation and Open Space development according to Sacramento County's Garden Highway SPA, adopted in 1978.
G8-14	I-18	There is no "Figure 305".	The Active Swainson's Hawk Nests is Figure 13, but the text states "Figure 305" in the first sentence of the first paragraph under "Numbers, Distribution and Ecology in the NBHCP area.	
G8-15	II-18	This paragraph is confusing. It begins discussing nesting in the Natomas Basin and then switches to areas outside Natomas Basin, finishing with areas inside the Basin.	Clarify where the 35 nest sites are along the Sacramento River (22 on the east side and 13 on the west side)." Are these inside the Natomas Basin or outside? Are those on the west side in Yolo County and those on the east side in Sacramento County?	The area between the Sacramento River and landside toe of the levee are not included in the Natomas Basin. The paragraph, as it is currently structured, is confusing and gives the impression that the area described above is included in the Natomas Basin.
G8-16	II-18	Swainson's Hawk Zone	Where is the "Swainson's Hawk Zone" mentioned in the fourth paragraph under "Numbers, Distribution and Ecology in the NBHCP Area"?	
G8-17	III-1	First sentence, last paragraph. "Any development in excess of that authorized by this HCP would not have take coverage under this HCP and such take coverage would require an amendment to the HCP and permits including an update assessment of impacts and mitigation measures."	Please clarify what development, and by whom, requires amendment of the NBHCP. Does additional development, not proposed by the NBHCP, require an amendment to the NBHCP or completion of a separate HCP?	Isn't creation of a separate HCP for additional development in excess of that proposed by the NBHCP an option for both existing permittees and non-participants? Some may consider any construction (i.e. agricultural barn) to constitute such development, but it may not need an incidental take permit if it isn't impacting a listed species and is in an area under jurisdiction of a non-permittee.

	Page(s)	Issue	Comment	Concern
G8-18	III-4	"The residual rice straw in the fields after harvesting is typically burned, plowed under or flooded. Flooding to dispose of rice straw is becoming more prevalent as the practice of burning rice straw is being phased out due to air quality prohibitions. In addition to rotting the rice stubble, flooded rice fields provide wetland habitat for ducks, geese, and other migratory waterfowl."	The NBHCP proposed habitat types of 25% managed marsh, 50% rice production, 25% upland (page I-17).	While rice has been produced in the valley since 1940, flooding of rice fields to eliminate stubble has only been prevalent since the early 1990's. In that period, Sacramento International Airport has sustained an increase in wildlife strikes to Aircraft of over 300%. Whereas the FAA designates an acceptable level of wildlife strikes at 1-strike/10,000 operations, the Airport had reported 1.3 strikes per 10,000 operations in 1990. Wildlife strikes increased steadily to 5.3 strikes per 10,000 operations in 1998. The NBHCP habitat types intend to "memorialize" rice production in lands around the Airport. This is a concern as it will increase the possibility of aircraft/bird conflicts and memorialize these uses as part of the plan. In addition to the threat to human lives associated with an accident resulting from a bird strike, airlines incur significant expense and lost revenue associated with aircraft downtime to repair wildlife strike damage.
G8-19	III-11	Although the permittees are not relying on Airport buffer lands as mitigation for effects with the Natomas Basin, retaining these lands in agricultural uses will contribute to the overall success of the NBHCP conservation strategies for the Covered Species.	As such, the Airport should receive some mitigation credit toward Airport development interests since retaining Airport owned land in agriculture and/or limiting its use contributes to the success of the NBHCP.	In addition to a lack of consideration of Airport development interests in the 17,500 acreage calculations, the NBHCP assumes that no development will occur on Airport buffer lands, thereby reserving development for participating jurisdictions relative to the 17,500. This precludes Airport land use decisions on Airport-owned property and precludes potential for its use as mitigation property for anticipated Airport development from the Master Plan.
G8-20	III-12, Table III-3	Notes Airport Land Plan Uses as "unspecified"	This connotes that no further development of the Airport is contemplated.	Growth of regional economy and air travel will obviously necessitate expansion.

	Page(s)	Issue	Comment	Concern
G8-21	III-13	Third sentence, first paragraph. "Sacramento County General Plan Land Use Map"	Please replace with "Sacramento County General Plan Land Use Diagram".	
G8-22	III-13	Second to last sentence, first paragraph. "All land outside of these policy areas is designated for retention as Agricultural Cropland by the Sacramento County General Plan."	This is incorrect. The majority of the land is designated as Agricultural Cropland, but there are areas near the current City of Sacramento limits in the southwest portion of the Basin designated for Agricultural-Residential uses and Commercial & Office uses.	Assumptions regarding "development" should reflect the existing land use designations. The underlying zoning of these areas allow for certain types of development that do not provide the nexus for local governments to initiate CEQA or federal review.
G8-23	IV-1	First sentence, last paragraph. "Current development approvals, City and County general plans and community plans, and other plans (including MAP) are the basis for estimating development rates anticipated in the Basin, the resulting habitat loss expected from the Covered Activities authorized by the incidental take permits, and for evaluating the corresponding environmental impacts pursuant to NEPA and CEQA."	Does the reference to the "City and County general plans and community plans" refer to only City of Sacramento and Sutter County or does it also include Sacramento County's General Plan?	If it includes Sacramento County's General Plan, the development rates and environmental impacts should be re-evaluated due to the misinterpretation of Sacramento County's General Plan Land Use Diagram. This area of Sacramento County includes Agricultural Cropland as well as Agricultural-Residential and Commercial & Offices land use designations. If it does not include the existing land uses designations (which allows some construction/development outright without environmental review for all three land use designations) as shown in the Sacramento County General Plan, how can the plan adequately address the additional environmental impacts to the Basin that the proposed covered urban development creates?
G8-24	IV-12, Figure 20	Out-of-Basin Reserves	The land area between the Sacramento River and the landside toe of the levee is out of the Natomas Basin per the definition provided on page II-1. It has not been identified as "Out-of-Basin Mitigation Area" or Area "B" on page IV-12 or on Figure 20.	According to the draft plan "up to 20% of the reserve lands may be established in 'Area B'". The land area between the Sacramento River and the landside toe of the levee is not within the definition of Area B. It should not be included in the definition of the Swainson's Hawk Zone as shown on Figure 13.

	Page(s)	Issue	Comment	Concern
G8-25	IV-17	Water Regime: "....Water will be maintained within the managed marsh during the period when rice fields dry down."	As August 1st through September 30th is traditionally a dry period in the Sacramento valley, it is unclear what "natural" conditions are being created for the focused species at that time of year.	Federal Aviation Administration (FAA) Advisory Circular *No: 150/5200-33* discusses *"Hazardous Wildlife Attractants on or Near Airports"*. This Advisory Circular (AC) provides guidance on locating certain land uses having the potential to attract hazardous wildlife to or in the vicinity (within five miles) of public-use airports. The Airport is concerned that the creation of flooded areas in late summer/early fall will be an early season attractant for migrating waterfowl. Once established as an attractive stopover and wintering habitat, SCAS is concerned that this watering practice could also increase attraction to subsequent migrating flocks. SCAS is also concerned that this watering practice could also create an incentive for migrating waterfowl to become "resident" by reducing the dry season and helping create year-round conditions that are attractive to waterfowl.
G8-26	IV-21	First sentence, last paragraph. "The NBHCP's primary strategies to mitigate impacts to the Swainson's hawk caused by Authorized Development is to avoid of (typo?) development in the Swainson's Hawk Zone..."	Neither the City of Sacramento nor Sutter County currently authorize development or have jurisdiction in the Swainson's Hawk Zone where it intersects with Sacramento County. A more accurate statement would be that the Natomas Basin Conservancy would avoid development in any lands they acquire in the Swainson's Hawk Zone or to add "avoid development in the Swainson's Hawk Zone inside Sutter County and the City of Sacramento", leaving out any reference to the unincorporated area of Sacramento County.	Sacramento County is not a participant or permittee in the NBHCP. However, Sacramento County has jurisdiction over the land inside the unincorporated area of Sacramento County adjacent to the Sacramento River. The current land use designations allow for certain types of construction to occur (i.e. primary dwellings, barns, sheds, etc.) through the local building permit process. These building permits for "allowed uses" do not provide the nexus for environmental review.
G8-27	IV-21, Figure 13	Swainson's Hawk Zone	Please provide a definition of the land area covered by the Swainson's Hawk Zone. Figure 13 does not provide a clear view of the boundaries.	

	Page(s)	Issue	Comment	Concern
G8-28	VI-40, Revision Example 13.	States: "Any other modifications to the NBHCP that are consistent with the biological the NHHCP that the USFWS..."	Words are missing. The reader is left to guess the meaning.	Without correct, accurate interpretation of this potential revision type cannot be made.
G8-29	Throughout the document	The plan does not clearly state who or what entity is responsible for updating the NBHCP if a separate HCP is completed within the Natomas Basin.		

Comments on Draft EIR/EIS for Draft Natomas Basin HCP

The primary issues reviewed below are:

1. Water supply may not be sufficient to continue sustaining rice cultivation compared to the value of the water for urban uses due to continued high growth in population, households, and jobs in the Sacramento region.
2. Swainson's Hawk Zone may preclude development within 1-mile of Sacramento River, therefore impacting SMP.
3. Impact of increase in flight operations

	Page(s)	Issue	Comment	Concern
G8-30	4-30	Change in land use acreage resulting from planned development.	Assumes that "Airport" acreage will decline by 39 acres.	It is implicitly assumed that SMF will not need additional acreage. In reality, additional acreage may be needed.
G8-31	ES-7, ES-8	Loss of Marsh Habitat, Sec. 4.4; marsh habitat will decline 8,512 acres because of authorized development.	The proposed mitigation measure: the development review process in the City and Sutter County will include a provision that projects capable of supporting jurisdictional wetlands will result in no net loss of wetlands, and will ensure that wetland functions and values will be maintained.	The proposed mitigation measure may be difficult to attain, and could preclude some projects. The only option in some cases may be to mitigate outside the Basin.
G8-32	4-32, 2-17, 4-22	Adequacy of water supply	EIR states "Reserves would be acquired with stipulation that adequate water supply is available to serve the anticipated needs (e.g. managed marsh, upland). EIR states (p. 4-22) that the "...Conservancy is not expected to experience water supply deficiencies as it purchases lands and develops habitat reserves."	It may be unrealistic to assume availability of a dependable water supply to support managed marshes and rice fields. The demand for water sparked by population growth[i] and shortages elsewhere, coupled with the worsening economics of rice farming[ii], may induce farmers and water suppliers such as Natomas Mutual to sell their water. See endnotes i and ii.
G8-33	4-33	Create high quality managed marsh in preserves in perpetuity.	Strategy to offset loss of wetland acreage by creating 2,187 acres of new marsh. Is preferable to rice fields as habitat.	There may not be sufficient water supply available because of growing urban use demands. (See "Adequacy of water supply" above.)

	Page(s)	Issue	Comment	Concern
G8-34	4-71; Fig. 2-5 (after p. 2-22).	Swainson's Hawk Zone: A corridor extending 1 mile East from Sac River levee, between the river and Natomas Cross Canal in the north and where I-80 crosses the river in the south.	Plan assumes no net loss of SH nesting habitat in the Zone. EIR states, "...no development in the Swainson's Hawk Zone would be permitted under the Proposed Action..." (p. 4-71). Also states, "The Proposed Action's primary strategy to mitigate impacts to SH is avoidance of development in the SH Zone and acquisition of upland habitat inside the SW Zone" (p. 2-21).	The zone intersects SMF to the north and south, and includes most of the SMF buffer territory. There may be future circumstances that could necessitate removing potential nesting sites in this area to maintain aircraft operating safety or to expand airport operations. Also, existing zoning in the unincorporated portion of Sacramento County between the Sacramento River and the Garden Highway (zoned the Garden Highway SPA) and the remainder of the unincorporated area inside the Swainson's Hawk Zone permits certain types of development outright as an allowed use. There is no nexus for environmental review for the allowed uses and construction may occur (i.e. primary dwellings, barns, sheds, etc.) through the local building permit process.
G8-35	ES-15	Noise	The EIR only evaluated the noise impact during construction of habitat reserves.	The potential noise impact on the development that will occur in the 17,500 acres of planned urban development from aircraft operations was not evaluated. (It may be hard to so, however, because the precise areas for development are not identified in the EIR.)
G8-36	ES-17; 4-159 – 64. See bird strike zone map, Fig. 4-2, after p. 4-160.	Public Health and Safety impact within bird-strike zones of SMF; Sec. 4.11.	(1) EIR states "less-than-significant" public health and safety impacts will result from creation of habitat reserves within bird-strike zone because of the similarity of habitat-reserve management with existing land uses, and that "...the concentration of waterfowl would not substantially change within the safety zones of SMF." (2) EIR states (p. 4.160) that "Under the Proposed Action, many existing rice fields within these zones [critical 5-, 2- and 1-mile zones of the airport] (including directly north of the airport) would be purchased for future habitat management; however land uses would not be changed." (3) EIR states that habitat reserves could be established north of SMF, and that such reserves can actually attract fewer waterfowl than rice fields. (4) EIR states that hunting programs in flocking areas of most concern to SMF could be beneficial. (5) EIR states (p. 4-164) that Proposed Action will not interfere with implementing SMF Wildlife Management Plan "...on airport property."	(1) This blanket statement may not be realistic, without including specific measures to reduce waterfowl attraction in water bodies.[11] It depends to some degree on where TNBC establishes reserves and their design. The non-significant finding seems to conflict with the statement on p. 4-160 that "The substantial acreage of rice lands north of SMF and in the general vicinity of the airport is a concern because of the heavy use of flooded rice fields by ducks and geese during the winter." It also overlooks potential increase in birdstrikes resulting from increased air traffic paralleling the region's population and economic growth. The "proposed Action" could forestall the Airport's ability to serve a growing region. ULI reports that job growth in the Sacramento region will be 29% between 2000 and 2010, exceeding both the state and national rates. (2) The EIR cannot assume that existing rice fields north of SMF, especially within 5 miles, will be purchased for future habitat management, when the County already owns all the land west of Powerline Rd and south of the Sacramento-Sutter County line (within the 2-mile bird strike zone). (3) Conversion of rice fields to habitat on County land would result in loss of agricultural lease revenue to the county. (4) Allowing gun use under aircraft approach and departure airspace may not be advisable in light of the events of 9-11-01, and may also conflict with FAA safety and security requirements issued since that date. (5) What boundaries did EIR assume for "Airport Property", just the 2,940 acres that comprises the Aircraft Operating Area, or did it also include the 2,497 acres of buffer land? (Note: SMF is comprised of 5,490 total acres.)

G8-37

Page(s)	Issue	Comment	Concern
ES-8	Loss of GGS habitat	The plan would result in a net loss of 1,950 acres of GGS habitat (8,512 – 6,562).	This could stimulate increased requirements by resource agencies in terms of other projects and activities that could affect GGS habitat.

[5] The Urban Land Institute's (ULI) 2002 publication, *Economic and Demographic Trends in California*, forecasts that California will grow between 2000 and 2010 by 6 million people and 2 million households. The 4-county Sacramento region is the fastest growing in the state. ULI's 2002 report, *Putting the Pieces Together: State Actions to Encourage Smart Growth in California*, further estimates that the state population will grow by 12 million between 2000 and 2020, and 24 million by 2040.

[6] A report published jointly by the California Air Resources Board and the CA Dept. of Food and Agriculture states that a hypothetical rice farmer using typical farming methods in 1998 would have gained a cash net profit of $274/acre, but including non-cash costs would have reduced the profit to just $98/acre. Excluding revenue of $172/acre from the Agricultural Transitional Program subsidy would have resulted in a net cash profit of just $102/acre, and a net loss if non-cash expenses are included (imputed cost of capital invested in land, equipment and farmer's own labor). These payments will cease in 2003, making rice farming an even more precarious financial endeavor, and therefore subject to fluctuations in the cost of water. The cost of rice farming has risen since the 1991 Rice Straw Burning Reduction Act, with the cost of burning averaging $2/acre compared to $36/acre for incorporating straw into soil. Source: 1999 Report to the Legislature, *Progress Report on the Phase Down of Rice Straw Burning in the Sacramento River Valley Air Basin*. California Air Resources Board and California Department of Agriculture, February 2000.

[7] FAA Advisory Circular 150/5200-33, 5/1/97, recommends the following separator criteria for sites that may attract wildlife hazardous to aircraft operations: (a) distance of 10,000 feet [almost 2 miles] from an airport's aircraft movement areas, loading ramps, or aircraft parking areas; and (b) a distance of 5 statute miles from aircraft approach or departure space. Such wildlife attractants include wetlands and wetland mitigation projects that may attract hazardous wildlife. This issue is important because aircraft collisions with wildlife annually cost the civil aviation industry $300 million, and over 500,000 hours of aircraft down time (USDA, *Wildlife Management at Airport*, 1999, p. 1). Also, in the 1960s, 4-engine aircraft comprised 75% of the U.S. fleet of passenger, but by 2008 the number of 2-engine aircraft is expected to reach 90%.

Tossell, Bob/SAC

From: Sample, Brad/SAC

Sent: April 21, 2003 7:33 AM

To: Tossell, Bob/SAC

Cc: Kroetsch, James/KWO

Subject: FW: Inco Meeting wrt Port Colborne ERA/HHRA

Bob - you available to take part in this call tomorrow? We will be needing some input from you on the text for the SOQ at a minimum. If you can sit in on the call, that would be great. I've printed off a whole stack of text from the attached web sites - if you want to look at anything, let me know. Thanks!

Brad

BTW - I do have a charge number for your efforts!

-----Original Message-----
From: Whiffin, Brian/KWO
Sent: April 21, 2003 6:55 AM
To: Sample, Brad/SAC; Kroetsch, James/KWO; Rodricks, Larry/KWO
Cc: Hansen, Kurt/KWO
Subject: RE: Inco Meeting wrt Port Colborne ERA/HHRA

Background on the Port Colborne issues are provided at the websites listed below. We don't have many specifics about the ERA in hand at this point but we do have a hard copy of the Technical Scope of Work that I will ask Jim to get to you this week as I will be away all week. Protocols have been developed for the RA but we have not been able to review these to date. I have requested further information from INCO but have not received anything to date. What we know from limited discussions with Ministry of the Environment and Inco is as follows:

There are 3 concurrent risk assessment reports being prepared to develop community specific clean-up criteria. All 3 reports will require peer review. They are not planning on a peer review of the 4th report as it will be reviewed by MOE. The reports are:

1) ERA on natural environment (excludes humans/crops)

2) ERA on crops (oats as sentinel species)

3) HHRA (including baseline risks from supermarket produce, in vitrio and in vivo measurements on Port Colborne soils)

4) Integration Report of the above including Remediation Options Analysis and recommended remediation option by lands use

Report 1) is the first one completed in draft and it is the focus of our meeting. However, we also want to showcase capabilities for the remaining 2 risk assessment reports as well as how we could input to 4) if the opportunity arises.

There will be a 6 week review period for each report.

Different firms may be selected for each review.

There are 4 COCs - nickel, copper, cobalt, arsenic

(21)

Environmental Council of Sacramento
Friends of the Swainson's Hawk
National Wildlife Federation
Planning and Conservation League
Sierra Club

December 5, 2002

Field Supervisor
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

RE: **Comments on Draft Natomas Basin Habitat Conservation Plan, dated July 25, 2002 and Associated Draft Environmental Impact Statement/Environmental Impact Report**

Dear Sir or Madam:

O1-1 We are writing on behalf of five conservation groups – Environmental Council of Sacramento, Friends of the Swainson's Hawk, National Wildlife Federation, Planning and Conservation League, and the Sierra Club – to comment on the Draft Natomas Basin Habitat Conservation Plan (NBHCP), dated July 25, 2002, and associated documents released for public review, including the Draft Environmental Impact Report and Environmental Impact Statement (EIR/EIS). We are also appending to this letter two consultants' reports (Hausrath Economics Group and Center for Natural Lands Management) that specifically address economic issues, and form an integral part of our comments.

As discussed below, the five conservation groups we represent were plaintiffs in *National Wildlife Federation v. Babbitt*, the litigation challenging the 1997 version of the NBHCP. The August 15, 2000, ruling in that case sets forth important ground rules for future HCPs in the Natomas Basin. We are deeply concerned about the failure of the City of Sacramento and Sutter County, the two proponents of the 2002 draft, to adhere to the directives in this ruling.

Environmental groups have participated in the public review process for the Natomas Basin Habitat Conservation Plan, as well as related local land use processes, since 1995. Our groups were parties to the May 15, 2001, settlement allowing certain land use activities in the Natomas Basin to go forward during the preparation of the current draft HCP, and we have followed closely the implementation of that settlement. We have retained economic consultants to advise us on agricultural and real estate development economics in the Natomas Basin and we have consulted extensively with the leading biologists on Basin species. As a result, we are highly cognizant of the biological and economic realities of the Basin. We are extremely concerned about the failure of the current draft to address some of these realities. If these failures are not corrected, the imperiled species of the Basin will be left without the legal protections they need to survive, and various agencies, local governments, developers, and conservation groups will likely become, once again, mired in litigation.

It is our sincere hope and desire that legally-required protections will be provided for the imperiled species of the Natomas Basin in the final draft of the NBHCP and that additional litigation will not be necessary. For this reason, we provide in first main section of our comments a "road map" for HCP revisions that we believe, if implemented, would satisfy the requirements of federal and state law and avert litigation. The second main section of our comments provides detailed explanations as to why the current draft NBHCP fail to satisfy the
O1-1 requirements of the federal and state Endangered Species Acts, National Environmental Policy Act, California Environmental Quality Act, and California Fully Protected Species Act.

O1-2 Note that although the draft NBHCP proposes to cover 17,500 acres of new development and to mitigate for that amount, some 4,413 acres of this amount has already been developed by the City of Sacramento during the 1997-2002 period under the 1997 NBHCP and under the Settlement Agreement, and mitigated under conditions of those agreements.

I. SUMMARY OF CONCERNS

Although the draft HCP makes some important improvements over the 1997 HCP that was struck down by the U.S. District Court, it also repeats some of the 1997 HCP's most serious
O1-3 mistakes. The 1997 HCP set a .5 to 1 mitigation ratio based on the flawed premise that the lands to be acquired would have at least three times the habitat value of the lands to be converted to urbanization. As discussed below, undisputed scientific data proves this premise — repeated again in the draft HCP — to be inaccurate. Similarly, 1997 HCP makes an unfounded assumption that landowners across large swaths of land in the Natomas Basin will voluntarily (and without compensation) keep their land in agriculture and provide habitat benefits. The draft
O1-4 HCP does not make this explicit statement; instead it simply ignores the substantial amount of land in the Basin, above and beyond which would receive take permits, that is under intense development pressure. Many of these lands must be protected in some fashion to achieve the habitat connectivity and other goals of the NBHCP.

O1-5 These comments explain how the HCP must be revised to provide for the long-term viability of Natomas Basin wildlife while addressing the political and economic constraints of Natomas Basin jurisdictions and developers. Relying on comments submitted separately by independent scientists, we demonstrate the need for, and the practicability of, a mitigation ratio of 1.17 acres of Natomas habitat preserved for each acre of development, rather than the proposed .5-1 ratio. We also explain why the ultimate habitat and agriculture area in the Basin must comprise at least 28,500 acres. Included would be 17,500 acres of habitat acquired as mitigation, maintenance of the existing 4,000 acres of airport buffer lands, and an additional 7,000 acres of open space uses, focused on agriculture. This might include additional canals, ponds, restored marsh areas, and additional airport buffer lands. It could also include limited park lands and trails for public use, associated interpretive centers, restroom and parking areas, native plant and tree nurseries, community gardens, wildlife viewing areas, fishing and boating access, boardwalks and forested areas.

O1-5 Put simply, these comments set forth a vision for the Natomas Basin that should be attractive to all stakeholders in the debate. We look forward to engaging in a detailed discussion of each of the elements of our proposed revisions.

II. HCP REVISIONS NEEDED TO SATIFY REQUIREMENTS OF ESA

O1-6 To satisfy the ESA, an applicant for an incidental take permit must satisfy three basic requirements. It must submit an HCP that will not "appreciably reduce the likelihood of survival and recovery" of imperiled species substantially worsen the covered species' prospects for survival and recovery (*see* ESA 10(a)(2)(b)(iv)). It must provide additional biological protections in the HCP where feasible (*see* ESA 10(a)(2)(b)(ii): applicant must minimize and mitigate the impact of takings "to the maximum extent practicable"). And it must ensure adequate funding to carry out the HCP (*see* ESA 10(a)(2)(b)(iii). In *NWF v. Babbitt*, the court held that the U.S. Fish and Wildlife Service (FWS) arbitrarily found that the City of Sacramento had satisfied these three requirements with respect to the 1997 NBHCP. To comply with these requirements, and the elaboration on these requirements set forth in *NWF v. Babbitt*, the City of Sacramento and Sutter County must revise their HCP to include the following features.

A. Key Features of an Acceptable HCP

1. Mitigation Ratio

O1-7 The draft NBHCP requires only 1/2 acre of mitigation land to be acquired for each 1 acre of development. As explained in greater detail below, this mitigation ratio is inadequate to provide protection for the covered species and creates considerable economic and biological uncertainty for the Basin as urban development occurs.

O1-7(B) An acceptable HCP would require a 1.17 to one mitigation ratio on the remaining lands to be permitted and have as one of its objectives the creation of a habitat and agriculture area in the Basin comprising 28,537 acres. The ratio is derived from a one to one mitigation ratio that is adjusted for the 13,087 acres of land remaining to be permitted to 1.17 acres of mitigation land for each acre developed. Since 4,413 acres have already been permitted at a lower ratio, and 2,200 acres of mitigation land acquired, the higher ratio is necessary on the remainder to achieve the desired outcome.

O1-7(C) Included would be 17,500 acres of habitat acquired as mitigation, including minimum 200 foot easements on each side for canals passing through urbanized areas, maintenance of the existing 4,000 acres of airport buffer lands, and an additional 7,000 acres of open space uses, focused on agriculture. This might include additional canals, ponds, restored marsh areas, and additional airport buffer lands. It could also include limited park lands and trails for public use, associated interpretive centers, restroom and parking areas, native plant and tree nurseries, community gardens, wildlife viewing areas, fishing and boating access, boardwalks and forested areas.

O1-7(D) The Land Use Table below compares the 1997 HCP's targeted land use, the current draft HCP's targeted land use and an acceptable HCP's targeted land use. The acceptable HCP would

not exceed 25,000 acres in urban use. It would allow 17,500 acres of new development after 1997, with the remainder of the 25,000 acres derived from urban uses existing prior to 1997. Habitat acquired through the one-to-one mitigation ratio would yield habitat preserves of 17,500 acres. Airport owned buffer lands maintained in agriculture are about 4,000 acres. The remaining 7,000 acres would be acquired using grants and other means, including profits from agricultural operations. Management costs would be paid from agricultural revenues. The lands would be managed to preserve agriculture in the Basin to support habitat protection as well as the health of the agriculture industry. Public trails could also be included. All lands not in urban development would thereby be under one management, the Natomas Basin Conservancy, and coordinated by that Conservancy to maximize collaboration between agriculture, habitat preserves, water, flood and drainage agencies, and the airport. Landowners who want to farm would thereby be assured that agriculture will remain viable in the Basin.

Land Use Table*

	1997 Use	Draft HCP	Acceptable HCP
Existing Urban/Rural Res	4,231	4,231	4,231
Airport	1,551	1,551	1,551
Highways	1,435	1,435	1,435
Proposed development		17,500	17,500
Total Urban	7,217	Unknown	24,717
Land for future development	remainder	Remainder	None
Existing Airport Buffer in Ag	4,000	4,000	4,000
Proposed Preserve	-	8,750	17,500
Canals, ponds, groves	924	Decrease	924
Agriculture, include. pasture	36,606	Remainder	6,396
Idle, Ruderal, Grassland, Other	4,790	Remainder	0
Total	53,537	53,537	53,537

* Derived from NBHCP III-7, Table III-4

By sustaining farming, the proposed revision to the HCP would provide significant economic stability and diversity to the Basin, while preventing jeopardy to listed species. All the agricultural lands would be under the control of the habitat manager in order to avoid conflicts between agriculture and habitat needs and to reduce overall uncertainty. However, ultimately the agricultural community would be a full participant in the operation of the Conservancy. Centralized management of non-urbanized lands would provide major benefits to all parties and substantially reduce risks and losses from factors beyond the control of the HCP or private parties (disease, contamination, sabotage, catastrophic flood or drought).

O1-7(D)

2. Cap on amount of land to be developed.

O1-8

The 1997 HCP assumed only 17,500 acres of land would be developed in the Natomas Basin in the next 50 years, that 8,750 acres would be preserved and managed as habitat and that other lands would continue to be used by private landowners for agriculture. The present HCP

covers 17,500 acres of land to be developed, and states that other lands are likely to be developed in the future. By so stating, the City of Sacramento and Sutter County are telling developers and landowners that these agencies may permit future development of lands zoned agricultural and outside of the 17,500 acres. This approach will frustrate the ability of the Natomas Basin Conservancy (NBC) to acquire lands needed to carry out the NBHCP's conservation program, because landowners who have been led to expect urban development entitlements will not sell to the Natomas Basin Conservancy for reasonable prices, or at all.

O1-8

An acceptable HCP would state as its objective that only 17,500 acres of land in Natomas can be developed (starting 12/31/97, the effective date of the former NBHCP) and that all other remaining lands in the Basin will be acquired or managed for habitat and habitat-friendly agriculture, with public trails, interpretative centers and parking areas. The 1997 USFWS Biological Opinion, plus recent data in the EIS/EIR showing the importance of virtually the entire basin to covered species, provides the basis for setting the maximum amount of development for the basin at 17,500. The 17,500 acre cap includes all infrastructure necessary to serve urban development, including any detention basins or wastewater treatment facilities.

O1-8(B)

An acceptable HCP would ensure that a minimum of 10,500 acres is managed for Swainson's Hawk and other upland species west of Highway 99/ El Centro Road, and alongside the south of the Natomas Cross Canal. It would ensure that a minimum of 14,000 acres of land and associated canals, ditches and drains throughout the habitat areas are managed for Giant Garter Snake and other wetland species.

3. Habitat Zones/ Location of Mitigation Land

The draft NBHCP requires minimum sized preserves and connectivity between preserves, but it does not designate areas to be targeted for acquisitions. This approach has already produced harmful results under the 1997 HCP scattered land acquisitions, with large "edge effects" between urban and habitat land uses and added habitat management costs; and speculation in land prices. The HCP must be revised so that the plan's objectives of habitat contiguity and affordability can be achieved.

O1-9

An acceptable HCP would designate habitat areas in the Basin to be permanently preserved, designate areas to be developed, and would hold in reserve other areas where future development or habitat could be located. (See Map A) In general, habitat would be designated for remaining agricultural zoned lands west of Highway 99, within one mile south of the Cross Canal, at least one mile wide adjacent to the boundary of Sutter and Sacramento Counties, and include all existing NBC preserve lands. An exception would be made for the Brennan parcel, which is an isolated parcel in an area designated by Sutter County for development, and therefore would not be retained as preserve land.

O1-9(B)

The ultimate NBC preserve in the Northeast corner of Sacramento County would include at least 1,600 acres of contiguous habitat. No take permit would be issued that could preclude such a preserve. No take permit would be issued to the Sutter industrial development west of Pacific Avenue except for a 50 acre section on the east side Highway 99, to be located at least one-half mile north of the County boundary.

O1-9(C) Based on the performance of the 1997 NBHCP, we know that without new safeguards high quality habitats within the southern Basin will be destroyed and only partly mitigated with lower quality habitat in the northern Basin. Substantial harm could result if of acquisitions are not located and staged to protect threatened populations most affected by the City of Sacramento's past development and the likely rapid development of the rest of the City's permit area in the near future. Therefore, an acceptable HCP would require the remainder of the City of Sacramento's permitted development to be mitigated within the County of Sacramento.

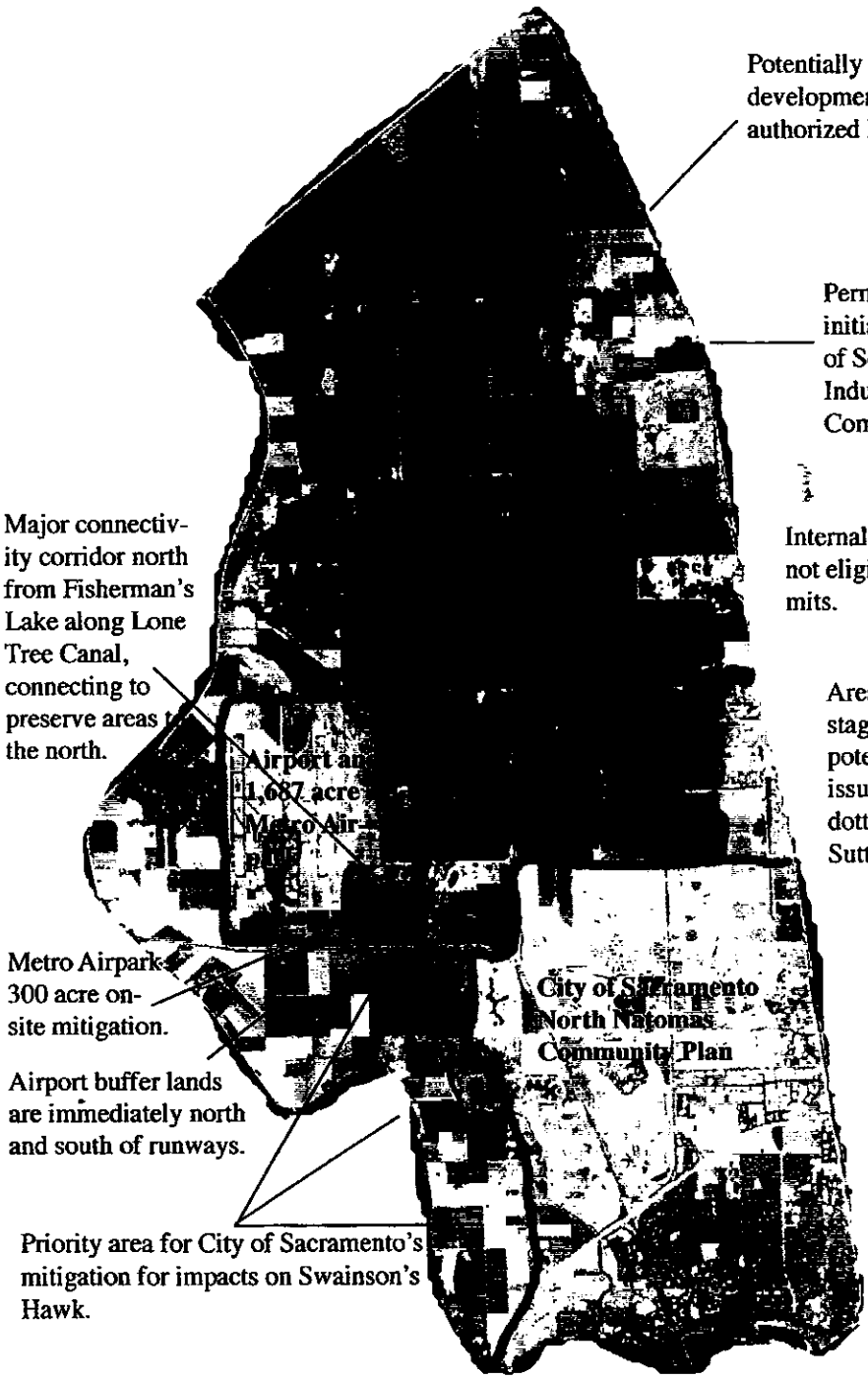
4. Conservation Strategies for Uplands and Wetlands

O1-10 The 1997 HCP was vague about the overall allocation of habitats among the 8,750 acres preserved, although the fee estimation procedure assumed all lands acquired would be rice lands north of Elverta Road. The draft successor HCP adds specificity. Three quarters of the lands acquired are to be managed for wetland species (6,562 acres), with one-quarter to be managed for upland species (2,188). As our comments elsewhere demonstrate, the conservation strategy, upland, marsh and rice land proportions, land management regimes and connectivity implementation, and guarantees of water supply and water quality for wildlife are inadequate for mitigating the 17,500 acres of habitat displaced by urban uses, and the effects of urbanization on preserve areas.

O1-10(B) An acceptable HCP would set forth detailed management prescriptions for 28,000 acres of non-urban land in the Natomas Basin. At minimum, 10,500 acres of acquired preserve lands west of the I-5/Highway 99 corridor and potentially along the Cross Canal, would be managed for Swainson's Hawk, with at least half that acreage in alfalfa or other suitable crop. Initially upland preserve areas would be managed entirely for maximum forage (alfalfa, if feasible, or other suitable crops) and subsequent changes in management practice as the preserve matures should depend upon positive biological findings, or new evidence on forage values. Preserve areas would be at minimum 1,000 acres in size. Priority acquisitions would add to existing preserve areas until 1,000 acres are acquired. Fallowed lands (including rice lands) would be planted in cover crops to increase forage values for all raptors. Connectivity between preserve areas will be guaranteed and enhanced through habitat management of interconnecting canals with 200 feet of conservation easement on each side where needed to buffer from urban encroachment. Fisherman's Lake would be protected on the east by at least an 800 foot habitat area. The City would not receive a take permit for the 180 acres in the "Swainson's Hawk Zone" that have been included in the North Natomas Community Plan. An acceptable HCP would condition issuance of an ITP to Sutter County upon Sutter's prior completion of public wastewater collection and treatment facilities which do not discharge into Natomas Basin, and a public stormwater drainage
system meeting water quality requirements.

O1-10(C) An acceptable HCP also would include at least 14,000 acres in rice production, marsh and canals managed for giant garter snake and wetland species. Preserve areas would be at minimum 1,000 acres in size. Priority acquisitions would add to existing preserve areas until 1,000 acres are acquired. Marsh habitat would be encouraged through low cost methods where natural conditions favor marsh, and managed to be compatible with airport needs. Conversion of

Map A: Environmental Organizations "Acceptable HCP" Discussion Map of Natomas Basin



rice land to marsh land would be limited to unproductive edges and require an NBC technical and board finding that such conversion is necessary to achieve adequate protection for the Giant Garter Snake.

O1-10(C)

5. Authorized Development: Staging of Take Permits

The 1997 HCP and the present draft provide one permit to each land use jurisdiction to cover thousands of acres of development. While adaptive management techniques exist to fine tune mitigation effectiveness over time, and a 9000 acre review point allows for evaluation of the plan, the proposed allocation of take authority is simply arbitrary and based solely on today's land use expectations in a dynamic market in which these could change dramatically. The "one permit covers all" approach is simply not responsive to the biology or the economics of land development in territories occupied by endangered species. Also, the 17,500 acres of authorized development does not include the numerous projects by public agencies including SAFCA, Sacramento International Airport, Natomas Mutual Water Agency, Caltrans and Sacramento County Public Works that will be built outside the Draft NBHCP permit areas, and in excess of the 17,500 acres permitted by the NBHCP, to accommodate urban development and on-going responsibilities of these agencies.

O1-11

An acceptable HCP would provide a take permit to the City of Sacramento for its 8,050 acre North Natomas Community Plan area, which is already partly built out, and would reserve 3,000 acres of take for Sutter County for legally authorized development in the Basin. It would assume 1,683 acres (instead of 1,983) at Metro AirPark. These totals would include all development and related infrastructure, including detention ponds. We see a potential of 4,757 acres that could shift among agencies and jurisdictions, within designated areas previously established by an Acceptable HCP. We would support a fast-track ITP amendment process to allocate these acres in the future (not exceeding the 17,500 acre cap) if jurisdictions would be required to first utilize existing take authorization before new lands would be permitted to receive take authorization. We would also like to see projects requiring a separate Section 7 analysis by USFWS conform to the HCP with mitigation requirements to be reviewed and approved by the Natomas Basin Conservancy and integrated with the Conservancy's program, and be included in the 17,500 acre cap.

O1-11(B)

6. Water Agencies and SAFCA as Partners and Participants.

The draft NBHCP acknowledges the key role that two water agencies — Natomas Mutual Water Company (NMWC) and Reclamation District 1000 — play now and in the future for habitat for the Basin. The projects of the Sacramento Area Flood Control Agency (SAFCA) will likewise have major habitat impacts. However, the Plan fails to involve SAFCA, and the two water agencies withdrew from Plan participation in February, 2002.

O1-12

An acceptable HCP would require active participation by the two water agencies and SAFCA in order to ensure the continued viability of agriculture and habitat in the Basin in perpetuity. In order to involve these agencies fully, there must be incentives for them to participate. The HCP mitigation ratio described above would provides such incentives. By permanently limiting urban development to 25,000 acres, the HCP would provide SAFCA with

O1-12(B)

greater certainty about the flood protection needs it must plan for. With 28,000 acres of land guaranteed to be in agriculture and habitat, the water agencies would be assured continued operations in perpetuity. Over time, their constituency and client base would shrink to one party, the Natomas Basin Conservancy. These agencies therefore would have a big incentive to be engaged in the habitat plan and to be parties in the governance of the Conservancy.

O1-12(B)

During the early years, before land ownership shifts to NBC, these agencies rightfully should be compensated by NBC for their contribution to habitat protection on canals, ditches and drains not under NBC ownership. Therefore, mitigation fees should include costs of working with water agencies on canal management and acquisition of canals that may be abandoned as well as conservation easements along these canals.

O1-12(C)

Of grave concern is any potential water transfer out of the Basin. Any water transfer agreements between NMWC and other parties should be subject to review and approval of the NBC TAC and be compatible with the NBHCP. Likewise, flood control projects undertaken by SAFCA should be compatible with the NBHCP.

O1-12(D)

A Memorandum of Understanding that acknowledges the evolving partnership and includes a canal maintenance plan, management practices and annual fees is an essential component of an acceptable HCP. Without formal agreements with NMWC, RD 1000 and SAFCA and compliance by these agencies with take permits, any Natomas Basin HCP fails the basic test. US Fish and Wildlife Service can further assure this cooperation by making Section 7 no jeopardy findings for water and flood agency projects contingent on such an agreement.

O1-12(E)

7. County of Sacramento As Partner and Participant

The draft NBHCP does not include the County of Sacramento as a party. Both the County in its land use authority and the County's Department of Airports have done significant damage to habitat and species without applying for take permits or mitigating for impacts on species.. In addition, the ability of the County to allow much more intensive residential and commercial use of lands under its jurisdiction remains a major threat. Attached as EXHIBITS 1 and 2 are documents listing recent County permits for small-scale urban development in Natomas without ITP's or mitigation for species impacts, and documents concerning County Airport's destruction of SWH nest trees, along with nearly 100 other trees, and illegal filling of wetlands.

O1-13

An acceptable HCP must have the County of Sacramento as a party and participant. It would also prohibit the County of Sacramento from permitting any further development and re-zoning to ag-residential use in the Swainson's Hawk zone, west of El Centro Rd, south of I-5, and west of the Airport, and it would require the County to require habitat mitigation fees for all construction in accordance with existing zoning on parcels of less than 40 acres. US Fish and Wildlife Service is in a position to require the County to participate in the NBHCP because the Metro AirPark development in Sacramento County is under legal challenge for an Endangered Species violation, the US FWS could require the County to become a party as part of the resolution of those issues.

8. Governance

The draft HCP calls for much of its implementation to be carried out by a non-profit association, the Natomas Basin Conservancy. The Conservancy Board members are appointed by the land use jurisdictions. Up to the present, the NBC Board has been appointed by the Mayor of the City of Sacramento and confirmed by the City Council. Looking ahead, there is potential for a Board that is split between two jurisdictions with significantly different interests, and mired down in territorial and policy disputes between those jurisdictions.

O1-14 An acceptable HCP would include a new governance structure that allows Board participation by a variety of parties. It would include an appointment committee to make appointments to the NBC Board (and a change in NBC bylaws for that purpose). The number of Board members would be fixed at 7. The appointment committee would be comprised of the regional directors of USFWS, CDFG, the Mayor of Sacramento, the Chair of the Boards for Sutter County, Sacramento County, SAFCA, RD 1000 and Natomas Mutual Water Company. Employees or current board members of any of the appointing agencies would not be eligible for Board appointment.

9. Funding Guaranteed by the Applicant.

An acceptable HCP would require land that adequate and appropriate mitigation lands, approved by the NBC, USFWS, and CDFG, are acquired before grading begins. To guarantee that adequate operations and management funds are available during the lifetime of the plan, our
O1-15 proposed revised HCP would have a back-up funding mechanism to be triggered by the land use agencies on request by either of the regulatory agencies. The back-up mechanism could be a bond or an assessment district (provided that levy of special taxes do not require landowner approval after development has occurred).

B. The Revised HCP as Proposed Is Feasible

The above outline of an acceptable HCP includes elements from environmentally superior alternatives analyzed in the EIR/EIS. The NBHCP at VII-65-69 outlines reasons why applicants believe that the proposed plan meets statutory requirements and why a higher mitigation ratio is not feasible. Our comments below explain why we disagree. Specifically, the
O1-16 NBHCP at VII-69 states that "a mitigation ratio above .5 to 1 would require the purchase of more reserve lands as mitigation. This would result in a higher price per acre for land, forcing the mitigation fee above the acceptable margin, and making the development infeasible." It also says: "approving too high of a mitigation fee could make development infeasible, making it impossible to achieve the goals and objectives of the Land Use Permittees." One flaw in this analysis is that it doesn't address the net effects on fees of the larger mitigation ratio. (*See* comments by Hausrath Economics Group, and Center for Natural Lands Management, attached.)

O1-17 The economic advantages of the proposed revised HCP include:

* there is ample land available for purchase for mitigation land since 28,000 acres of the Basin will not be eligible for a take permit for urbanization and will be planned to be preserve land;

• the additional land available for species protection in the proposed revised HCP means that the land does not have to be as intensively managed as in the Proposed Plan, so restoration and enhancement portions of the fee would be far less. Under present base case conditions, GGS habitat exceeds 24,000 acres and SWH habitat exceeds 22,000 acres. Our proposed HCP retains permanently in one large preserve, 28,000 acres to be managed for these species, and protects the most sensitive areas that have been historically used by these threatened species. Thus the habitat lands need only be improved by 60 percent over all to achieve full mitigation of impacts, rather than the 300 to 500 percent improvement in habitat value contemplated under the draft HCP.
• since mitigation land will be acquired before grading, there will be no need for a supplementary endowment to guarantee that all lands required for mitigation are purchased (per acre fees will be lower);
• speculation in land prices for development will be sharply curtailed in the basin, thus reducing the cost of acquiring habitat lands, and making it possible to use grants to acquire land at a fair habitat land value.
• the productivity of agricultural lands under management of the Conservancy provides greater income to the Conservancy for management and administrative costs, and for acquisition of additional agricultural land;
• there is assurance of a permanent water supply at a scale that makes water affordable for agricultural and habitat purposes;
• the option of using conservation easements is much more attractive under the Acceptable HCP scenario than the Draft HCP for both farmer-landowners and for the regulatory agencies and Conservancy, thus reducing the cost of land;
• local government will receive higher revenues from preserves maintained in agricultural uses than from intensively managed preserve uses, and also have less costs and conflicts between uses than were development permitted throughout the basin, interspersed with intensively managed preserve areas;
• the net costs to local governments of lands in open space would likely be lower than would be incurred if the same lands were developed;
• developers will likely directly pay for much of the administrative cost of acquisition since grading will depend on habitat land being acquired first, thus reducing fees per acre;
• the cost of managing and monitoring preserves will be lower per acre and large preserves will require much less fencing and clean-up from public intrusion;
• the scale of agricultural operations will ensure that economies of scale are achieved in production, thereby enhancing farming income;
• the plan allows for additional, future, undefined development totaling over 6,000 acres in the Basin, and ensures that only the highest and best uses of the developable land are attracted to the Basin. Land to be developed is confined to specific areas where urban infrastructure can be cost-effective and conflicts with habitat and agricultural uses are minimized.

Environmental advantages include:

• the water and reclamation districts are engaged as full economic partners in the maintenance of the preserve, thus reducing uncertainty about water supply, quality, and canal management regimes.
• "edge effects" and conflicts with urban uses are greatly reduced;

- connectivity between preserve areas is assured;
- fragmentation of regulatory effort is minimized with one plan for the Basin to which all parties in the Basin must comply;
- the risks of mitigation failures are minimized by the scale of habitat and agricultural lands permanently preserved.

O1-17

III. THE CONSERVATION PROGRAM FAILS TO ENSURE THE CONTINUED VIABILITY OF THE COVERED SPECIES IN THE NATOMAS BASIN AND OTHERWISE FAILS TO SATISFY THE REQUIREMENTS OF FEDERAL AND STATE LAW

A. There is No Basis for the Assertion that the Draft NBHCP Will Not Appreciably Reduce the Likelihood of Survival and Recovery of Covered Species

1. Protection of the existing population of Giant Garter Snake ("GGS") in the Natomas Basin is essential to survival and recovery of the species.

O1-18

In its Biological Opinion #PN 199200719, March 11, 1994, "Endangered Species Act Consultation On the Revised Natomas Flood Control Improvement Project," found that the American Basin, consisting largely of the Natomas Basin, had the largest remaining extant population of GGS in existence. "Absent measures to address the prospect of future basin-wide losses of existing giant garter snake habitat," urban development resulting from flood protection "could extirpate the giant garter snake population from the American Basin." *Id.* pg. 4. The Service found that ***"maintenance of a viable population of Giant Garter Snake in the American Basin*** (Natomas) ***is vital to the survival of the species.***" *Id.* pg. 5. (EXHIBIT 3).

The USFWS Draft Recovery Plan for the Giant Garter Snake, July 1999, found that protection of the Giant Garter Snake in Natomas Basin is a "Priority 1" recovery task, *Id.* pg. 51, which the Draft Recovery Plan defines as "*an action which must be taken to prevent extinction or to prevent a species from declining irreversibly*". *Id.* pg. 48.

The Draft NBHCP acknowledges that, without measures to avoid, minimize, and mitigate impacts of development, the City's and Sutter County's development would adversely affect the continued existence of GGS in the American Basin. *Id.*, pp. VII-7-8, VII-9.

O1-19

2. Protection of the existing populations of Swainson's Hawk ("SWH") in Natomas Basin is essential to survival and recovery of the species in California.

CDFG's California Endangered Species Act Consultation for the American River Watershed Investigation (1990) found that "*The Natomas area reach of the Sacramento River provides one of the highest concentrations of Swainson's Hawk nesting territories in California.*" *Id.* pg. 4. "The Department believes that the Natomas area is an *essential habitat for the remaining Swainson's Hawks in the Central Valley.* This species cannot sustain significant losses of nesting and /or foraging habitat as a result of development activity in the region." *Id.* p. 7.

FWS's December 17, 1997 Biological Consultation of the former NBHCP found that "The nesting population (of Swainson's Hawks" along the Sacramento River levee adjacent to the Natomas Basin "is considered so significant by CDFG that its loss or reduction could cause them (CDFG) to seriously evaluate a change in the status of the Swainson's Hawk from threatened to endangered." *id.* pg. 5.

The Draft NBHCP itself, p. VII-11, says that "The Natomas Basin provides foraging and nesting habitat for the Swainson's Hawk and is important to the continued viability of the Swainson's Hawk."; and acknowledges that without measures to avoid, minimize, and mitigate
O1-19 impacts of development, the City's development "might adversely affect the continued existence of SWH in the Basin." *Id.*, pp. VII-14.

3. There Is No Basis for the Draft NBHCP's Assertion that the .5 to 1 Mitigation Ratio Will Fully Mitigate for Impacts on Species and Not Appreciably Reduce the Likelihood of Survival and Recovery of the Giant Garter Snake and the Central Valley Population of Swainson's Hawk.

In light of the critical importance of Natomas Basin to the survival and recovery of two imperiled species, it is imperative that the NBHCP use great caution to prevent irreversible species decline. The imperative for caution is especially obvious where the mitigation for impacts of take are not implemented until after habitat destruction, and the efficacy or failure of
O1-20 the mitigation program will not be known for many years, when it is it is too late to undo mistakes. *See* FWS Section 7 Consultation Handbook (calling for FWS to err on the side of imperiled species in the face of incomplete information).

Yet the Draft NBHCP does the opposite: only 1/2 acre is protected to "mitigate" for destruction of each acre of habitat of imperiled species. There is no basis to believe that the .5 to 1 "mitigation ratio" will fully mitigate for impacts or avoid reducing the survival and recovery prospects of the imperiled species. The Draft NBHCP's assumptions about the quality of habitat lost in comparison to quality of habitat conserved are not substantiated by the EIR/EIS or by independent biological opinion. For more detail on this issue, please review separate letters from the Swainson's Hawk Technical Advisory Committee and from Friends of the Swainson's Hawk.

a. Habitat Conservation Plans Usually Provide A Mitigation Ratio Of One Or More Acres Preserved For Each Acre Developed.

O1-21 The U.S. Environmental Agency, in its comment letter dated September 30, 2002, "Detailed Comments" attachment, pointed out that "habitat conservation plans usually provide for a mitigation ratio of one acre of mitigation land for every acre lost".

O1-21(B) Other HCP's in the Central Valley typically require a 1 to 1, 2 to 1, or even 3 to 1 mitigation ratios. The San Joaquin County HCP (adopted 2001) requires a 1 to 1 mitigation ratio for lands converted from agricultural use, including fallow land, (except vineyards and orchards).

San Joaquin's farmlands are foraging habitat for the Swainson's Hawks, (the major species covered by the San Joaquin HCP). The San Joaquin HCP also requires 3 acres of compensation for every acre converted from "natural" land, including aquatic habitat AND man-made canals and drainage ditches (unless lined with concrete), a striking contrast to the .5 to 1 of the NBHCP. The San Joaquin HCP permits a .5 to 1 mitigation ratio only for "multi-use open space lands" consisting of vineyards, cultivated parks, orchards, and similar uses which are clearly little nor no habitat value. Conversion of occupied GGS habitat, identified in the San Joaquin Plan, is forbidden.

The Draft Yolo County HCP, and the Preliminary Conservation Strategy of the Draft South Sacramento County HCP require a 1 to 1 mitigation ratio for conversion of farmland similar to Natomas non-rice farming. These areas are also foraging habitat for Swainson's Hawks. The Metropolitan Bakersfield HCP (1994) requires a 1 to 1 mitigation ratio for conversion of agricultural and "open land", and 3 to 1 ratio for conversion of "natural land".

O1-21(B)

Brookfield Homes/NTI has offered a 1 to 1 mitigation ratio for its proposed development north of the City. (EXHIBIT 4, p.2) The City of Sacramento's proposed "Joint Vision" for Natomas proposes a ratio of one acre of open space, including species habitat, for every acre developed. (EXHIBIT 5, p. 14)

O1-21(C)

b. The Wildlife Agencies' Previous Agreement To A .5 To 1 Mitigation Ratio In The Early Negotiations Of The NBHCP Was Conditioned Upon Implementation Of Other Species Protections Measures Which Are Absent In The Present Draft NBHCP

The .5 to 1 mitigation ratio in the current draft NBHCP was carried over from the 1997 HCP without any new analysis. The 1997 HCP, in turn, adopted the .5 to 1 ratio as a result of negotiations among wildlife agencies, local governments and developers reaching back to 1994. In their letter dated August 8, 1994, (EXHIBIT 6,), FWS and CDFG initially agreed that a .5 to 1 mitigation ratio "should apply to the gross development of any land in the Basin", but only as to the Giant Garter Snake, and several other species using GGS habitat. USFWS/CDFG stated that there must be additional habitat areas, in addition to the .5 to 1 ratio, for other species not using GGS habitat. *Id.* p. 2. "Species conserved by including upland habitat components, in addition to the .5 to 1," included Swainson's Hawk and four other species.

O1-22

The wildlife agencies also required that all GGS habitat provided under the .5 to 1 mitigation ratio be converted to marsh. "The Service and the Department accept this ratio (.5 to 1) based on the assumption that doubling or tripling of habitat values on half the land base is possible only through restoration and management of natural wetland habitat. . . We have not seen any studies indicating that two to three-fold enhancement of giant garter snake habitat values can be achieved on lands devoted to agricultural production." *Id*, pp. 3, 4. Other key requirements included canal bank management, unobstructed connectivity, and permanent 250 meter buffers. "Participation by water companies and reclamation districts is essential to the design and management of the HCP habitat preserve." *Id.*, p. 6.

O1-22(B)

O1-22(C) The FWS/CDFG letter of September 28, 1994 (EXHIBIT 7) outlined additional components of the "package" for .5 to 1 mitigation, including designation of priority areas for habitat acquisition, exclusionary zones where "take" (development) would not be allowed. *Id.* p. 2; best management practices for water conveyance facilities. *Id.* p. 3. In its December 7, 1994 memo, (EXHIBIT 8), the Service also said that "habitat conservation must occur prior to habitat destruction...". *Id.* p. 2.

O1-22(D) The Draft NBHCP omits most of the protective measures which initially made the.5 to 1 mitigation acceptable to the wildlife agencies. Only 25% of mitigation lands are to be converted to managed marsh. There is no additional mitigation, in excess of .5 to 1, for destruction of SWH habitat. Buffers between urban development and habitat preserves can be urbanized after acquisition of the mitigation habitat land. There is no mechanism for unobstructed connectivity between habitat preserve units, (see below), no priority zones for habitat acquisition, no "no-take" zones, and no conservation of habitat before habitat destruction. Measures in the NBHCP pertaining to management of waterways for benefit of species are fictitious because RD1000 and NMWC withdrew from the Draft NBHCP in February 2002 and have refused to sign it.

c. The Acceptability Of The .5 To 1 Mitigation Ratio In The Former NBHCP Was Based On The Assumption That Development Would Not Exceed 17,500 Acres, And That The Rest Of The Basin Would Remain In Agriculture. The Draft NBHCP Now Anticipates Considerably More Development, And The City Is Proposing Development That Greatly Exceeds The Former 17,500 Acre Threshold.

O1-23 The former NBHCP's conclusion that a .5 to 1 mitigation ratio would work was based upon the assumption that development in the Basin would not exceed 17,500 acres during the next 50 years, and that much of the rest of the Basin would remain in agriculture, notably rice, which would augment the habitat value of the reserve lands. *NWF v. Babbitt* (2000) 128 F. Supp. 2d 1274, 1281.

The current draft NBHCP anticipates that there will be substantial development in the Basin beyond the 17,500 acres covered by the NBHCP and MAP HCP (subject to new permit and mitigation requirements), (NBHCP IV-18), but fails to account for the impacts in its conservation strategy. City staff have proposed a "Joint Vision for Natomas", which, when approved by City Council, will designate an area of 10,000 acres in Natomas for inclusion in a Sphere of Influence for future annexation and urban growth. (EXHIBIT 5). The failure of the Draft HCP and DEIS/EIS to address the potential effects of this future development raises serious questions about the viability of the conservation strategy.

O1-24 **d. The Reasons Asserted For The .5 To 1 Mitigation Ratio Lack Credibility And Factual and Scientific Support.**

New biological information developed as part of the EIR/EIS process reveals that the basic premise of the mitigation ratio, established in the 1997 NBHCP and continued in the current draft NBHCP, is not supported by biological evidence. The false premise of the mitigation ratio is that the Natomas Basin is a mix of habitat and non-habitat, and that lands acquired as mitigation will have far superior habitat values than lands converted to urbanization.

O1-24 *See* Draft NBHCP IV-5, I-18, 19, VII-67. In the EIR/EIS process, GIS analysis showed that virtually all of the undeveloped parts of the Basin support either Giant Garter Snake or Swainson's Hawk and other covered species.

O1-24(B) The draft NBHCP fails to consider this important scientific data, and the resulting possibility that habitat destroyed may have habitat value equal to or greater than the habitat value of the mitigation land. The NBHCP fails to quantify how much habitat in the permit area is "inferior" habitat and how much is "superior" habitat; and how much mitigation habitat will be superior to, or inferior to, the habitat permitted to be destroyed by the NBHCP. The Draft NBHCP fails to provide information to back its conclusion that each acre of Natomas habitat subject to urbanization is so degraded that its loss can somehow be compensated through the inadequate mitigation ratio.

O1-24(C) There is no evidence that Natomas Basin habitat has less habitat value than other farmland habitat (including fallow land) in San Joaquin, Yolo, south Sacramento County, and the Bakersfield area, where the mitigation ratio is 1 to 1 for development of ordinary farmland. There is no explanation as to why Natomas habitat is worth mitigating at only .5 to 1, whereas similar habitat in the region is mitigated at 1 to 1, or greater for aquatic habitat and canals. Almost all species habitat in the Central Valley and southern California has been impacted by at least a century of agriculture and other human uses.

O1-24(D) The previous findings of the wildlife agencies, cited above, that Natomas supports critical populations GGS and SWH, are strong evidence that Natomas habitat is better than habitat elsewhere, for GGS and SWH, and therefore merits a higher level of mitigation than 1 to 1 replacement.

O1-24(E) The USFWS American River Watershed Investigation, Natomas Area, Substantiating Report, Vol. IV, November 1991, found that :"The Natomas Area supports a highly significant and diverse Sacramento Valley wildlife assemblage. ...Natomas includes one of the last and largest expanses of unurbanized natural overflow land and highly significant, essentially irreplaceable wildlife ecosystems in the southern Sacramento Valley Region." *Id*, pp. 33, 34. This theme is echoed in other scientific documents. Recent degradation is a result of development permitted under the former NBHCP, decisions by landowners to fallow or degrade land to in anticipation of development, intensified vegetation removal by the water agencies, and tree removals and illegal wetland filling by the County of Sacramento.

O1-24(F) The draft NBHCP asserts that GGS-friendly management of rice farming by the NBC will substantially increase habitat value of rice farms acquired for mitigation land, (HCP I-18, VII-67), but fails to describe the Conservancy's management techniques which so greatly enhance the habitat value of rice farming as to justify a .5 to 1 mitigation ratio. The Conservancy leases its rice farms to farmers using conventional rice-farming techniques, and the use of herbicides and pesticides, including the controversial "Warrior" pesticide, is allowed on Conservancy lands.

A .5 to 1 ratio mitigates for destruction of habitat values only if the habitat value of the mitigation land is trebled (original habitat value of mitigation land plus creation of new habitat

value equal to the habitat value of the parcel twice this size that was destroyed). The wildlife agencies' letter of August 8, 1994, supra, correctly pointed out that there are no studies showing that two to three-fold enhancement of giant garter snake habitat values can be achieved on lands devoted to agricultural production. (EXHIBIT 6, p. 3). No doubt rice farming and land management on NBC preserves is more wildlife-friendly, but certainly not enough to claim a doubling or trebling of habitat values and populations of protected species.

O1-24(F)

The draft NBHCP claims that conversion of 25% of NBC lands to managed marsh greatly increases habitat values for GGS (HCP I-19, VII-67), but offers no scientific basis or study or any information that demonstrates that managed marsh will, in fact, multiply habitat values and GGS populations. Severely compromised functional habitat connectivity and habitat fragmentation by urbanization remain as very serious problems which are not addressed by the managed marsh strategy. The assumption that managed marsh, as designed by the NBC and described in the draft NBHCP, will fully mitigate for impacts on GGS arising from destruction of much larger areas of existing occupied GGS habitat, remains an unproven hypothesis, which is too speculative to be the basis for a risky and unproven .5 to 1 mitigation ratio for the taking of a critical population of an imperiled species.

O1-24(G)

The .5 to 1 mitigation ratio is made even more unworkable by the incompatible habitat needs of GGS and SWH. GGS is an aquatic snake that is usually in or near the water. SWH is raptor which hunts for small rodents in upland fields. The assertion in the Draft NBHCP, p. V-19, that rice fields can be managed to "greatly increase the habitat value of ricelands" for SWH foraging habitat ignores these basic scientific facts. Rice fields are typically flooded in late spring, shortly after the arrival of the SWH, and are unusable for foraging by SWH until after harvest in September and October, by which time the SWH have departed for Mexico. The rice field edges and fallow fields within rice areas are used as foraging habitat by the low-flying Northern Harrier (Marsh Hawk).

O1-24(H)

The NBHCP resolves the incompatibility of habitat needs by dedicating 75% of the mitigation land to GGS habitat (rice and managed marsh), and severely undermitigates for take of SWH habitat by dedicating only 25% of the NBC preserves to upland suitable for SWH foraging, even though the majority of land developed under the NBHCP is SWH foraging habitat. As explained elsewhere in our comments, 25% of a .5 to 1 mitigation ratio does not come close to protecting SWH from development threats. Further discussion of this issue is set forth in the separate comment letter by the Swainson's Hawk Technical Advisory Committee, dated December 1, 2002, and a separate comment letter by the Friends of the Swainson's Hawk.

O1-25

4. The Draft NBHCP Fails to Protect Aquatic Habitat Connectivity or Mitigate For Disruption Of Aquatic Habitat Connectivity Necessary for the Survival of the Giant Garter Snake

GGS move around to find suitable habitat and food (tadpoles, frogs, small fish) as conditions in the rice fields, marshes, canals, and ditches change, especially during the dry summer months. "Thus connectivity between canals and ditches in different areas and between these systems and other habitat types is extremely important for genetic interchange and ability to find summer habitat." (Draft HCP p. II-13). Some of these canals were destroyed or severely

degraded by urban development under the invalid ITP issued to the City under the former NBHCP. More will be destroyed or made unusable for GGS by development permitted by the MetroAirPark HCP and the Draft NBHCP. The maps of current water drainage and delivery canals in the draft NBHCP, Figures 3 and 17, show a number of irrigation canals within the City and MAP area that, in fact, have already been destroyed or made non-functional due to development. Those canals within the City shown on Figure 17, as "most likely to remain", were severely degraded by urban development and modification permitted by the City's invalid ITP and are no longer functional connectivity habitat. The canals running through MetroAirPark will be destroyed, except for a narrow canal paralleling Lone Tree Rd. See comment letter of Eric Hansen, Giant Garter Snake expert, regarding Metro AirPark HCP, January 20, 2001. (EXHIBIT 9) Environmental organizations have also written a 60 day letter notifying U.S. Fish and Wildlife Service of their intent to challenge the approval of a take permit for Metro Air Park. (See letter, EXHIBIT 10)

The South Sutter County Specific Plan, for 3500 acres of industrial development, adopted April 17, 2002, is within the area covered by the Draft NBHCP. It includes a strip of development one mile wide and four miles long running east-west across Basin from the NEMDC to the North Drainage Canal, creating a barrier across the Basin and destroying wildlife habitat connectivity, particularly aquatic habitat connectivity for the Giant Garter Snake. The barrier is completed by an intended 1400 acre wastewater disposal area between the North Drainage Canal and the Sacramento River. This industrial barrier would prevent GGS from moving between the northern and southern portions of the Basin, and would isolate NBC preserves in Sutter County. The Draft NBHCP requires no buffer between canals and adjacent urban development. It must be assumed that habitat values of remaining waterways passing through Sutter's development will be destroyed by modification and urban impacts. This development-created barrier would likely have major adverse impacts upon GGS and would severely impact the viability of the Natomas population of GGS. The DEIR/EIS fails to address this issue

The U.S. Fish and Wildlife Service, in its comment letter to Sutter County during CEQA review of the Specific Plan, expressed very strong concerns about the potential destruction of wildlife habitat connectivity by Specific Plan development, as did Eric Hansen, Consulting Wildlife Biologist and GGS expert. Copies of these letters, dated December 20, 2001, are included as EXHIBITS 11 and 12.

The Draft NBHCP does nothing to protect aquatic habitat connectivity or to replace habitat connectivity destroyed or degraded by development permitted by the NBHCP. A .5 to 1 mitigation ratio, based on acreage, does not replace or protect destroyed connectivity. Vague and unenforceable measures are discussed at pp. IV-7 – 9, for maintaining connectivity between NBC preserves, including unspecified "appropriate actions", "moving reserve components," "consolidating reserve acquisitions" (meaning, selling preserves and buying new ones with better connectivity), easements and other transactions requiring consent of third parties. The Draft HCP also claims that the land use jurisdictions will promote compact growth, which is belied by Sutter's huge industrial-commercial reserve, and the City's recent "Joint Vision" proposal. The Draft NBHCP fails to address the protection of aquatic habitat connectivity except as to NBC preserves.

The Draft NBHCP proposes various GGS-friendly waterway management techniques for RD 1000 and NMWC, but those agencies withdrew from the NBHCP in February 2002 and have not agreed to implement these measures.

Adoption of the EIR/EIS preferred Alternatives One or Two, increased mitigation to 1 to 1 ratio, would provide better assurance of habitat connectivity because ownership of larger parcels, and increased opportunities to acquire lands that will complete connectivity.

O1-25 We defer to the anticipated comment letter by Eric Hansen, Consulting Wildlife Biologist and expert on GGS, for further discussion on aquatic habitat connectivity.

5. Measures For Protection of Habitat Provided by Natomas Waterways and Canals Are Inadequate and Rely On Voluntary Actions of Water Agencies Which Have Withdrawn from the NBHCP

Natomas drainage and irrigation canals, and land alongside the banks of the canals, provide valuable habitat for GGS. Of critical importance to the survival of GGS is the presence of vegetated cover on the canal banks. (HCP p. I-15). GGS are vulnerable to predation in unvegetated canals. (HCP p. II-10). The NBHCP prescribes various Best Management Practices

O1-26 to be used by RD 1000 and NMWD. However, RD 1000 and NMWC withdrew from the NBHCP discussions in February 2002, and have stated that they will not participate in the NBHCP unless certain issues are resolved to their satisfaction. There is no evidence that they have agreed to implement all of the measures contained in the NBHCP. Implementation of any of the NBHCP's measures by RD 1000 and NMWC would be purely voluntary, and for that reason cannot be relied upon as part of the NBHCP's ongoing conservation strategy.

We defer to the anticipated comment letter by Eric Hansen, Consulting Wildlife Biologist and expert on GGS, for further discussion on the adequacy of measures proposed for management of canals and waterways.

O1-27 **6. The Draft NBHCP Fails to Prevent Potential Take of Species and Habitat Due To Contamination By Wastewater Discharge From Sutter County's Proposed Industrial Development Permitted By The Draft NBHCP**

The South Sutter Specific Plan for 3500 acres of industrial development, covered by the Draft NBHCP, allows individual developments to use individual unspecified private "on-site" wastewater disposal facilities indefinitely, until (and if) there is funding to build a conventional public wastewater disposal system. The proposed public wastewater disposal system, if it is ever built, would include a 100 acre unlined effluent basin 16 feet deep, and discharge of treated wastewater onto an area of at least 1,400 acres in Natomas (between the North Drainage Canal and Sacramento River), which would grow corn (to soak up nitrates). See South Sutter County Specific Plan, Infrastructure Master Plan, in the possession of CDFG and USFWS. Relevant pages of the adopted Infrastructure Master Plan are attached as EXHIBIT 13.

Much of the proposed 1,400 acre wastewater disposal areas is outside of the NBHCP's permit area. The 1,400 acre wastewater treatment area is not included in the County's application for "take permit" but would effectively eliminate both wetland and upland species habitat values in that 1,400 acre area. A portion of the wastewater area is within the "Swainson's Hawk Zone" portion of Sutter County, which the NBHCP states will be taken out of urban designation in the Sutter County General Plan.

The South Sutter Specific Plan prescribes no measures to prevent discharges of wastewater into the Natomas Basin ecosystem. Septic systems don't work in Natomas due to impermeable clay soil. Once into RD 1000 canals, wastewater could potentially be circulated throughout Natomas Basin. Wastewater discharges, treated or untreated, from these private facilities and the 1,400 acre wastewater disposal area, would drain into the RD1000 drainage canals that are habitat for GGS and other aquatic animals and which also provide irrigation water to rice fields which are habitat for GGS and numerous other wetland-dependent species.

The content of Sutter's industrial-strength wastewater is unknown, but experience has shown that wastewater, depending upon content, can have serious and long-lasting deleterious effects upon aquatic organisms. Particularly vulnerable would be amphibians and small fish which are the food of the GGS.

Assuming that the Sutter facilities are properly permitted by the Regional Water Board, there is no guarantee that facilities would remove industrial toxins, which would likely include, at minimum, chemicals and industrial solvents used by industries. Accidental discharges from private wastewater facilities and small community facilities are not uncommon, often resulting from negligent or inattentive operation, lack of maintenance, operator error, insufficient capacity, or heavy rainfall or a localized flood which causes overflows. A substantial portion of the South Sutter Specific Plan is located within the 100 year flood plain. Experience elsewhere has shown frequent instances of industrial operators illicitly disposing of toxins by pouring them into the sewage system.

Serious concerns about impacts of discharges were expressed by letters to Sutter County during the CEQA comment period by the Central Valley Regional Water Board, and Reclamation District 1000, and in RD 1000's opening brief in the pending CEQA lawsuit on the Specific Plan. (EXHIBITS 14, 15, 16, 17, 18). The Natomas Basin Conservancy pointed out that there is no market for rice irrigated with sewage, and expressed concerns about potential contamination of Conservancy preserves. (EXHIBIT 19, pp. 2, 4). Poisoning of protected species or destruction of species habitat by contaminants contained in wastewater is unlawful taking under the Federal and California ESAs. The potential for discharge of toxic wastewater from development in the South Sutter Specific Plan poses a significant threat to aquatic species throughout the Natomas Basin, including GGS and prey species eaten by GGS.

There is no financially responsible party to clean up and re-mediate any wastewater discharge that may occur, unless the regulatory agencies trace it to a solvent offender and prevail in an enforcement action.

The wildlife agencies should not issue an ITP for any development which carries the potential to contaminate the Natomas aquatic ecosystem with sewage, and industrial toxins and discharges. Issuance of permits by the Water Board does not assure that there will be no such discharges. Indeed, the Water Board and RD 1000 are very dubious about the efficacy of Sutter's proposals for wastewater disposal; and have urged Sutter's completion of operational community wastewater facilities prior to development.

O1-27 The only responsible course is for the wildlife agencies to condition issuance of an ITP to Sutter County only upon Sutter's prior completion of public wastewater collection and treatment facilities which do not discharge into Natomas Basin.

O1-28 **7. The Draft NBHCP Unreasonably Jeopardizes the Continued Viability Of Covered Species By Failing to Require Protection Of High-Value Habitat Areas With Known Populations of Covered Species, and By Allowing All Mitigation Acquisitions to Be Located in Sutter County**

Draft NBHCP Figures 12 and 13, maps of records of GGS and SWH, shows the species distributed throughout Natomas Basin, but with records of sightings concentrated at certain locations. These records indicate significant species populations at those locations, largely in Sacramento County. Most SWH foraging habitat is in Sacramento County. Some of these records have been consistent year after year. A logical habitat mitigation program would seek to acquire preserves in these areas of known concentrated species use, particularly where a .5 to 1 mitigation ratio greatly limits what can be acquired. However, this was not done under the former NBHCP until required by the May 15, 2001 Natomas Settlement Agreement.

The NBC's first land acquisitions were 3 adjoining parcels of 338 acres in Sacramento County, next to Sutter County. All subsequent acquisitions, until the August 15, 2000 Federal Court decision, were in Sutter County, totaling 1313 acres, in locations then having minimal records of presence of GGS or SWH, for prices between $3,600 and $4,500 per acre. The NBC did not acquire any more land in Sacramento County, because it was more expensive than Sutter County land; nor did the NBC ask the City to increase the mitigation fee so that lands could be acquired in Sacramento County. The NBC was under strong pressure from developers to minimize costs to minimize mitigation fee increases.

The May 15, 2001, Natomas Settlement Agreement required, at plaintiffs insistence, that all habitat acquisitions under the settlement agreement be within Sacramento County, in areas designated as "Zone 1" (Fisherman Lake area) and "Zone 2" (between Sacramento, Sutter County line, NEMDC, and Powerline Road). These areas have documented significant populations of GGS or SWH.

The Executive Director of the NBC repeatedly stated his opposition to the requirement to acquire within designated zones or within Sacramento County because of higher land prices. Nonetheless, 1,145 acres of mitigation reserves, with documented habitat values for GGS and SWH, were acquired in Sacramento County, for prices between $7,500 and $11,000 per acre, that obviously would have not been acquired otherwise.

Land prices in unincorporated Sacramento County, will always be higher than in Sutter County, outside of the Specific Plan area, due expectations of development entitlements. The EPS Revised Fee Estimate, October 11, 2002, p. 9, assumes NBHCP mitigation land acquisition prices averaging $6,000 per acre, which will not buy land in the Sacramento County area of Natomas Basin.

The history of the NBC's land acquisitions, and the low-ball acquisition cost in the Revised Fee Estimate of the NBHCP, leads to the conclusion that if the NBC is allowed to acquire anywhere in the Basin, it will very likely resume its past practice of buying mostly lower-cost properties in Sutter County, to the exclusion of more expensive properties in Sacramento County that may have greater documented biological values. The City states that the requirement of 400-acre minimum size for preserves will require the NBC to acquire more land in Sacramento County, to complete three reserve blocks that are presently less than 400 acres each. However, the NBHCP imposes no timeline for increasing reserve parcels to 400 acres, and the wildlife agencies do not have authority to impose enforceable deadlines for meeting this requirement. The Draft NBHCP allows waiver of the minimum reserve size requirement.

The EIR/EIS and NBHCP arbitrarily fail to consider the potential impacts of permitting a cost-focused mitigation strategy that would lead to concentration of future acquisitions of mitigation lands in Sutter County, to the exclusion of further acquisitions in Sacramento County. Please refer to additional detailed comments on this issue in a separate letter submitted by Friends of the Swainson's Hawk.

O1-28

8. The Draft NBHCP Jeopardizes the Continued Existence Of Covered Species In Natomas Basin of By Allowing 20% of Mitigation Acquisitions to be Outside of The Natomas Basin

As discussed above, the wildlife agencies have found that the Natomas Basin populations of GGS and SWH are critical to the survival and recovery of both species. Failure of the NBHCP to preserve these critical Natomas Basin populations could jeopardize survival and recovery of these species. The .5 to 1 mitigation ratio is very risky. Allowing 20% of the mitigation land to be acquired out-of-Basin effectively reduces the mitigation ratio to .4 to 1, for the Natomas populations of GGS and SWH whose survival is the goal of the NBHCP. There is no reasonable basis for authorizing out-of-Basin mitigation, and increasing the risk to Natomas Basin species populations by allowing it.

O1-29

The 1997 HCP prohibited acquisition of upland habitat outside the Basin. The 2002 NBHCP does not include this restriction. Please see separate comments by the Swainson's Hawk Technical Advisory Committee and Friends of the Swainson's Hawk on the likely impact of out-of-basin acquisitions of lands intended to mitigate for loss of Swainson's Hawk foraging habitat in the City of Sacramento.

9. The Draft NBHCP Unreasonably Relies Upon The Assumption That Substantial Areas Of Unprotected Private Lands In Natomas Will Voluntarily Remain In Agriculture Despite Urban Development Permitted by the NBHCP

The Incidental Take Statement in the Draft NBHCP, p. VII-3, states that the greatest impact of urbanization on covered species is the loss of farmland, but that agriculture will continue in the Basin and will to provide habitat for GGS and SWH. The NBHCP and Draft EIR/EIS do not consider the possibility that those effects of urbanization which are detrimental to agriculture (such as restriction or prohibition of aerial seeding of rice fields and aerial application of agricultural chemicals), development ambitions of landowners, and decisions by local government, may lead to severe decline of agriculture, with detrimental impacts on species, as a consequence of the development permitted by the NBHCP. The Draft NBHCP, p. III-17, points out a "trend of property owners in urbanizing areas to fallow rice field in expectation of urban development."

O1-30

The NBHCP cannot reasonably assume that landowners will voluntarily remain in agriculture as the area urbanizes under the NBHCP. For example, nothing prevents local government from re-zoning agricultural land to small-parcel agricultural-residential ("ag-res") zoning, which would effectively destroy habitat.

10. The Draft NBHCP Conservation Strategy Unreasonably Relies Upon The Assumption That Sacramento County Will Voluntarily Retain Existing Agricultural Zoning In the Swainson's Hawk Zone and Not Permit Development In That Area

The Draft NBHCP, p. IV-22, says that "the primary strategies to mitigate impacts to the Swainson's hawk . . . are to avoid development in the Swainson's Hawk zone and to acquire upland habitat as Mitigation Land inside the Swainson's Hawk zone." (Incorrectly shown in Draft Figure 13).

O1-31

However, most of the SWH zone is within the unincorporated area of Sacramento County, which is not a party to the NBHCP. Nothing prevents the County from rezoning for development (hopefully with incidental take permits), or, as is more practicable, rezoning for small-parcel agricultural-residential development, which effectively destroys habitat values. There are numerous ag-res parcels east of Natomas, and in southern Sacramento County. Since the inception of the former NBHCP, Sacramento County has allowed some small-parcel development in Natomas without incidental take permits. (EXHIBIT 1). The NBHCP arbitrarily fails to address the risks and impacts of continued incremental development in Sacramento County's area of Natomas to the SWH.

O1-32

11. The Draft NBHCP Conservation Strategy Unreasonably Relies Upon The Assumption That There Will Be Continued Water Supply To the NBC's Reserves Despite Impacts of Urban Development and Decline of Agriculture, and Despite Possibility of Loss of Water Arising from Regulatory Actions or From Water Transfers.

The Draft NBHCP mitigation strategy for GGS relies upon continued habitat connectivity provided by RD 1000 and NMWC canals, and upon delivery of water to NBC preserves and to

rice farms and canals that are GGS habitat. However, the NBHCP p. VII-62, also admits that if urban development occurs at levels that reduce or eliminate agriculture in the Basin, the components of the irrigation system that support GGS would likely also decline, "probably resulting in extirpation of the GGS from the Basin."

Although the NBHCP mitigation strategy relies upon continued canals and water delivery, the NBHCP includes no "cap" on development, or any other measures that would ensure the continued existence of waterways in Natomas sufficient to support GGS. The HCP must address the possibility that development permitted under the NBHCP, plus the pending Sacramento "Joint Vision" (which potentially could convert another 10,000 acres of rice farms to urban development) could lead to very serious decline of the waterways which service rice farming.

The Draft NBHCP, p. IV-32, points out the possibility of long-term water shortages due to potential future regulatory action. Moreover, water users south of the Delta have began negotiating the purchase of large quantities of water from Sacramento Valley agricultural water users. See EXHIBIT 20, Sacramento Business Journal. There is no evidence that sufficient groundwater would be available to replace surface water if Natomas Mutual Water Company ceased supplying surface water. The DEIS points out that there has been no determination of sustainable yield of the aquifer. Any conclusions on that topic would require complete scientific studies which has not been performed.

Given the demand for water in the State of California and the potential for water transfers out of the Basin, the availability of adequate water supply to support Giant Garter Snake and aquatic species in the Basin is critical. The best way to ensure water availability is for NBC to acquire sufficient land with water rights and accompanying shares of NMWC stock, so that NBC would have a controlling interest in Natomas Mutual Water Company. There is no evidence that ground water could support the preserve system, and surface water is necessary to the connectivity between preserves or to maintain waterways and continued cultivation of rice in Natomas Basin.

O1-32

O1-33

12. The Draft NBHCP Conservation Strategy Is Infeasible Due To Probable Effects Of Sacramento's Proposed "Joint Vision For Natomas"

The City of Sacramento recently released its proposed "Joint Vision for Natomas", EXHIBIT 5, calling for creation of a Sphere of Influence ("SOI") of 10,000 acres for future annexation and urban growth north of Elkhorn to the County line, and between MetroAirPark and the NEMDC, all of which would be in excess of the 17,500 acres covered by the NBHCP. The USFWS and CDFG expressed major concerns about "Joint Vision" in their joint letter dated September 16, 2002. "Joint Vision" is supported by top-level City and County executives and Councilmembers. It is very likely to be adopted.

It is very clear from the "Joint Vision" documents and draft MOU, and statements by City staff and Councilmembers, that the "Joint Vision" is the first step towards approval of up to 10,000 acres of new development. The cumulative impacts of potential "Joint Vision" development, in addition to the 17,500 acres of NBHCP development, is not considered in the

draft NBHCP and EIR/EIS, nor in the NBHCP's conservation strategy. Three obvious impacts not addressed by the draft NBHCP and EIS/EIR are:

(1) The cumulative impacts of up to 27,500 acres of new development, instead of 17,500 acres, upon species and the environment, and the effect upon the feasibility and implementation of the draft revised NBHCP mitigation strategy designed for 17,500 acres of development.

(2) Development of a substantial portion of the SOI area, in addition to development permitted by the NBHCP, and MetroAirPark HCP, may jeopardize the survival and recovery of the GGS despite any mitigation program. The great majority of locations of GGS records in Natomas, to date, are within the proposed SOI area and the areas permitted to develop under the MetroAirPark and NBHCP (see Draft NBHCP, Figure 12, "Giant Garter Snake Records"). Maintenance of a viable GGS population in Natomas is essential to the survival of the species See USFWS Biological Consultation, March 11, 1994, p. 5, EXHIBIT 3.

(3) It will very likely be impossible for the NBC to acquire mitigation land within the 10,000-acre "Joint Vision" SOI area due to landowner expectations of development entitlements flowing from the proposed Joint Vision MOU.

The latter will have an immediate impact on implementation of the NBHCP because much of the proposed "Joint Vision" SOI is valuable GGS habitat with documented GGS populations, and also provides essential habitat connectivity. During the Natomas Settlement Agreement negotiations, the U.S. Fish and Wildlife Service expressed concern about protection of that area, and suggested designation of a large "GGS Protection Zone" within the SOI Study (which the City failed to do). The NBC owns three disconnected habitat mitigation preserves within the proposed SOI area. Two are less than the minimum 400-acre size required by the NBHCP. Inflated land prices within the SOI area will very likely make it impossible to establish habitat connectivity and expand two of the NBC preserves to the minimum 400-acre size required by the revised NBHCP. Urban impacts of development permitted within the proposed SOI area, in combination with neighboring Sutter County development, will substantially diminish the biological value of the existing NBC preserves within the SOI area.

The "Joint Vision" MOU designates a 10,000 "Area of Concern", ("AOC") west of the City and west of the Airport, of which 4,400 acres is County-owned as Airport buffer and unavailable for NBHCP mitigation. Although City staff say that the "AOC" area will remain permanent open space, the draft "Joint Vision" MOU does not prohibit the County from permitting urban development within the "AOC" or from rezoning agricultural land to small-parcel agricultural-residential use that destroys habitat values. Many, or most, landowners in that area want to sell to developers.

O1-33

O1-34

13. The Draft NBHCP Fails to Consider the Impacts Of Reasonably Foreseeable Development, Beyond That Permitted by the NBHCP, Upon the Implementation and Efficacy of the NBHCP Conservation Strategy.

The Draft NBHCP and EIR/EIS fail to consider the combined environmental effects of

development permitted under the NBHCP and other development reasonably foreseeable in Natomas Basin, and fails to consider the impacts of other foreseeable development upon the implementation and efficacy of the conservation strategy of the NBHCP. Instead, the NBHCP simply postpones those issues until there is an application for a take permit covering new development.

Foreseeable new development includes "Joint Vision for Natomas", supra, for up to 10,000 acres of new development; County Airport's intended terminal expansion and third runway, needing up to 800 acres of development; construction of new or expanded highway, drainage, and other infrastructure in Natomas Basin; proposed levee improvements by SAFCA; and of course new development authorized by Sacramento County, which is not covered by the NBHCP. The latter could potentially include conversion of existing agricultural zoning to small-parcel agricultural-residential, which would be highly destructive of habitat values.

Sacramento County has already permitted small-scale projects in Natomas without Incidental Take Permits or mitigation for impacts on species, described in EXHIBIT 1. The County does not intend to discontinue that practice. USFWS and CDFG have taken no action to requires ITP's or mitigation for small County-permitted developments in Natomas. Earlier in 2002, it was discovered that the County had removed nearly 100 trees on biologically valuable lands owned by the County as Airport buffer, including three documented SWH nest trees; and that the County had illegally filled approximately thirty acres of wetlands in Natomas.

O1-34

O1-35

B. There Is No Basis for the Assertion that the Applicant Will Minimize and Mitigate to the Maximum Extent Practicable (Federal ESA).

1. The Draft NBHCP Is Environmentally Inferior to Alternatives Analyzed by the DEIR/EIS

The Draft EIR/EIS evaluated five Alternatives. (EIS p. 2-49 – 2-53). Four of these alternatives are environmentally superior to the Draft NBHCP:

Alternative Two: habitat based mitigation, 17,763 acres of habitat reserves to mitigate for 17,500 acres of development, other elements same as Draft NBHCP, found to be the Environmentally Preferred/Superior Alternative.

Alternative One: mitigation ratio of 1 to 1, other elements same as Draft NBHCP.

Alternative Three: mitigation ratio of .5 to 1 and other elements are the same as Draft NBHCP, except that preserve acquisitions must be focused within five designated zones having recognized biological value, 6,500 acres of preserves would be within these zones, the balance anywhere in Natomas Basin. No out-of-Basin mitigation.

Alternative Four: mitigation ratio of .5 to 1, same as Draft NBHCP, except it reduces impacts to species by reducing development from 17,500 acres to 12,000 acres.

The Draft NBHCP is environmentally inferior to the above four Alternatives, because it permits 17,500 acres of development, rather than 12,000, mitigated at .5 to 1, rather than 1 to 1, and mitigation acquisitions can be anywhere within the Basin, with potential for 20% of acquisitions to be out of basin, instead of prioritized on areas of known biological value (Alternative 3)

The burden is upon the Applicants to show, by substantial evidence, that their Draft NBHCP minimizes and mitigates to the maximum extent practicable, and that none of the environmentally superior Alternatives are practicable. See *NWF v. Babbitt*, (2000), 128 F. Supp. 2d 1274, 1292.

O1-35

O1-36

2. There Is No Basis for the Assertion that A Mitigation Ratio Greater than.5 to 1 Is Not Practicable. City Has Stated That A Mitigation Ratio of One to One Is Feasible For Subsequent Natomas Development.

Applicants' claim that a mitigation ratio in excess of .5 to 1 would likely make development infeasible (Draft HCP p. VII-69). This assertion is rebutted by the City's own draft Joint City-County Shared Policy Vision in Natomas dtd September 17, 2002, (EXHIBIT 5, p. 14) which says that development under "Joint Vision" will be required "to provide permanent open space, preserved in the Natomas area, at a mitigation ratio of at least one-to-one." Although "Joint Vision" has not yet been adopted by the City Council, it is a document prepared and approved by top-level City staff. The City Manager and other top-level staff have repeatedly told representatives of environmental groups and the public that "Joint Vision" will require a mitigation ratio of one acre of permanent open space, in Natomas, for each acre developed under "Joint Vision.

Because the City has determined that 1 to 1 open space mitigation is feasible for development under "Joint Vision", there remains no credible basis for the City's assertion that 1 to 1 mitigation is impracticable for the NBHCP. Although "Joint Vision" open space would include both habitat and other potential uses, there is no reason to believe that the cost of acquiring land for "Joint Vision" open space would be different than acquiring land for NBHCP mitigation at a ratio of one to one. Management costs of NBC preserves would not be higher than management costs of other open space uses. Indeed, the Draft NBHCP calls for conversion of only 25% of NBC lands to managed marsh, with 50% of the remainder leased to rice farmers, and 25% as upland habitat, most likely in agricultural use. The proposed Acceptable HCP, for 1.17 acres of habitat acquired for each acre of future development, would cost little more.

The Brookfield Homes/NTI developers, who are seeking development entitlements, outside of the NBHCP, have committed to a one to one mitigation ratio for habitat loss. (EXHIBIT 4).

Increasing the mitigation ratio from .5 to 1 to 1 to 1 (Alternative One) or to a habitat-based mitigation ratio described in Alternative Two (which averages as one to one) does not necessarily result in doubling the mitigation fee. Economies of scale will substantially reduce the per-acre cost of land management and NBC administration. A mitigation ratio of 1 to 1, instead of .5 to 1, would allow reduction of the "managed marsh" component of NBC preserves

from 25% to 12.5% to achieve the same area of managed marshes. This would result in a substantial reduction in the restoration component of the per acre mitigation fee.

Under a 1 to 1 mitigation ratio, the land costs could be reduced further by requiring that mitigation land be acquired before commencement of the development being mitigated. This was required for the beginning and final phases of the development allowed by the May 15, 2001 Natomas Settlement Agreement, and motivated the developers to acquire mitigation land at prices considerably less than what the NBC had been asked to pay. The Natomas Settlement Agreement demonstrated that motivated developers have the ability to acquire mitigation land more readily, and at lesser prices, than the City or NBC. Acquisition "up front" as a condition of development eliminates the need for a large contingency component in the mitigation fee for unexpectedly high land prices, because development would not occur until the mitigation land was acquired. Requiring that mitigation land be acquired within prioritized zones (Settlement Agreement and Alternative 3) and subject to prior approval of wildlife agencies and NBC, would result in development of preserves in desired areas.

The Applicants could further reduce the mitigation fee by announcing that there would be no more development in Natomas beyond the amount allowed by the Draft NBHCP. Inflation of land prices in Natomas is largely attributable to landowner belief that they will someday receive development entitlements. Landowner expectations have been seriously inflamed by the recently proposed City-County "Joint Vision for Natomas" for up to 10,000 acres of new Natomas development, and by pronouncements by top-level City and County executive and elected officials that City and County will plan for major new growth in Natomas beyond that covered by the NBHCP. Mitigation for take of endangered species should not be reduced because of the City's unwise actions.

The median new home sales price in Natomas during the third quarter of 2002 (based on 503 sales) was $315,990, as reported by the Gregory Group in the Sacramento Bee, October 11, 2002, (EXHIBIT 21), which is much higher than the prices reported by the EPS Economic Analysis of the Draft NBHCP. With an average of approximately five new homes per acre in Natomas, total gross proceeds from development of a single acre, assuming the above per home sale prices, is $1,579,950. A mitigation fee of $15,000 per acre (which is $3000 per home) would be approximately one percent of gross sale prices, and only a small fraction of the very large profits being realized by Natomas developers. A fee of $20,000 per acre would be 1.3%. The Draft NBHCP's proposed mitigation fee, $10,000, is 2/3 of 1%. The Applicant's assertion that a mitigation ratio greater than .5 to 1 will make development "infeasible" is ludicrous.

O1-36

3. Experts Have Found That A Mitigation Ratio of Greater Than .5 to 1 Is Feasible, and That The EPS "Economic Analysis" Relied Upon By the NBHCP is Deficient

O1-37

We incorporate by reference the Report letters of Hausrath Economics Group, December 2, 2002, and Center for Natural Lands Management, December 1, 2002 attached to this letter. Hausrath Economics Group has participated in many public planning efforts, including the San Joaquin County HCP. Center for Natural Lands Management manages numerous preserves and conservation easements. Both groups of experts have found that a mitigation ratio of greater than .5 to 1 is feasible, and that the NBHCP's Economic Analysis is deficient.

C. There is No Basis for the Assertion that the Draft HCP Will Have Less than Significant Environmental Impacts.

O1-38 For the reasons stated throughout these comments, there is no basis for the assertion in the DEIS/EIS that the Draft NBHCP will have less than significant environmental impacts. Most of the issues raised in these comments were not adequately addressed or evaluated in the Draft EIR/EIS. Some issues, such as the potential impacts of discharge of Sutter County's wastewater, potential cumulative effects of "Joint Vision" and its effects on implementation of the Draft NBHCP, and the potential impacts of a cost-focused acquisition of mitigation preserves, were not analyzed at all.

D. A SIGNIFICANTLY GREATER MITIGATION FEE, AND A FUNDING GUARANTEE FROM THE LOCAL GOVERNMENTS, WILL BE NEEDED TO ENSURE ADEQUATE FUNDING

1. The Proposed Mitigation Fee Is Inadequate

O1-39 The proposed mitigation fee assumes land prices of $6,000, which may buy land in Sutter County, but not in Sacramento County's area of Natomas Basin, where prices paid for mitigation land ranged from $7,500 to $11,000 per acre from May 2001 through September 2002. Landowner expectations of urban development rights due to the City's announcement of the proposed "Joint Vision" will very likely drive up prices further. As discussed earlier, a cost-based conservation strategy which effectively limits preserve acquisitions to Sutter County will not protect the documented GGS and SWH populations using Sacramento County, which are critical to survival of both species in Natomas Basin.

O1-40 **2. The Draft NBHCP Provides an Inadequate Backup Funding Mechanism to Address Likely Shortfalls**

16 USC §1539(a)(2)(B)(iii) states that the Secretary must find "that the applicant will ensure that adequate funding for the plan will be provided." See *NWF v Babbitt* (2000) 128 Fed Supp 2d 1274, 1294. California Fish & Game Code § 2081(b)(4) states that the "**applicant** shall **ensure** adequate funding to implement . . ." To "ensure" adequate funding means a financial guarantee by a party to pay whatever it costs to carry out an activity, regardless of the circumstances or the actions of the person or entity who has ensured the funding. See *NWF v. Babbitt, supra.*, 128 Fed Supp 1274, 1295.

The back-up funding mechanism of the Draft NBHCP is the same as the former NBHCP, which was overturned by the Court in *NWF v. Babbitt*, supra, due to inadequate back-up funding. The new Plan added two new features: a 200 acre cushion, and a new party (Sutter County). These minor alterations do not remedy the basic problem identified by the Court in *NWF v. Babbitt*. The Plan unnecessarily relies on future mitigation fee payments by landowners who have made no commitment to participate in the Plan. Once the City and Sutter parcels have been developed, or if development stalls prior to build-out (Sutter's development is anticipated to be much slower than Sacramento's), there may not be any future permittee to whom increased costs

may be shifted, and no entity will be responsible for making up the funding shortfall. This frustrates the statutory requirement that funding for mitigation be ensured. *NWF v.. Babbitt, supra.*, 128 Fed Supp 1274, 1294.

Funding is a critical issue for HCP's. As an example, the San Diego HCP ran out of money and was rescued by a very substantial bail-out from a statewide parks and habitat initiative measure.

Like the former NBHCP, acquisition of mitigation land, O and M, monitoring, and other measures required by the Draft NBHCP are to be funded by a one-time fee levied upon acreage to be developed, payable when grading permits are issued. The corresponding mitigation land need not be identified and its price need not be known when the fee is paid and the permit is issued. Once the fee has been paid and Urban Development Permits issued, the developer has met its habitat mitigation obligation requirement and may complete construction even if the fee proves to be inadequate to buy the mitigation land. There is no assurance that the fees paid by a developer will be sufficient to acquire the required habitat mitigation parcels in the future. That is so because the mitigation parcels to be acquired are not known at the time the fee is paid. Therefore, the price of the land cannot be known.

It is also impossible to know the actual future costs of restoration, management, and monitoring that are to be paid with the mitigation fee, until the costs are actually incurred at a future time. These components are over 50% of the Draft NBHCP projected fee. Predicting costs of restoration, management, monitoring, operations (including cost of water for wetland preserves and rice farming), and income earned on the endowment component of the mitigation fee, over the next 50 years is extremely unreliable. There have been tremendous changes in prices during the past 50 years.

Under the former and Draft NBHCP, only the Permittees (City and Sutter County) may increase the mitigation fees. USFWS/CDFG/NBC can ask, but not require, that the mitigation fee be increased. However, neither USFWS/CDFG or anyone else, can know the actual price of future acquisitions of mitigation lands, or the actual costs of future O & M, monitoring, and restoration, or the future income earned on the endowment component of the mitigation fee as adjusted for unknown and unpredictable inflation.

If costs prove higher than fees paid, the Permittee can increase the mitigation fees for future developers. Like the former NBHCP, fee increases will apply only to land developed after the need for a greater fee becomes apparent and is implemented. Unless actual costs prove to be equal to costs projected in setting of the fee (which is rare), the Plan's funding mechanism depends on continual infusion of new developable land to provide funding for mitigation necessitated by previous development. If most of the land within the City or Sutter County permit area has been developed by the time the need for additional mitigation funding becomes apparent and implemented, there may be little or no land left to which an increased fee may be applied. *NWF v Babbitt*, 128 F. Supp. 1274, 1295. This is an obvious concern where, as here, mitigation lands may be acquired 12 months after payment of the one-time mitigation fees that is intended to pay for the mitigation lands.

This is also of major concern as to costs of O & M, restoration, monitoring, adaptive management, recovery plans, mandatory conversion of 25% of NBC lands to managed marsh, and other operational costs, which will extend into perpetuity, long after completion of development and payment of mitigation fees. This has potential to get quite expensive, particularly if cumulative impacts of other Natomas development require the NBC to manage its wetland preserves more "intensely" to avoid jeopardy. Water costs could rise very substantially as decline in rice-farming due to urbanization leaves fewer agricultural customers of Natomas Mutual Water company to share the fixed costs of pumping and maintaining the canals.

The absence of a cap on the revised Draft NBHCP mitigation fees does not address danger of funding shortfall if costs in the future exceed what remains unspent from accumulated one-time mitigation fees, and there is little or no new development to pay increased mitigation fees. The former NBHCP fee cap applied only to adjustments made for adaptive management or recovery plans. See former NBHCP, IA §4.5.7(1).

Revocation of a permit for failure to meet mitigation requirements does not affect developers who have already paid their fees. Draft Implementation Agreement § 7.4 prohibits the wildlife agencies from seeking monetary damages to cure deficiencies resulting from inadequate mitigation fees. The participation of two jurisdictions, Sutter County and the City, does not solve the problem – it only affects the acres subject to the permit. Moreover, the failure of one permittee to fulfill its obligations will not affect the Permits of the remaining Permittee, Draft HCP, p. I-31, unless continuation of the Permits would appreciably reduce likelihood of survival or recovery of a protected species. IA § 7.6.5.

The statutory language of 16 USC §1539(a)(2)(B)(iii) and Fish and Game Code § 2081(b)(4), that the applicant ensure adequate funding, requires a funding guarantee by the Permittee land use agencies; although possibly a sufficient bond by a solvent acceptable commercial surety may suffice. Under this statutory requirement, the Permittee land use agencies can greatly reduce their exposure by revising the Draft NBHCP to require that mitigation land be acquired (with NBC and wildlife agency prior approvals) prior to commencement of the development being mitigated; and by establishing an assessment district, as a condition of development approval, to be available to levy special taxes for back-up funding if needed (provided that the special tax is not subject to landowner vote, and the district is not vulnerable to dissolution by landowners' vote).

O1-40

O1-41

E. THE WILDLIFE AGENCIES CANNOT ISSUE INCIDENTAL TAKE PERMITS BECAUSE THE PERMITTED ACTIVITIES MAY TAKE WHITE TAILED KITE, IN VIOLATION OF CALIFORNIA FISH AND GAME CODE § 3503.5

Taking of the White Tailed Kite is expressly prohibited by California Fish and Game Code § 3503.5. White Tailed Kites are small upland raptors which nest, roost, and forage throughout the entire Natomas Basin, and are present year-around. There is no "mitigation" or permitting for the incidental taking of White Tailed Kite, because the incidental taking of White Tailed Kite is unlawful.

The Draft NBHCP permits development activities which would take individuals, nests, nest trees, roosts, and foraging habitat of White Tailed Kite; but fails to prescribe any measures for avoiding the taking of White Tailed Kite. As far as we can determine, nothing in the Draft NBHCP states that taking of White Tailed Kite is prohibited. For that reason, the Draft NBHCP and proposed Incidental Take Permits are in violation of Fish and Game Code § 3503.5.

The U.S. Fish and Wildlife Service can issue an Incidental Take Permit only for "taking" incidental to activities which are otherwise lawful. ESA§ 10(a)(1)(B). The Service cannot issue an federal Incidental Take Permit for an activity which may take White-Tailed Kite, because the taking would violate California Fish and Game Code §3503.5.

We strongly suggest that the EIR/EIS and NBHCP be revised to disclose the presence, significance, and characteristics of the White- Tailed Kite in Natomas Basin, the prohibition on taking of White-Tailed Kite, and measures that must be implemented to avoid the taking of White Tailed Kite and bring the NBHCP into compliance with Fish and Game Code § 3503.5.

O1-41

On behalf of the Environmental Council of Sacramento, Friends of the Swainson's Hawk, National Wildlife Federation, Planning and Conservation League, and Sierra Club, we extend our appreciation to the USFWS and CDFG as well as the applicants for this opportunity to review the proposed Plan and comment.

Sincerely,

John Kostyack
Senior Counsel
National Wildlife Federation and
also representing
Planning and Conservation League
1400 16th St., NW. Suite 501
Washington D.C. 20036
202-797-6800

James P. Pachl
Legal Counsel
Representing
ECOS, Friends of the Swainson's Hawk
Sierra Club
817-14th St., 100
Sacramento, Ca. 95814
916-446-3978

c: Thomas Lee, Deputy City Manager, City of Sacramento
Larry Combs, County Administrator, County of Sutter
Robert Hight, Director, California Department of Fish and Game

HAUSRATH
ECONOMICS
GROUP

MEMORANDUM

Date: December 2, 2002

To: James Pachl for Friends of Swainson's Hawk and Sierra Club Mother Lode Chapter

Subject: **Comments on the Economic Analysis of the Natomas Basin Habitat Conservation Plan**

At the request of Friends of Swainson's Hawk and the Sierra Club Mother Lode Chapter, Hausrath Economics Group (HEG) has conducted a review of the economic analysis of the July 2002 *Draft Natomas Basin Habitat Conservation Plan* (NBHCP). The comments set forth in this memorandum are based on consideration of the following documents: Draft NBCHP and Appendices (July 2002), specifically Appendix A: *Final Report—Economic Analysis of Natomas Basin Habitat Conservation Plan*, March 12, 2002 and *Addendum: Economic Analysis of the NBHCP*, May 2, 2002, as well as Appendix I: *NBHCP Fee Update*, April 25, 2002; *Revised Fee Estimate based on Draft NBHCP*, October 11, 2002; and the Draft Environmental Impact Report / Environmental Impact Statement for the Draft NBHCP. Figures illustrating some of the data analyzed in developing the comments are included at the end of the memorandum text.

The purpose of the economic analysis presented in the above-referenced documents is to establish, from an economic perspective, that the NBHCP ensures adequate funding and that the mitigation required is the "maximum extent practicable". The analysis concludes that the revenue base established for the NBHCP provides adequate funding in perpetuity and that the proposed mitigation is close to the maximum extent practicable. HEG has reviewed the analysis to determine whether or not these conclusions are justified.

Does the plan mitigate to the "maximum extent practicable"?

O1-42 The economic analysis addresses the economic considerations with respect to the "maximum extent practicable" question. As noted in the analysis (*Final Report*, March 2002, page 19), there are no precise standards in law or guidelines for how to demonstrate this condition.

The economic analysis conducts two tests to analyze the question from the perspective of practicability or feasibility. The first test is a comparison to other habitat conservation plans in surrounding jurisdictions. The second test is a cost burden analysis, again comparing the

O1-42 Natomas Basin situation to conditions in surrounding jurisdictions. To assess the implications of additional mitigation requirements, both tests evaluate alternative mitigation scenarios.

The fee comparison test is inconclusive

The first analysis is a simple comparison of habitat fees per acre of development and shows that the NBHCP fee and alternative fees that assume fewer participants or more mitigation are substantially higher than existing or proposed fees in some nearby and other more distant communities. The relatively weak conclusion is that the comparison "does give an indication of impracticability". (*Final Report*, March 2002, page 22.)

The economic analysis itself acknowledges that: "no two habitat plans are alike." (*Final Report*, March 2002, page 20.) Precisely because of the wide variance in key habitat plan factors, this relatively simple comparison does not support any definitive conclusions. Habitat mitigation fees are the result of a series of decisions that reflect biological, real estate market, and political conditions and compromises in each community. Simply because one set of fees is higher than another is not evidence of the feasibility or practicability of those fees. The fees compared in the economic analysis do not cover the same set of costs. Some of the fees were established several years ago and have not been adjusted for inflation. Some fees are based on a conservation easement strategy that results in substantially lower land acquisition components of the total cost. Some of the plans reflect habitat types that require minimal restoration and enhancement. Land values in the plan areas also are quite different. Some fee programs spread the cost burden more broadly, relying on outside sources to fund substantial portions of plan costs. Not much is demonstrated by comparing apples and oranges except that they are different.

O1-43

Furthermore, the comparison neglects to include fees in other jurisdictions in California that are, in fact, higher, while including fees in jurisdictions such as Bakersfield and Coalinga that do not compete with Sacramento County for development and have substantially lower land values. The comparison does not include San Diego County or other rapidly developing metropolitan areas where land values and, consequently, mitigation costs to new development are more comparable to those proposed for the NBHCP.

O1-44 **The total burden comparison does <u>not</u> support the conclusion that higher mitigation requirements would be impracticable or infeasible**

To develop a more telling feasibility conclusion, the economic analysis considers the NBHCP fees in the context of the cost burden on new development imposed by both the habitat mitigation fees and the costs assigned to new development for other "backbone infrastructure". The purpose of this analysis is to determine whether or not the total cost burden including the NBHCP fee would be so high as to make new development infeasible.

The discussion of feasibility thresholds minimizes the adaptations that occur in other components of the development feasibility equation

The discussion of feasibility focuses on stated feasibility thresholds: for residential development, backbone infrastructure costs ranging from 15-20 percent of the sale price of the

house, and, for non-residential development, backbone infrastructure costs ranging from 10 –15 percent of the sales price per square foot. No basis is given for these thresholds—although this appears to be the range that results from the subsequent analysis of current cost burdens in North Natomas, South Sutter, and locations elsewhere in the greater market area. These results simply indicate that, under market conditions at this point in time, this is the relationship between backbone infrastructure cost and sale prices for new development.

The feasibility threshold is a limited gauge of whether or not higher mitigation requirements would be feasible. As mentioned in the economic analysis, in response to significant increases in a development cost component such as that for backbone infrastructure, developers will try to increase sales prices to the extent the market will bear, and developers may also reduce their profit margins. (*Final Report*, March 2002, page 24.) These are short-run responses. In the longer run, there are a number of other factors in the development equation that are likely to adjust to accommodate changes in backbone infrastructure costs or some other development cost. In response to significant increases in development costs, developers would offer less for raw land, and willing landowners would eventually accept less per acre. Higher density development products might be tested. These adaptations are not discussed in the economic analysis.

An accepted methodology for testing the feasibility of development projects evaluates that very land value factor. In "land value residual analysis", all development costs except land are compared to expected revenues. The result is the "land value residual", expressed as a per-acre value. If that residual amount is below what the landowner paid for the land or what the market
O1-44 value of the land is in agricultural or an alternative use, development would be determined to be infeasible and not expected to move forward.

Strong and consistent trends in sales prices undercut the static cost-burden analysis

Residential sales prices have risen significantly in the Sacramento market area over the past five years. Data from 1996 though 2001 show an annual rate of increase approaching 11 percent per
O1-45 year and more current data for 2002 show an even higher increase. The longer term trend is also one of strong increases in residential sales values: between 1982 and 2001 the median sales price increased at an annual compound rate of six percent. Given these market trends, there is room in the feasibility equation for higher mitigation requirements and costs. Figure 1 illustrates trends in residential sales prices in the Sacramento market area. The effect of these higher sales prices on the cost-burden analysis is further illustrated in the following section.

O1-46 *Habitat mitigation requirements are not a significant component of backbone infrastructure costs*

Most importantly, the discussion of backbone infrastructure and feasibility does not directly address the main question of the implications for feasibility of this NBHCP. In fact, the extensive cost burden analysis obscures a relatively simple fact that undermines the conclusive statements presented in the summary findings. The NBHCP fee is only a very small component of the overall backbone infrastructure cost analyzed. Figure 2 and Figure 3 illustrate the contribution of the habitat mitigation fee to total backbone infrastructure costs for selected prototypes developed for the NBHCP economic analysis. For residential development, the

proposed and alternative fees represent three to six percent of the total cost burden. For non-residential development, the proposed and alternative fees range from two to 15 percent of the total cost burden; the highest percentages are for the higher mitigation alternatives in South Sutter (where the overall backbone infrastructure costs are substantially lower).

As presented in the economic analysis of the NBHCP, the habitat mitigation fees are responsible for less than one percentage point of the total cost burden for residential development. Considering a more current house price for North Natomas ($315,990 in the third quarter of 2002, according to the Gregory Group as quoted in the October 11, 2002 *Sacramento Bee*), the proposed fee and alternatives represent about one-half a percentage point of the total cost burden for backbone infrastructure. For non-residential development, the proposed fee and alternatives represent less than one percentage point of the total burden for retail development and range from one to two percentage points of the cost burden for warehouse / light industrial development, depending on the type and value of the space that would be developed.

The non-residential analysis of cost burdens indicates that the total burdens for North Natomas and South Sutter County are high relative to the stated feasibility threshold of 10 – 15 percent. The burdens are at similar levels in some cases in the comparative development areas, however. This does not support a finding that the NBHCP mitigation fee is the maximum extent practicable. It simply indicates that overall backbone infrastructure costs are relatively high for these newly developing areas, given current market conditions, the large amount of potential supply relative to demand, and resultant obtainable rents and sales prices. The substantially lower land values in the Sutter County parts of the basin are confirmation of this condition. A significant increase in the habitat mitigation component of the fee would not change these conclusions.

As noted in the economic analysis, the "increase in HCP mitigation fees per unit has little impact on the overall fee burden under all scenarios". (*Final Report*, March 2002, page 24.) This acknowledgement of the relatively small contribution made by the NBHCP fee to the overall cost undermines any conclusion that the proposed fee represents the maximum extent practicable fee. The fees associated with additional mitigation—Scenario 4 (1 to 1 mitigation ratio) and Scenario 5 (75 percent marsh)—make no difference in the cost burden and thus could be implemented without jeopardizing development feasibility.

In the May 2002 *Addendum*, the economic analysis notes that: "To date, the fee increases have not impacted the financial feasibility of the projects in the Natomas Basin because product sales prices of homes and non-residential development have also increased over time. As long as this trends continues, financial feasibility of development projects in the Natomas Basin will remain intact." (May 2002 *Addendum*, page 6.) Figure 4 illustrates how closely the land cost component of the NBHCP fees has tracked increases in the sales prices for new homes in Sacramento County.

O1-46

O1-47

The impact of higher mitigation on competitiveness is not substantiated

The *Addendum* also implies that increases in the NBHCP fee would make other locations in the market area more competitive if those products could be delivered more inexpensively. It is

unlikely that changes in such a small component of the overall backbone infrastructure would reduce the market competitiveness of the Natomas Basin product. As noted above, other elements of the development equation (such as developer profit, product type and density, and land price) could also adjust. Furthermore, open space preservation is not without benefits to nearby development, and these benefits have been shown to translate into higher property values in the long run. Also, while other jurisdictions in the greater market area may not have a habitat conservation plan and associated development impact fee, many development projects in the area are subject to mitigation requirements for impacts to habitat on a project-specific basis. Because there is no associated development impact fee, these development costs do not show up in the
O1-47 cost burden calculation that uses existing fees, taxes, and assessments. They are development costs nonetheless and affect the pace, pricing, and marketing of development.

Potential increases in other North Natomas fees are not material to conclusions about the proposed habitat mitigation fee

To bolster the feasibility findings, the economic analysis discusses the larger context of the North Natomas Financing Plan shortfalls and mentions that in the North Natomas Financing Plan, city planners and policy makers originally decided to look to other sources besides new development to fund some of the substantial costs of this "greenfield" development, in an attempt to maintain feasibility for new development. Now, however, the ability of the city's General Fund and other regional sources to provide funding is uncertain and limited, and
O1-48 significant increases in North Natomas development impact fees are anticipated. (*Final Report*, March 2002, pages 24-25.) Because of changed market conditions (substantial increases in home sales prices in the area), some increase in the cost burden to new development might be tolerated. The economic analysis also warns, however, that increases in the cost burden could approach the range of infeasibility.

This change related to the balance of the backbone infrastructure needed to develop North Natomas should have no bearing on the finding that the habitat fees considered alone are the maximum practicable fees. As demonstrated above, the habitat mitigation component is a very small part of the total cost burden, and that share is likely to be even smaller with significant increases in other fees and charges. There is nothing that says that the HCP fee should be the fee that—at the margin—bears the burden of the feasibility test.

O1-49 **The discussion of the implications of expected future land values is one-dimensional and ignores other conservation strategy options**

Will escalating land prices make higher mitigation infeasible?

After concluding that "the proposed increase in the NBHCP fee from 1999 levels is projected to have minimal impact on the cost burdens of new development" (*Final Report*, March 2002, page 34) and that "the increase in HCP mitigation fees per unit has little impact on the overall fee burden under all scenarios" (*Final Report*, March 2002, page 24), the economic analysis of the "maximum extent practicable" concludes with a discussion of potential increases in land costs. The report concludes that those trends in combination with the inevitable shrinking of the static supply of habitat land as development occurs will result in a significant increase in land prices

"potentially pushing the development projects out of the realm of feasibility". (*Final Report*, March 2002, page 36.)

Under the NBHCP as proposed, it is quite likely that land prices will continue to escalate, and that the land acquisition component of the fee will have to be increased. In addition to the fact that there is a static supply of potential reserve land, the conservation strategy essentially earmarks certain locations for subsequent acquisition. The NBHCP conservation strategy requires a 2,500-acre habitat block and minimum sizes of 400 acres for all other reserve lands, as well as connectivity between preserves. This is likely to endow those landowners in the vicinity of existing preserves with a substantial advantage in acquisition negotiations.

At the same time, the potential supply of preserve land is greater than the preserve lands required under the proposed 0.5 to 1 mitigation ratio. This introduces uncertainty in the land market and forces the Natomas Basin Conservancy (NBC) to face landowners whose floor selling price is influenced by the potential speculative value of that land for future urban development. Expectations of competing bids from potential developers in anticipation of future urbanization in an expanded City Sphere of Influence (as proposed under the recent Sacramento City-County Natomas Joint Vision), will only exacerbate the price pressures for potential preserve lands in currently unincorporated Sacramento County.

If, however, the only alternative to selling land for habitat preserves were clearly continued non-preserve agricultural use, floor prices for land sales would likely stabilize at or somewhat above the agricultural land value. This would be the case under a strategy that required a higher mitigation ratio, thereby reducing the residual amount of unprotected land that would otherwise be subject to speculative pressures. Unless there is potential for conversion to higher value crops such as orchards or vineyards, the underlying agricultural land values tend to be relatively stable over time.

Information provided in the Draft Environmental Impact Report prepared for the Natomas Basin HCP supports an assessment of stable underlying agricultural land values in the Natomas Basin. The majority (65 percent) of the farmland resources in the Natomas Basin are prime farmland and patterns of agricultural use have been stable in recent years. The primary crops are rice, sugar beets, safflower, wheat, barley, alfalfa, corn, pastureland, tomatoes, and fruit trees. (*Draft EIR/EIS Natomas Basin HCP*, August 2002, page 3-61.) The *Draft EIR/EIS* cites land sales prices for agricultural land in the Natomas Basin of $2,500 to $2,700 per acre in 2000. (*Draft EIR/EIS*, page 4-141.) In the absence of speculative land development pressures inflating the floor price that landowners are willing to accept, preserve land acquisition costs might be closer to these values, as they were in the initial years of the original NBHCP.

O1-49

O1-50

Alternative preserve acquisition strategies offset some of the concerns about land price escalation

As the land cost component of the fee increases, developers will have increased incentive to take advantage of the dedication provision. Unlike most of the other of backbone infrastructure costs, a significant component of the cost of the habitat mitigation fee can be satisfied through land dedication—substantially reducing the burden of the fee to new development.

Moreover, it is likely that land developers purchasing large tracts of land would be able to negotiate lower prices than would the NBC. The prices would be lower because the land developers as buyers have the advantages of substantial expertise in real estate transactions and access to market information. Moreover, the developer-buyer is in a more favorable position than is the NBC due to the timing of the land purchase—significantly in advance of development and of the imposition of the mitigation requirement, as opposed to after the fact. In fact, these conditions are evident in the "Brookfield Natomas" community proposed for the expanded Sacramento Sphere of Influence. In that case, the developer intends to dedicate for habitat mitigation significant parts of the land now controlled.

There is often a significant discount in the price per acre for large tracts of land. Hausrath Economics Group found this in analysis of land values Placer County for the Placer Legacy project; it appears to be the case for most transactions undertaken by the NBC. A preserve acquisition strategy focusing on large tracts should realize some economies in acquisition costs as well as in management and monitoring costs.

The proposed NBHCP fee builds in an allowance for transaction costs and contingency amounting to over 20 percent of the land acquisition cost. While it purportedly reflects the experience of the NBC, this appears to be a very conservative assumption. An acquisition O1-50 strategy that focused on larger tracts of land would likely enjoy lower transaction and contingency costs.

O1-51 *Alternative conservation strategies would reduce the contribution of both the land cost component and potentially other cost components*

In the most recent iteration of the financial analysis for determining a habitat mitigation fee, other cost components increased more significantly than did the land cost component. Figure 5 illustrates the trends in the cost components of the NBHCP over time. The proposed NBHCP conservation strategy appears ever-more costly. This suggests that alternative conservation strategies relying less on high and increasing operating, maintenance, and management costs and more on maximizing the land acquired for habitat would better satisfy the charge to maintain and increase habitat values in the Natomas Basin and would therefore have a more positive effect for covered species.

The proposed NBHCP gives only passing mention to the potential for a conservation easement strategy in conjunction with the fee title acquisition strategy. The economic analysis assumes all acquisition is fee-title. While this may be a conservative assumption, it overlooks potential economies and works to the disadvantage of a strategy involving a higher mitigation ratio.

Most other habitat conservation plans that are based on conserving suitable habitat lands in active agricultural use rely on such a strategy, in combination with a higher mitigation ratio such as 1 to 1. Conservation easements have become a widely used tool to gain a public interest in land—allowing on-going agricultural use and allowing the landowner to retain title to the property while receiving current value for development rights foregone.

In practice, easement market values are determined by an independent appraisal of the property, evaluating the value of the development rights foregone by the landowner as a result of the easement. Easement values also vary depending on the restrictions placed on the productive value of the land. Research into the typical values for conservation easement purchases reveals a wide range of values reflecting the individualized and negotiated character of such transactions. The experience of the California Department of Fish and Game's (CDFG) conservation easement program for Central Valley wetlands is that easement values range from 25 percent to 75 percent of fee title value. The Marin Agricultural Land Trust (MALT) cites agricultural easement prices ranging from 25 percent to 50 percent of unrestricted market value, averaging between 40 percent and 50 percent.

A conservation easement strategy would result in economies in other aspects of the habitat mitigation cost and therefore in the fee. Restoration and enhancement costs would be less if more of the habitat were retained in agricultural use and not owned by the NBC. The trade-offs would be less revenue-generating capacity from land owned in fee title and potentially higher monitoring costs, but the end result might be lower net costs overall. Given the escalation in management and operating costs and the endowment required to underwrite these costs in perpetuity, investigation of a less costly operations and management approach for the NBHCP appears warranted.

O1-51

O1-52

Does the plan ensure adequate funding?

Unlike many other habitat conservation plans, the NBHCP does not rely on significant sources of outside funding—i.e., state and federal grants, local public revenues, benefit assessments, major landowner dedications. The NBHCP is based on development and land conversion occurring, thereby triggering the habitat mitigation requirements. The funding base for the NBHCP is fees on new development, supplemented by revenues from leasing habitat preserves for rice and other crop farming and from allowing waterfowl hunting on some preserve lands. Interest income from up-front fees placed in an endowment also provides long-term funding. No broader base of general public funding is targeted to supplement these efforts.

There are at least three concerns with respect to ensuring adequate funding. First, the funding plan should be able to respond to changes in costs over time. This is true in the early years, as actual experience results in refinements to original cost estimates. It is also true in the later years, as the land cost component is likely to become a sensitive factor. Second, the funding plan should analyze revenues and expenditures and demonstrate, using conservative assumptions, that costs are covered with some cushion for contingencies. Third, the funding plan should provide for the ability to respond to unforeseen circumstances.

The economic analysis of the NBHCP demonstrates a fairly strong position on adequate funding, short of a public or private guarantee.

The revised NBCHP calls for, at a minimum, annual review of the mitigation fee. Each year, the fee is to be adjusted to account for the actual experience of the NBC in acquiring and restoring preserves, managing the preserve system, and otherwise conducting operations. A financial model has been developed and refined over the years and now appears to provide a relatively

flexible tool to estimate fee levels based on new assumptions and the actual experience of the NBC. Since the original interim fee was established in 1995, there have been five fee adjustments. Recently, significant increases in restoration cost assumptions and administration, operations, and management cost assumptions have driven the proposed fee increases.

The financial model developed for the NBHCP estimates cash flows over time based on assumptions about the pace of development and fee revenues, the pace of land acquisition and restoration, levels of operating costs and operating revenues, and interest income. In the model, a contingency factor is allowed to accumulate and contingency revenues do not offset expenditures. This is a conservative assumption; if contingency funds were assumed to offset expenditures, this would reduce corresponding fee estimates.

The operations and maintenance (O&M) endowment component of the fee provides for on-going financial support in perpetuity. After all fee revenue is collected, crop revenues and hunting revenues are not assumed to be adequate to fully fund the NBHCP in any given future year. Towards the end of the permit period, a portion of the interest earnings on the O&M Endowment Fund (not the principal amount) supplements operating revenue from crop leasing and hunting revenues. Review of the October 2002 financial model indicates that operating revenues are assumed to fund about one-third of total administration/O&M expenditures in year 50 and beyond, while the drawdown from the endowment fund supports the balance of O&M expenditures. In the latest iteration of the fee analysis, the O&M endowment component of the fee is based on providing a principle amount that generates enough interest to satisfy the required drawdown plus 20 percent. Because of changes in a number of assumptions over time, the O&M endowment fund component of the habitat mitigation fee has increased from $75 per acre in 1996/97 to $1,900 per acre in the October 2002 fee estimate based on the Draft NBHCP.

To provide further assurances and to provide the ability to respond to changed circumstances, beginning the 2001, the NBHCP funding plan included a provision for a Supplemental Endowment Fund. The purpose of the supplemental endowment, funded by a separate component of the habitat mitigation fee, is to enable the NBC to acquire land in advance of requirements or at higher land acquisition prices before fees can be adjusted. The supplemental endowment could also provide for the ability to buy the last preserve lands after all fees have been paid, when, given the limited supply options and potentially, the need to fill out preserves to satisfy the acquisition criteria, sellers are able to extract a premium price that is not covered by the available fees. The supplemental endowment component of the fee was first adopted in 2001 and, as of the October 2002 fee analysis, is now more than three times the amount originally adopted. To improve the commitment to ensure adequate funding, this component of the fee could be raised even further without jeopardizing development feasibility.

Alternatively, in conjunction with a plan to preserve proportionally more of the Natomas Basin as permanent habitat and open space through higher mitigation ratios, public funding could be committed to acquiring key preserve lands in advance of mitigation requirements. Spreading the costs of habitat conservation among a broader base of funding sources is often part of the political process of devising an acceptable plan. The general public benefit, as well as a broader public responsibility for past habitat conversion, justifies sharing the burden of current habitat

O1-52 conservation costs. Local, state, and federal sources are often committed to habitat conservation plans as a demonstration of that public interest and public benefit. Preserves targeted for public funding would have high habitat values and would most likely support public access.

Comments on absorption assumptions

O1-53 It appears that the absorption assumptions are different in the various versions of the cash flow analysis. This is important because these assumptions determine the pace of fee revenue, the duration of the "out years" when the plan would be dependent on operating revenues and interest income, and the level of endowment fee required to supplement those operating revenues. The March 2002 *Final Report* states that a 15-year development period is assumed. (*Final Report*, March 2002, page 45.) The detailed cash flow schedules for land acquisition and restoration and enhancements in the April 2002 report appear to follow this assumption, showing fee revenue only through year 21 (2016). In the October 2002 update, however, fee revenue continues through year 32 (2027), implying a substantially slower pace of development. None of the economic analysis documents provides the assumed absorption schedule.

Implications of the Sacramento City-County Joint Vision proposal

O1-54 Recent actions by local government in the Natomas Basin may have undermined key elements of the proposed NBHCP conservation strategy. Under the proposed NBHCP, 19,400 acres of agricultural lands and other undeveloped lands (canals, grassland, oak groves, ponds, riparian, ruderal, and tree groves) in currently unincorporated Sacramento County account for 70 percent of the potential preserve lands to mitigate for the effects of urban development. (From Table 4.1, *Draft Natomas Basin Habitat Conservation Plan*, Appendix H: "Natomas Basin Habitat Conservation Plan Impacts to Proposed Covered Species", prepared by CH2MHill, July 1, 2002.) The balance of the potential preserve land is in Sutter County and much of that land, while currently zoned for agricultural use, is also designated in the Sutter County General Plan as long-term Industrial-Commercial Reserve.

The proposed Sacramento City-County Natomas Joint Vision would allow 10,000 acres of urban development to occur on the 19,400 acres of agricultural lands and other undeveloped lands identified in unincorporated Sacramento County in 2001. At the same time, the proposed Joint Vision establishes a program for open space preservation within the currently unincorporated area that, to satisfy a proposed 1 to 1 ratio of permanent open space to urban development, would claim virtually all of the remaining agricultural and other undeveloped land in the currently unincorporated Sacramento County parts of the Natomas Basin. This balance between new development and open space/habitat under the proposed Joint Vision effectively removes much of the undeveloped portions of unincorporated Sacramento County from the potential supply of preserve land for the NBHCP. The expectations engendered by this local government proposal will inflate land values for preserves in unincorporated Sacramento County, particularly those areas in the proposed expanded sphere of influence.

A likely consequence of implementation of the Joint Vision as proposed would be that proportionally more of the NBHCP acquisitions would occur in Sutter County or out-of-basin. The land values are substantially lower in those areas because there is more land available and

less development pressure. With lower land costs for habitat land, higher mitigation ratios could be supported.

It must be noted, however, that both the prior and the proposed NBHCP require that 80 percent of habitat acquisitions occur within the Natomas Basin, in order to satisfy the goals of protecting and enhancing populations of threatened species found in the Natomas Basin. Up to 20 percent of preserve acquisitions could occur in the designated out-of-Basin Area "B", only if the United States Fish and Wildlife Service and the California Department of Fish and Game find that reserves of adequate size, viability, and habitat value can be established in the area and can support the populations of threatened and other covered species. These lands are not known currently to support the range of species that make their home in the Natomas Basin. To date, no out-of-basin mitigation acquisitions have been permitted.

O1-54

Figure 1
Trends in New Home Prices in the Greater Sacramento Market Area

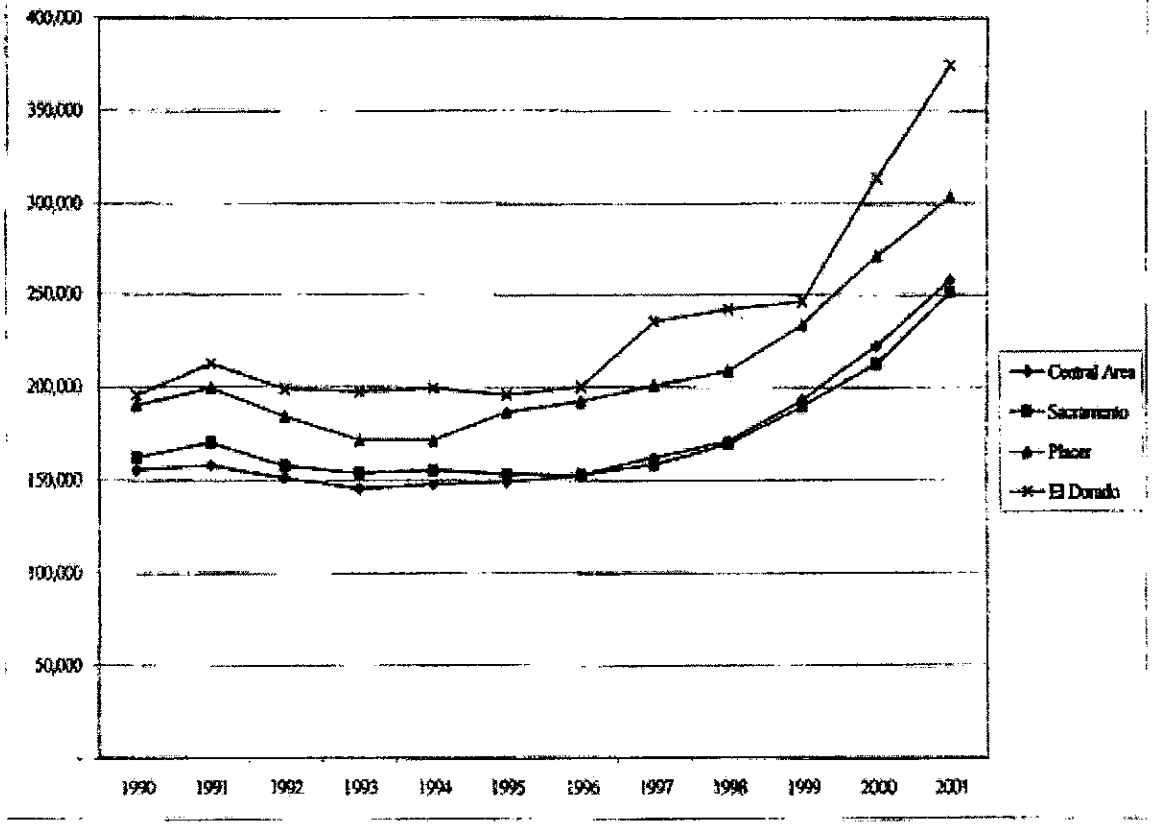


Figure 2
Habitat Mitigation Contribution to Backbone Infrastructure Cost Burden
(North Natomas Average--1,800 sf house)

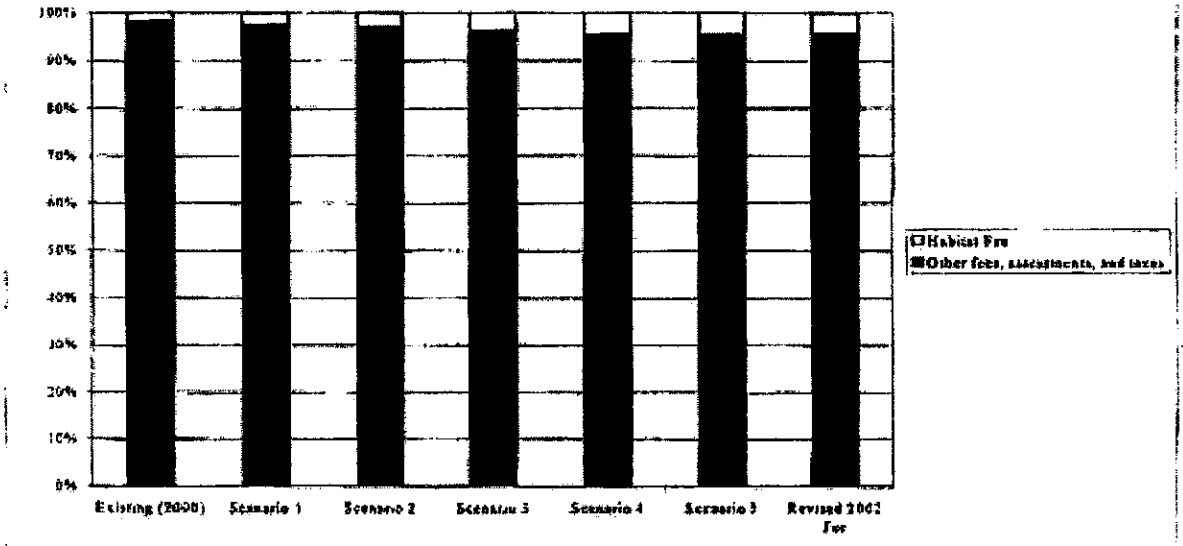


Figure 3
Habitat Mitigation Contribution to Backbone Infrastructure Cost Burden
(North Natomas average--retail)

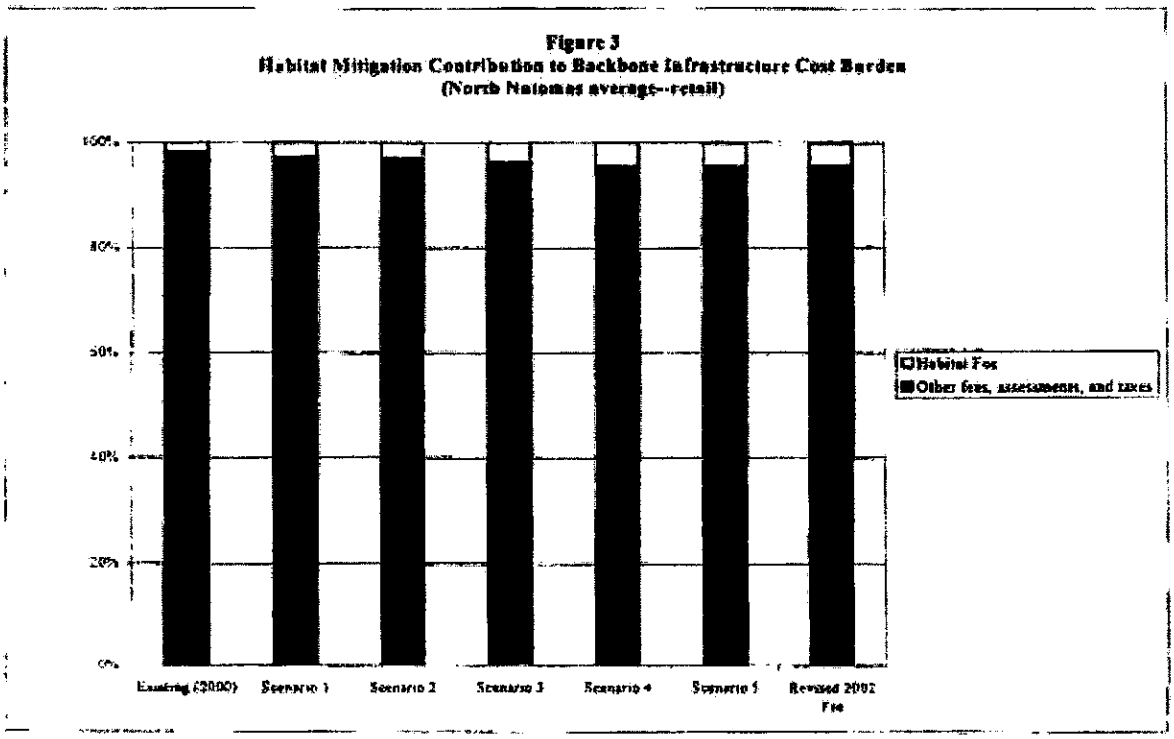


Figure 4
Trends in Land Costs and Home Prices: 1997 - 2002

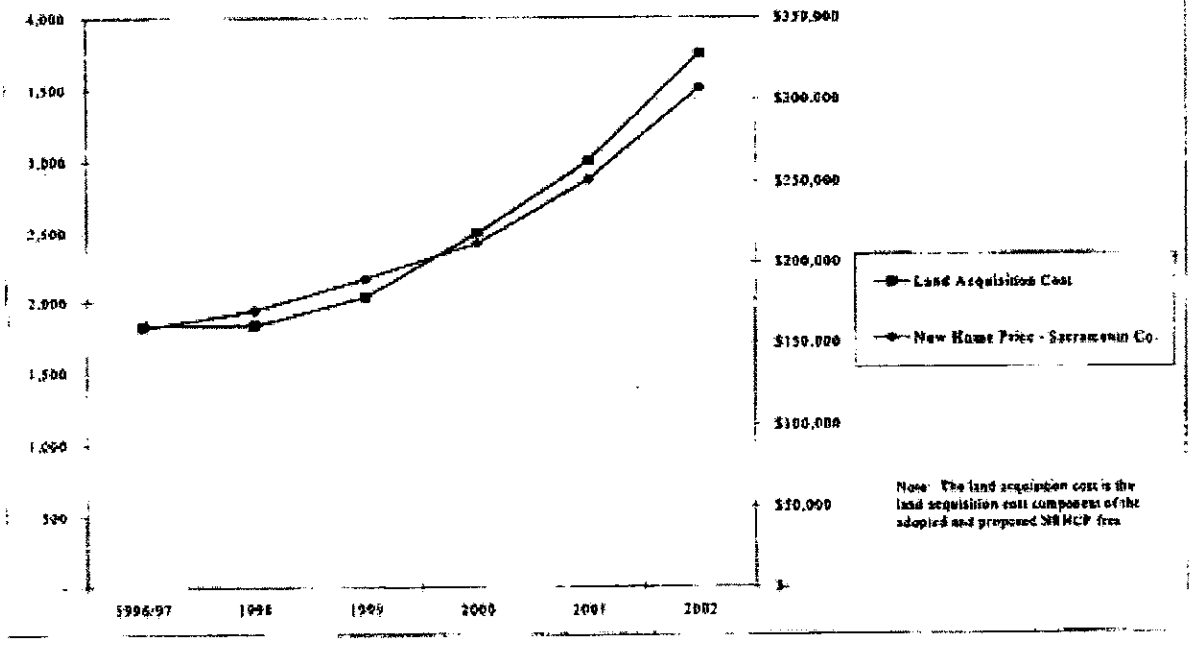
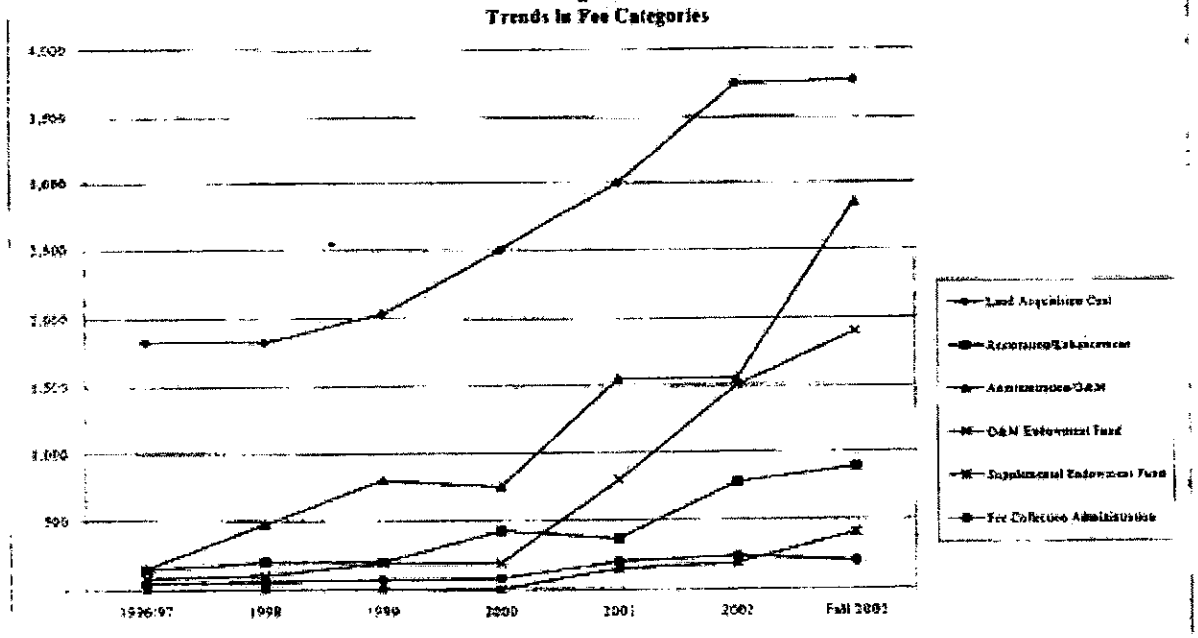


Figure 5
Trends in Fee Categories



Center for Natural Lands Management

A non-profit organization for the protection & management of natural resources

December 1, 2002

James Pachl
Attorney
817 14th Street
Sacramento, CA 95814

Dear Mr. Pachl:

We understand that you are representing Friends of the Swainson's Hawk and the Sierra Club Mother Lode in their discussions of the Natomas Basin Habitat Conservation Plan ("NBHCP"). The Center conducted a study of the mitigation fee elements in 1997 that reviewed land costs, agriculture and hunting revenues, restoration costs and an endowment for long-term stewardship.

For your reference, the Center for Natural Lands Management is a 501(c)3 nonprofit organization whose mission is the stewardship of endangered species lands and wetlands. The Center organized in 1990 and presently manages 43 preserves and over 50,000 acres as landowner, holder of conservation easements, and under contract with government agencies. My experience with the Center is as administrative director and director of special projects including land acquisition and the Property Analysis Record software which prepares stewardship plans and budgets. My education and previous work was in regional economics as a developer and consultant.

At your request, I am providing a review of the current fee documentation as compared to the goal of achieving "Adequacy of Funding" to the "Maximum Extent Practicable" as defined by the court in its review of the NBHCP Current fee documentation includes Appendix A, Final Report, *Economic Analysis of the Natomas Basin Habitat Conservation Plan*, March 23, 2002 and the *Revised Fee Estimate* based on Draft NBHCP, October 11, 2002. The components of the fee reviewed here include land, restoration and stewardship.

Fee: Land Component

The land acquisition component of the fee is set at $3,000 for the ½ to one acre mitigation requirement or $6,000 per acre of land. The only prices reflected in the analysis are for purchases by the Natomas Basin Conservancy. Of these nine parcels, all but three small parcels had been purchased in the Sutter County portion of the Basin and averaged less than $6,000 per acre. O1-55

It is apparent that the proposed fee is questionable after examining more recent

Sherry Teresa
Executive Director
425 E. Alvarado Street, Ste. H
Fallbrook, CA 92028-2980
760/ 731-7720
FAX 760/ 731-7791
email: sierrasl@cnlm.org

purchases which range from $7,500 to $11,000 per acre. The report cites the reason for excluding more recent high prices (Final Report, March 2002) is a "spike" due to the "requirement that the City purchase habitat lands in specified areas within the Basin". It is common, however, for land owners to understand the desirability of their properties and land buyers to seek lands with particular characteristics relating to transportation, neighboring uses and so on. Rather than a spike, it is likely that prices throughout the Sacramento portion of the Basin are increasing in reaction to both development potential and Conservancy guidelines. Neither the Conservancy nor any other land buyer can be expected to select less than desirable property in order to lower land prices.

As an indication that the Conservancy's guidelines have not affected prices is the recognition that these most recent purchases have been made by developers (and donated to the Conservancy) rather than the Conservancy itself. The Conservancy's guidelines, therefore, had no more impact on property prices than development pressures overall.

Since the Joint Vision announcement, many landowners are convinced that development is expected to occur throughout much of the Basin. Since conservation covers only a minor portion of the basin under the present NBHCP, it seems apparent that land prices for development will set the pace. As such the fee component for the NBHCP should be based at minimum upon the actual land sales for the Conservancy and preferably upon land sales in general.

By setting the land component of the fee according to comparable sales in the area, the Conservancy can compete for the parcels that best serve the creation of a meaningful preserve for the specified species. Inevitably over time, the purchases for conservation must concentrate on specific parcels to fill out a preserved area or to provide connectivity. This phenomenon is true of all purchase programs whether for conservation or for private development and regardless of whether the Conservancy or the development community is actually doing the buying. The land component must be sufficient to cope with this eventuality.

In addition, by setting the price at this level, the development community will have an incentive to mitigate by purchasing lands and donating them to the Conservancy. Their greater secrecy, size, and contacts may help them save a portion of the fee. In this case, the landowner has the benefit of a broader set of potential purchasers which better assures a market-driven land price.

Conclusion: To achieve adequacy of funding, the land component should be set at the average of conservation prices AND development prices for the entire area outside the currently permitted development zone. 01-55

Fee: Restoration Component

01-56 The restoration component in the original NBHCP in 1997 was $279 per acre. The Center's report at the time estimated a cost of $7,694 per acre based on the cost of other wetland projects and understanding the difficulties of erosion, plant maintenance, and invasive-exotic plants. Since that time, the cost of restoration fee has already increased to $5,200 based upon the experience of

the Conservancy to date in restoring an actual property. However, none of the restoration projects is complete in terms of plant maintenance. It must be expected that a complete restoration project will cost in excess of the Conservancy's costs to date.

O1-56 Conclusion: To achieve adequacy of funding, the restoration component should be based on historic costs and estimated costs to complete restoration of a site.

Fee: Stewardship Component

O1-57 The cost of stewardship in the original NBHCP in 1997 was $116 an acre. The present prediction is $756,585 in administrative costs per year plus approximately $124 per acre in field costs per year based on an estimate of acres under management from cash flow. (See Table 2 which was created because no assumptions for absorption have been provided in the *Economic Analysis*). Field costs are said to be predicated upon the Wildlands report (*Site Specific Management Plans for the Natomas Basin Conservancy's Mitigation Lands*, 2000) which works out to $119 per acre plus administration. The management costs in the Management Plan estimated by Wildlands uses as a sample a specific group of parcels totaling 1,296 acres described in the table below.

The difficulty here is understanding the how the $756, 585 per year in administrative time and costs will be spent. Understanding their allocation is relevant since administration is such a large component of management costs–averaging 40% of total management costs over the first 25 to 30 years of operation. Administration as a percent of total management is typically significantly less ranging between 20% and 30%. The higher proportion of administration costs in the *Economic Analysis* may indicate a underestimate of field costs as compared to administrative costs to the detriment of the properties and species.

In fact, the field costs envisioned by Wildlands do exclude several distinct tasks necessary to management. If these items are not included in the administrative costs, the stewardship component would require a significant adjustment. However, the *Economic Analysis* does not address whether these necessary tasks are covered in the budget for administration.

Wildlands Sample Project for Stewardship Estimates

Type	Acres	Proportion
Total	1,296	100%
Restored Marsh	324	25%
Rice Production	648	50%
Upland	324	25%
Managed	475	37%
Unmanaged	821	63%

As shown in the table above, Wildlands envisions no management for the rice lands and much of

the uplands. In fact, just 475 of the 1,296 acres are considered managed of which 325 are wetlands and 150 are uplands. Since there are obviously tasks for the remaining lands, it must be presumed that they are either neglected or that they are conducted by administrative personnel but are not reflected in the NBHCP. Examples of such tasks include the following.

Outreach-As development occurs and as acquisitions take place in Sacramento County, there will be increasing numbers of homes and businesses in the vicinity of the preserved lands. The potential and likelihood for use by neighboring residents will not be controlled by the minimum amount of fencing including in the projected management numbers. Outreach includes involving the community in the management of the preserve through meetings, talks, and materials in order to help protect it.

Visitation-The Plan calls for docents to be trained and to conduct any visitation allowed on the conserved lands at no cost to the program. Most docent training programs involve one and one-half to two persons dedicated to training and management of docents and visitation. Docents are not free.

Hunting-The Plan calls for income from hunting but no costs. In actuality, it is likely that a contractor or staff will be involved in issuing permits, collecting fees, constructing and monitoring the condition of blinds, making and installing signs, and patrolling for compliance with hunting rules, and correcting noncompliant activities. No deduction from anticipated hunting fees is made to account for these tasks if conducted by a contractor.

Rice Farming-The Plan calls for revenue from rice land leasing but includes only a single task encompassing 16 hours per site for field employees covering coordination with the farmer. However, the rice farming program requires far more work including preparing and negotiating lease agreements, collecting rents, patrolling for compliance and potentially enforcing compliance on the occasionally recalcitrant lessee.

Management Plans-Except for the Plan prepared by Wildlands no additional management Plans for additional parcels or updates of management plans are contemplated.

Pest Management-The Plan calls for control of beaver and muskrat, but since the preserves will increasingly be near development, and since giant garter snake is a concern, control of cats will be a necessity.

Water Testing-No item is shown in the Plan for water testing.

Conclusion: To achieve adequacy of funding, it should be determined that the administrative budget is expected to cover these otherwise unfunded tasks or that the stewardship budget should be adjusted.

O1-57

Salaries

The level of salaries for field employees may be adequate for untrained personnel but is low for trained personnel experienced with the properties and their history. Salaries including benefits for long-term employees are likely to increase faster than inflation as they gain experience. The cash flow excludes inflation which is appropriate but also excludes any merit gains in salaries.

O1-58

Conclusion: Staff compensation above inflation should be shown on cash flows.

Economies of Scale

The most effective preserves in terms of their ability to protect species are larger preserves with a high ratio of interior area to the length of edge. For example, a 100 acre preserve could have a minimum ratio of 521 and a 1000 acre preserve would have a minimum ratio of 1650 or over three times the amount of interior area to edge as the smaller preserve. The literature cites the "edge effect" of such things as roads, development, invasive-exotic species, pesticides and pets on species within a preserve. To the extent the edge is reduced, the condition of species populations is improved.

The edge effect is very apparent in the management of the Center's preserves resulting in small preserves costing more per acre to manage and defend than larger preserves. In addition, the Center conducted a study of management costs at existing preserves in 1994 funded by the Environmental Protection Agency that clearly demonstrated the economies of scale of larger preserves. The level of impacts from the edge is directly correlated to management tasks and, therefore, costs. As an indication of the value of economic information on preserve management, EPA has recently funded an updated study of management costs for projects in California, Oregon and Washington.

O1-59

Understanding the benefits of economies of scale to both species populations and management costs, the primary goal of the NBHCP to establish a system of preserve that will support viable populations of certain species conflicts with the expectation reflected in the *Economic Analysis* that lands should not be designated for purchase in order to restrain land prices. To develop significant and connected preserves, parcels adjacent to existing preserved lands will inevitably be identified as potential acquisitions. To deny the Conservancy this ability is to prevent the establishment of an effective and efficient preserve system.

The benefits of scale also reflect on the NBHCP ratio of ½ acre preserved to 1 acre developed. As acquisitions to date have resulted in spatially disconnected preserve areas, significant new acquisitions will have to occur to develop a system of preserves that will actually protect the species. Whether an effective and efficient preserve system with viable populations of each species can be accomplished under the current ratio without extraordinary management efforts to crowd and manipulate individuals is highly questionable.

Conclusion: Preserve lands should be planned to provide an effective preserve system and efficient management program.

Maximum Extent Practicable

O1-60 The requirement under the court order is to establish "adequate funding" to the "maximum extent practicable". The *Economic Analysis* purports to define the maximum extent practicable by comparing the resulting habitat fees of the Natomas area with those in other locations. While the report notes that "no two habitat conservation plans are alike", it is instructive to understand where the differences occur.

The biggest difference between these plans is in the values of the land involved. Most of the HCP's listed are not planning to mitigate in areas under speculative pressures to develop. Many are not even adjacent to land considered developable. For instance, the Metropolitan Bakersfield HCP is purchasing land in the western Kern County where prices range between $300 to $500 per acre and is miles from any utilities. Similarly,. the Coalinga program is concerned with kit fox habitat in the valley and coastal hills where land is very inexpensive and development pressures even for agricultural uses are minimal.

Neither the Bakersfield or Coaling projects contain wetlands or require restoration of wetlands. Restoration of grasslands may be needed in a very limited way. Even vernal pool programs such as South Sacramento are more interested in protecting existing wetlands rather than restoration of wetlands which reduces the cost of that component in their fee structure.

The only program that is comparable to the NBHCP is San Joaquin County where both development pressures and wetlands are involved. The fee here is over $9,000 per acre for vernal pool grassland which indicates that such levels are appropriate in the fast growing Central Valley cities.

Conclusion: Fees for programs that are not comparable to the subject are not an indication of the "Maximum Extent Practicable" while fees such as that for San Joaquin County do indicate that a higher fee is, indeed, practicable.

Second, the *Economic Analysis* compares total fee structures in communities to that in Natomas. It should be recognized that the development industry, while not ignoring fee structures, are far more interested in the total cost of the lot which includes land, lot improvement costs, infrastructure and fees. Non-habitat district fees are a particularly inappropriate comparison since they often pay for lot improvement costs and are therefore interchangeable with other costs. One community or project may use more district fees to pay these costs than another but the total lot improvement cost may be identical.

Since land and the rest of lot improvement costs usually move inversely with each other, it is of little import to know either one or the other without knowing both. Therefore, the comparison of fee structures by themselves is of little value in determining the maximum cost practicable to the development industry. Within the wide range of choices for land and lot improvements, builders have a far greater ability to manipulate components to create a marketable product than is apparent from the *Economic Analysis*.

Further the impact on house value is very small. The total of land and land improvements is often considered appropriate if it ranges between 25 and 30% of the total house price. If the price of housing is therefore, $315,000 on average and the density averages five units per acre, the total lot cost can be $78,750 to $94,500. The NBHCP part of the lot cost is 1.5% for Scenario 1 ($5,993 divided by 5 or $1,198) and 2.2% for Scenario 5 ($10,582 divided by 5 or $2,116). In comparison, builders look for profit margins of about 12% to15% of the price of the home or

about $38,000 to $47,000 per house.

O1-60 Conclusion: The very small component of house price represented by the NBHCP fee should not be limited to a figure that does not serve the purpose of the NBHCP overall.

Thank you for this opportunity to review the fee proposal for the Natomas Basin Habitat Conservation Plans. I will be happy to answer any questions you might have.

Sincerely.

Brenda Pace
Special Projects

Table 2
Estimate of Acres Funded and Acres Purchased
Based on EPS Revised Fee Estimate Table 10

Year	Fee/Price & Transaction	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Land Revenue		55,941	191,986	2,526,057	2,696,904	1,287,471	3,196,070	3,941,346	4,462,910	4,675,471	4,699,365	4,710,522	
Acres	$3,750	15	51	674	719	343	853	1,051	1,190	1,247	1,253	1,256	
Cumulative Acres		15	66	740	1,459	1,802	2,655	3,706	4,896	6,143	7,396	8,652	
Purchase Land					4,924,898	16,476,666	1,535,906	9,510,158	1,569,213	3,957,054	3,966,422	3,966,422	
Acres	$7,550				652	2,182	203	1,260	208	524	525	525	
Cumulative Acres					652	2,836	3,038	4,298	4,506	5,030	5,556	6,080	
Restoration Cost							1,060,422	345,161	1,686,073	685,458	1,161,806	850,446	
Acres at 25%							760	1,074	1,126	1,257	1,389	1,520	
Cost/Acre							1,396	321	1,496	545	837	626	
Total Management and Admin Cost				106,930	326,904	541,084	611,155	1,287,799	1,333,577	1,410,131	1,484,040	1,580,943	
Administration Cost								756,585	756,585	756,585	756,585	756,585	
Management Cost				106,930	326,904	541,084	611,155	531,214	576,992	653,546	727,455	824,358	
Management Cost/Acre					501	191	201	124	128	130	131	136	
Total Cost/Acre								300	296	280	267	260	

Year		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Land Revenue		4,721,884	2,031,014	1,996,436	2,001,869	2,007,383	2,012,981	1,252,809	1,245,515	1,249,600	1,253,746	1,127,517
Acres	$3,750	1,259	542	532	534	535	537	334	332	333	334	301
Cumulative Acres		8,652	8,652	8,652	8,652	8,652	8,652	8,652	8,652	8,652	8,652	8,652
Purchase Land		3,966,422	1,634,233	1,634,233	1,634,233	1,634,233	1,634,233	973,199	973,199	973,199	973,199	973,199
Acres	$7,550	525	216	216	216	216	216	129	129	129	129	129
Cumulative Acres		6,080	6,080	6,080	6,080	6,080	6,080	6,080	6,080	6,080	6,080	6,080
Restoration Cost		859,902	859,902	394,657	394,657	394,657	237,125	237,125	237,125	237,125	237,125	237,125
Acres at 25%		1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520
Cost/Acre		566	566	260	260	260	156	156	156	156	156	156
Total Management and Admin Cost		1,665,814	1,723,582	1,780,522	1,814,042	1,855,395	1,896,981	1,931,604	1,966,472	2,001,385	2,030,362	2,059,607
Administration Cost		756,585	756,585	756,585	756,585	756,585	756,585	756,585	756,585	756,585	756,585	756,585
Management Cost		909,229	966,997	1,023,937	1,057,457	1,098,810	1,140,396	1,175,019	1,209,887	1,244,800	1,273,777	1,303,022
Management Cost/Acre		150	159	168	174	181	188	193	199	205	209	214
Total Cost/Acre		274	283	293	298	305	312	318	323	329	334	339

Year		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Land Revenue		1,127,517	1,127,517	1,127,517	1,127,517	1,127,517	1,127,517	1,127,517	1,127,517	1,127,517	1,127,517	0	64,621,447
Acres	$3,750	301	301	301	301	301	301	301	301	301	301	0	17,232
Cumulative Acres		8,652	8,652	8,652	8,652	8,652	8,652	8,652	8,652	8,652	8,652	0	219,226
Purchase Land		973,199	973,199	973,199	973,199	973,199	973,199	973,199	973,199	643,391		0	71,339,400
Acres	$7,550	129	129	129	129	129	129	129	129	85		0	9,449
Cumulative Acres		6,080	6,080	6,080	6,080	6,080	6,080	6,080	6,080	6,080	6,080	6,080	
Restoration Cost		237,125	237,125	237,125	237,125	237,125	237,125	237,125	237,125	224,321	199,342	139,649	12,659,102
Acres at 25%		1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	1,520	
Cost/Acre		156	156	156	156	156	156	156	156	148	131	88	5,363
Total Management and Admin Cost		2,089,128	2,118,934	2,149,033	2,179,435	2,210,147	2,241,180	2,272,543	2,304,246	2,332,706	2,354,519	2,360,753	54,020,953
Administration Cost		756,585	756,585	756,585	756,585	756,585	756,585	756,585	756,585	756,585	756,585	756,585	20,427,795
Management Cost		1,332,543	1,362,349	1,392,448	1,422,850	1,453,562	1,484,595	1,515,958	1,547,661	1,576,121	1,597,934	1,604,168	33,593,158
Management Cost/Acre		219	224	229	234	239	244	249	255	259	263	264	
Total Cost/Acre		344	348	353	358	363	369	374	379	384	387	388	

Table 1
Land Price by County and Date
Acquisition for Natomas Basin HCP

Sacramento County			Sutter County		
Acres	Date	Price Per Acre	Acres	Date	Price Per Acre
159.20	1999	3,005			
138.99	1999	3,246			
40.29	1999	3,474			
			226.68	1999	3,600
			132.49	1999	3,600
			267.99	1999	4,000
			331.21	1999	4,000
			241.38	2000	4,500
			92.6	2000	4,200
Not Reported As of Revised Fee Estimate Oct. 2002					
44.68	2001	10,000			
96.46	2002	11,000			
311.50	2002	11,000			
575.56	2002	7,500			
50	Pending	8,250			
66.83	Pending	8,250			

Friends of the Swainson's Hawk
817-14th Street, 100 Sacramento California 95814
(916) 447-4956 (916) 447-8689 fax
www.swainsonshawk.org

December 5, 2002

Field Supervisor
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

Re: Comments on Draft Natomas Basin Habitat Conservation Plan, dated July 25, 2002 and Associated Draft Environmental Impact Statement/Environmental Impact Report

Dear Sir or Madam:

O2-1 Friends of the Swainson's Hawk submits these comments in addition to co-signing the comment letter from five environmental groups. The purpose of this letter is to provide more detailed comment on points made in the joint letter. We urge US Fish and Wildlife and California Department of Fish and Game not to approve the Natomas Basin Habitat Conservation Plan and Authorized Development as submitted.

O2-2 **1. Conflicts between NBHCP and EIR/EIS with "Staff Report Regarding Mitigation for Swainson's Hawk (*buteo swainsoni*) in the Central Valley of California," dated November 1, 1994, demonstrates NBHCP does not meet the criteria set by CDFG.**
CDFG criteria in the Staff Report include:

- Project review requires consideration of nest sites within a ten mile radius. (p. 1)

- Project review requires consideration of habitats including alfalfa, fallow fields, beet, tomato and other low-growing row or field crops; dry-land and irrigated pasture, rice land when not flooded and cereal grain crops (including corn after harvest). (p. 2)

- "The prey base (availability and abundance) for the species is highly variable from year to year, with major prey population (small mammals and insects) fluctuations occurring based on rainfall patterns, natural cycles, and agricultural cropping and harvesting patterns. Based on these variables, significant acreages of potential foraging habitat (primarily agricultural lands) should be preserved per nesting pair (or aggregation of nesting pairs)

to avoid jeopardizing existing populations. Preserved foraging areas should be adequate to allow additional Swainson's Hawk nesting pairs to successfully breed and use the foraging habitat during good prey production years." (p. 6)

• "Prey abundance and availability is determined by land and farming patterns including crop types, agricultural practices and harvesting regimes. Estep (1989) found that 73.4 % of observed prey captures were in fields being harvested disced, mowed or irrigated. (The staff report also includes the foraging habitats listed above from Estep 1989.)

• To mitigate for the loss of foraging habitat (pp. 11-12), projects within 1 mile of an active nest tree provide either a 1:1 ratio (where only 10 percent of the lands are actively managed for the SWH or a .5:1 ratio where all the mitigation lands are actively managed). Projects within 5 miles but greater than one mile provide .75:1 ratio of mitigation lands under fee title or conservation easement. Projects within 10 miles but greater than 5 miles provide .5:1 ratio with lands protected through fee title or conservation easement. Projects must also provide fees for long-term management. (p. 12)

There is significant conflict between the Staff Report and other reports and comments by Swainson's Hawk biologists on the one hand, and the rationale provided in the NBHCP and the EIR/EIS on the other hand. The NBHCP and EIR/EIS explanations for the Swainson's hawk mitigation program and its value for avoiding reduction of loss
02-2 and recovery, minimizing take, maximizing mitigation and reducing significant impacts to less than significant lack credibility and scientific backing.

These conflicts include:

02-3 a. The NBHCP and EIR/EIS do not assess the species impact and mitigation programs in light of the Staff Report quoted above, the only existing guideline for assessing mitigation programs for the Swainson's Hawk.

02-4 b. The NBHCP and the EIR/EIS do not look at all nesting sites within 10 miles of the Natomas Basin in order to assess impacts on all affected Swainson's hawk nesting pairs.

c. While the guidelines consider all agricultural lands used for forage by Swainson's Hawk and do not devalue some in relation to others, the NBHCP and EIR/EIS consider
02-5 non-rice (row or field crops) as lower quality foraging habitat than alfalfa, pasture and native grasslands. Neither the staff report nor the Estep (1989) study cited support this conclusion.

02-6 d. No consideration is given in the NBHCP or EIR/EIS to the number of foraging acres needed per nesting site to maintain the existing nest sites. With 43 breeding pairs, and assuming that of the 9,000 acres in the Swainson's Hawk zone, 2,187 acres are managed for high quality forage, the per active nest yield is 51 acres. What evidence exists to

support the conclusion that 51 acres is ample? Does availability of 27.5 acres of marsh edge, distant from nests in unknown locations at some time in the future add appreciably to the per nest forage available? To what extent is the mitigation program dependent upon the voluntary actions of private farmers in the Swainson's Hawk zone, and the County of Sacramento's 4,000 acres of airport buffer lands, to provide the necessary

O2-6 forage to sustain the Swainson's Hawk population? Note that independent biologists in 1992 estimated the habitat need per nest at 2500 acres (see attached).

e. The NBHCP and EIR/EIS identify 62 nesting sites in the Basin. However, only 24 were successful nests in 2001. (Estep found the comparable numbers in 2002 were 70 and 24.) On page III-18 , T. Roscoe, CDFG personal communication, is quoted as saying that one in three nest sites are successfully utilized each year. These documents do not identify comparable nesting habitat data for areas adjacent to the Basin.

O2-7 The NBHCP and EIR/EIS conclude that: "Foraging habitat is probably not currently limiting because of the large amount of agricultural fields available in the the Natomas Basin and surrounding areas and the ability for Swainson's Hawk to forage over larger distances." This conclusion ignores the fact that there are other nesting populations in the areas adjacent to the Basin that are appropriate for foraging and that other nesting populations may also be using the foraging lands in the Basin. It ignores the fact that other raptors are also using these lands for forage. It also does not address the fact that if only one out of three nesting sites is successful, the nesting habitat is not the limiting factor on the population.

O2-8 f. The NBHCP and EIR/EIS document the types of habitat lands in the Basin and describe the amount and type of lands to be acquired for mitigation under the one-half to one mitigation ratio intended to offset all species impacts from development in the Basin. The mitigation for Swainson's Hawk is acquisition and management of upland habitats.

The mitigation ratio for SWH in the NBHCP is well below the recommended mitigation ratio in the Staff Report. The proposed plan requires that within the next 50 years, 2,187.5 acres of upland will be acquired by the Natomas Basin Conservancy for all permittees, City, Sutter and Metro Air Park. This represents 25 percent of all land acquired for mitigation (8,750 acres). These 2,187.5 acres are to be largely (but not exclusively) managed for Swainson's Hawk foraging. In addition, the HCP claims that 1,184 acres of marshland edges will also be managed for Swainson's Hawk foraging (VII-15).

In contrast, the NBHCP and EIR/EIS identify the loss of Swainson's Hawk habitat lands at 8,785 for the authorized development in City of Sacramento and Sutter County (i.e. not including Metro AirPark) (IV-14-15). Of these, 3,844 acres are identified as within one mile of a Swainson's Hawk nesting site (in or along the Sacramento River adjacent to the Basin). [Fallow rice lands and rice land and marsh edges were not included in the estimate of lost lands.]

Therefore the mitigation ratio for the NBHCP for Swainson's Hawk is .25 to 1. Under the CDFG staff report on mitigation, the acquisition of habitat lands to mitigate for impacts on the Swainson's Hawk would have been four to five times as much. Total upland mitigation land acreage likely would have been closer to 8,000 to 11,000 acres if the Staff Report recommendations were followed.

Independent biologists who have assessed the needs for maintaining Swainson's Hawk population in the Basin have identified the habitat preserve land requirement at 10,000-11,000 acres of land managed in uses compatible with Swainson's Hawk foraging needs. (EIP Associates, ***SAFCA Swainson's Hawk and Giant Garter Snake Draft Habitat Conservation Plan***, 1992). This estimate was made prior to current information about the level of nesting in the Basin.

O2-8

g. The Staff Report does not address the issue of acquiring habitat lands in areas distant from the affected nesting pairs. The 1997 Natomas Basin HCP required all upland habitat to be acquired in the Basin. However the NBHCP contains no such acquisition requirement. Since up to 20 percent of total required habitat acquisitions can be out of basin in the 2002 NBHCP, up to 1,750 acres may be purchased outside the basin. If all the land purchased outside the basin is upland, this will leave only 437.5 acres of Swainson's Hawk habitat preserved in the basin. The NBHCP and EIR/EIS fail to explain how 437.5 acres of foraging habitat in the Basin can fully mitigate the loss of 8,785 acres of foraging habitat in the Basin. Alternatively, the NBHCP and EIR/EIS could explain why they have not required all upland habitat to be located within one mile of a known nest site for Swainson's Hawk in the Natomas Basin.

O2-9

O2-10

2. Impacts of Timing of Mitigation on the Swainson's Hawk Were Not Considered in NBHCP and EIR/EIS.

Most of the impacts on Swainson's Hawk come as a result of City of Sacramento development; 75 percent of the foraging habitat loss (6,925 acres) is in the City of Sacramento and 89 percent of the prime foraging habitat lost is in the City (3,679 acres). The preponderance of nest sites in the Basin are south of Elkhorn Blvd. (31), and most are in close proximity of the foraging habitat that is now or very soon will be lost.

Very few nest sites are close to the Sutter County portion of the basin. The NBHCP at VII-16 states that "Given the relatively low value foraging habitat and the minimal number of existing nesting trees, the Sutter County portion of Natomas Basin is neither critical or unique Swainson's hawk habitat and is not critical to the species survival or recovery." It states at VII-14 that in the City's Permit Area, loss of habitat could potentially adversely affect the continued existence of the species in the Basin, "absent the avoidance, minimization and mitigation measures of the NBCHP."

Neither the NBHCP nor the EIR/EIS assess the impact on the Swainson's Hawk population of the timing of mitigation. No link is made in the NBHCP to ensure that the forag-

ing habitat mitigation measures for the Swainson's Hawk are implemented to precede or be contemporaneous with the loss of foraging lands. In fact, the City under a prior, failed, HCP, has already developed half of its permitted area. It has paved over much of the Swainson's Hawk habitat in its jurisdiction. Yet very little of the preserve land acquired and managed to date is upland in the "Swainson's Hawk zone." Possibly 200 acres could be classified as meeting this criterion. These scattered parcels are part of a 250 acre minimum acquisition in the Fisherman's Lake area required by the Settlement Agreement between environmental groups and the City.

Under the inadequate mitigation ratio of the NBHCP, the City is supposed to have acquired 525 acres of upland to offset the impact of the development already completed. Even had the NBC acquired these lands, they could not have fully mitigated for the loss of thousands of acres of foraging lands that have been paved over since 1997. The Natomas Basin Conservancy has acquired almost 2,800 acres of mitigation land since 1999. Almost all of this land is either rice land or has been converted to managed marsh. At present, NBC does not meet the proposed requirement that 25 percent of the mitigation holdings be upland.

There is no timetable or deadline for achieving upland preserves and enhancement in a way that minimizes the impact of loss of foraging habitat in the City of Sacramento. It is possible given the NBHCP requirements that the acquisition of uplands and enhancement of these lands could be delayed for a number of years. Most of the existing Swainson's Hawk foraging habitat that is not developed or to be developed by the applicants is in Sacramento County and the land purchased to date by the Conservancy (exclusive of acquisitions in Sacramento County required under the Settlement Agreement) is in Sutter County because land prices are cheaper in Sutter County.

During the period of operation of the 1997 NBHCP, NBC acquired 1,651 acres at an average price of $3,824. [The only upland acquired was located in the far northeast corner of Sacramento County, far from any known Swainson's Hawk nest. It has since largely been reconstructed as a wetland.] The only land acquired in the Swainson's Hawk zone was in the Fisherman's Lake area under the Settlement Agreement. It included approximately 96 acres (mostly in rice but to be converted to upland) at $11,000 an acre, 40 acres at $10,000 and 116 acres at $8,250 an acre. These mostly upland properties are in an area where nesting density is the highest in the basin. These purchases were made only because of the Settlement Agreement requirements.

Given the price differential, there is no reason to believe that the mitigation for SWH habitat destroyed by the City's urbanization will be acquired any time soon absent a requirement to do so in the NBHCP. Under terms of the proposed NBHCP, the NBC could put off buying upland until after the City is fully developed. Should this occur, the substantial impacts of the loss of foraging habitat due to City authorized development would not be mitigated or minimized to the maximum extent practicable, or at all.

There are no guarantees that there will be a market for the Sutter County lands proposed for industrial and commercial purposes. If Sutter does not develop, and City fees

are spent on wetland mitigation lands, the upland mitigation lands would not be acquired. Moreover, if Sutter County does develop, it is our understanding that the major landowners will mitigate with rice lands that they own, rather than pay an acquisition fee. These are plausible scenarios that would leave the City's impacts on Swainson's Hawk habitat largely unmitigated.

Nothing in this plan protects the nesting and foraging habitat in the County of Sacramento portion of the Swainson's Hawk zone. This important area is simply assumed to remain "as is" with the possible exception of acquisition of reserve lands that would be more intensely managed for Swainson's Hawk forage. This assumption relies on voluntary actions by private land owners and the County of Sacramento. These assumptions are unwarranted as evidenced by recent habitat destruction by the County Department of Airports, numerous development approvals by the County of Sacramento in or near the Swainson's Hawk zone, and continuing development applications and expectations by landowners in the Swainson's Hawk zone.

Meanwhile the City has applied for a permit which would include development of 180 acres within the Swainson's Hawk zone. To be consistent with the conservation program proposed, and to provide protection for nesting and foraging Swainson's Hawks in the Swainson's Hawk zone, the regulatory agencies should deny a take permit for any lands west of El Centro Road in the City's application that have not already been developed.

As explained elsewhere, the NBHCP assumes owners of contiguous parcels in the Swainson's Hawk zone to voluntarily sell lands or conservation easements to the NBC at affordable prices. The NBHCP fails to establish any rationale why these voluntary actions are likely to happen, particularly given the history of acquisitions to date, and the proposals for future additional development in the Basin.

In addition, the NBHCP and EIR/EIS claim that marsh edges will be used for Swainson's Hawk foraging to help mitigate for loss of foraging lands in the City of Sacramento. Again, the timing for availability of marsh edges and
O2-10 their at some distance from Swainson's Hawk nests impacted by development makes reliance on this source of additional prey very questionable.

O2-11 **3. Draft NBHCP and EIR/EIS Assertion that Impacts on Swainson's Hawk Will Be Less than Significant Is Not Supported by Evidence in the Documents.**

The draft NBHCP and EIR/EIS assert that the impacts of the authorized development on the Swainson's Hawk and its habitat will be less than significant. The EIR/EIS (4-76) states that :

"few territories. . , are likely to be abandoned as a result of the project

reduction in foraging habitat acreage for the following reasons:

• Loss of potential foraging habitat would primarily occur away from nest sites where it is less valuable to nesting Swainsons' Hawks

• Maintenance of foraging habitat in the Swainson's Hawk Zone would be a focus of the proposed action, and most of the nest sites are located in this zone

• upland reserves would be managed to provide better quality foraging habitat for Swainson's Hawk than is provided in agricultural fields

• Foraging habitat is probably not currently limiting because of the large amount of agricultural fields available in the the Natomas Basin and surrounding areas and the ability for Swainson's Hawk to forage over larger distances.

Lastly, upland reserve sites in the Swainson's Hawk Zone would be acquiried with habitat contiguity as a primary consideration. The acquisitions by the Conservancy would ensure that substantial amounts of Swainson's Hawk habitat would be maintained in close proximity to occupied nesting habitat.. . . . selected using a strategy that maximizes the Conservancy's ability to maintain Swainson's Hawks in the basin (. . . not randomly selected. . ..). For these reasons, the reduction in foraging habitat associated with the covered activity of urban development is not expected to result in the loss of territories associated with nest trees located outside of the development areas. Therefore the proposed Action's conservation program for Swainson's hawks would reduce potential impacts to Swainson's hawks to a less-than-significant level."

Further detail is provided at 4-72 and 4-73 regarding these points. The [unfounded] assertion is made that "Nonrice crops (e.g. row crops) are used less (Estep, 1989; Babcock, 1995) and considered poorer quality foraging habitat for Swainson's hawk than native grasslands, alfalfa and pasture. Upland habitat in the reserves would be alfalfa or native grassland and would be managed specifically to provide foraging habitat for Swainson's hawk."

The findings regarding the Swainson's Hawk Conservation program in the NBHCP and the findings of the EIR/ EIS are not supported by independent biological expertise, known scientific information, previous findings by the regulatory agencies and the requirements of the NBHCP.

O2-11

O2-11(B) Assumptions about where and how much habitat for Swainson's Hawk will be acquired are based on assumptions about how the plan will operate not on requirements of the plan. For example, nothing in the NBHCP requires that upland habitat be acquired in

the "Swainson's Hawk Zone" or that "substantial amounts of habitat would be maintained in close proximity to occupied nesting habitat." These are priorities and preferences and not requirements of the plan. Acquisitions to date do not achieve the standard identified in the EIR/EIS as resulting in less than significant impacts. (See below for discussion of imbalance between upland habitat lost and upland habitat conserved to date.)

O2-11(B)

The NBHCP and EIR/EIS do not document that the foraging lands being converted to urban uses are far from the nesting sites served. ("Loss of potential foraging habitat would primarily occur away from nest sites where it is less valuable to nesting Swainsons' Hawks.") The EIR/EIS and NBHCP identify over half of the foraging lands in the Basin as within one mile of a nest. They do not identify the maximum distance of foraging lands from a nesting site. Inspection of the map in the NBHCP and EIR/EIS of nesting sites demonstrates that the foraging lands being destroyed by urbanization of the City are within 2 miles of an 1997 nest site and no part of the Basin is greater than five miles from a nesting site. The foraging lands destroyed by City urbanization are within five miles of the nests along the river. The CDFG Staff Report recommends mitigation up to 10 miles from nesting sites, and requires at least one-half to one mitigation ratio for all Swainson's hawk foraging habitat within 10 miles of a project.

O2-11(C)

The NBHCP and EIR/EIS fail to establish any biological basis for the assertion that the lands acquired would be managed to produce the foraging value of the foraging lands destroyed.

Neither the NBHCP nor the EIR/EIS provide documentation that lands in the Sutter County portion of the Swainson's Hawk zone, mostly rice fields, could be managed for high quality Swainson's Hawk foraging habitat when to date they have provided very little habitat for Swainson's Hawks.

O2-11(D)

The NBHCP and EIR/EIS rely on judgements about the relative value of different types of foraging lands that are not supported by any evidence. Neither Estep (1989) nor the CDFG Staff Report (see below) support the assertion that non-rice crops have lower foraging value than grasslands, alfalfa and pasture. Nor does the NBHCP and EIR/EIS provide any evidence that 2,175 acres of land managed in grasslands, alfalfa and pasture can provide at least the forage value of all the foraging lands to be destroyed (over 8,000 acres) in addition to the original foraging value of the preserved lands. This amounts to about 5 times the original foraging value of the lost habitat and the preserved habitat lands combined.

O2-11(E)

While it is possible that upland acquired may be converted from rice lands or orchards, it is also likely that such lands would not be closely located to active Swainson's Hawk nests. Nests are located near the best forage. If habitat land is to be acquired near dense nesting areas, it is much more likely that the upland acquired will have been foraging habitat for Swainson's Hawk. The NBHCP and EIR/EIS do not explain how such lands could be so fully en-

hanced as to produce five times as much prey as presently produced. Nor do they explain why it would make sense to acquire lands presently not used for Swainson's Hawk forage that are located at a greater distance from prime nesting areas, and invest heavily in them to increase forage values, instead of acquiring lands next to existing nest sites to make sure that habitat values are sustained and improved to sustain existing nesting pairs.

O2-11(E)

The NBHCP and EIR/EIS document that very little of the land in Natomas has been used for alfalfa production. One strategy for increasing habitat values would be to substantially increase alfalfa production in the Basin by using preserve lands for that purpose. While most experts agree that alfalfa fields provide high forage value and are attractive to Swainson's Hawks, nowhere in the NBHCP is there analysis of how much land in the Swainson's Hawk zone could be acquired and converted to alfalfa production, and what the resulting habitat improvement would be. Are there barriers to alfalfa production in the basin?

O2-11(F)

4. New Information in the EIR/EIS Ignored in the Drafting of the NBHCP.

The new information developed as part of the EIR/EIS process has revealed that underpinnings of the mitigation program in the 1997 NBHCP were not supported by biological evidence. Specifically, the myth that the Natomas Basin was a mix of habitat and non-habitat was not supported by the GIS analysis that documented habitat types in almost all of the Basin that supported either Giant Garter Snake or Swainson's Hawk and other species. In 1997, the regulatory agencies argued that the one-half to one mitigation ratio was acceptable for a Basinwide plan because it included mitigation at the same ratio for every property developed regardless of habitat value. The EIR/EIS alternatives analysis demonstrated that this myth is not supported.

O2-12

The EIR/EIS also developed information about alternative mitigation programs that would increase the amount of habitat protected. These alternatives were identified as environmentally superior to the proposed plan.

The NBHCP at I-25 to I-27 summarizes the changes made in the NBHCP between the 1997 and 2002 versions. However, the revisions addressing the mitigation ratio and other basic assumptions of the NBHCP are conclusory rather than analytic, and do not make use of new information to explain the findings made.

The court-ordered redrafting of the NBHCP and preparation of an EIR/EIS have provided new information to the design of a habitat conservation plan for Natomas Basin. The NBHCP at I-23 to I-24 summarizes the chronology of NBHCP preparation since August 15, 2000 when Judge Levi held that the record did not support he Service's findings in issuing an ITP to the City of Sacramento. Missing from that chronology are events indicating that political pressure was applied to ignore the new information, accelerate completion of the NBHCP and address only a limited set of questions in the revisions.

O2-13

We are appending a letter dated December 14, 2001 from Sacramento area Congressional representatives, Robert Matsui and Doug Ose, to US Fish and Wildlife Service. The letter, appended, called for the Service to limit its analyses. One of these Congressmen, Doug Ose, has a personal financial conflict of interest on matters affecting regulatory actions in the Natomas Basin. Environmental groups wrote to the Congressmen asking them not to interfere in the regulatory process (letter appended). Mr. Ose did not respond to the letter, but previously told environmental representatives that he does not believe his partnership in 1200 acres of Natomas land for which development entitlements are being sought precludes his active involvement with regulatory issues in the Natomas Basin.

Our analysis of the documents circulated for public review indicates that although substantial new information was available, applicants gave little thought to the new information available and the opportunity to assess alternative mitigation programs. Instead, they and landowners in Natomas asked Congressmen to pressure the US Fish and Wildlife Service to expedite approval of the revised NBHCP and confine changes to a very limited set of issues.

O2-13

Thank you for this opportunity to review the Natomas Basin Habitat Conservation Plan 2002 draft and the associated environmental documents. We believe substantial changes must be made for the NBHCP to conform to legal requirements, including permanent habitat protection near existing nesting sites of at least 11,000 acres of well managed Swainson's Hawk foraging habitat.

O2-14

Sincerely,

Judith Lamare, President
916-447-4956

James P. Pachl, Legal Counsel
916-446-3978

Attachments

Friends of the Swainson's Hawk is an educational organization dedicated to the survival of this species. *Los amigos del aguilillo de Swainson, es una organizacion educativa dedicada a la sobrevicencia de dicha especie.* Less than 1,000 Swainson's Hawks have survived in the Sacramento-San Joaquin Valley, 90 percent nesting within 50 miles of downtown Sacramento. These hawks migrate south to winter in Mexico, and beyond.

Executive Summary
Sacramento Area Flood Control Agency
Swainson's Hawk Giant Garter Snake
Draft Habitat Conservation Plan

Prepared by

EIP Associates
Sacramento, California

February 1992

Economics and Implementation

- Recht Hausrath
  Urban Economists
  Oakland, California

- Ralph Brown
  Conservation Partners
  Menlo Park, California

Biological Background

SWAINSON'S HAWK

- Sid England, Davis, California
- Peter Bloom, Santa Ana, California

GIANT GARTER SNAKE

- George Hansen, Sacramento, California

Cover Art and Design: Bronwyn Hogan, EIP Associates

Photographs: Peter Bloom, Jim Estep, George Hansen

TABLE 5-4
NATOMAS BASIN ALTERNATIVES EVALUATION SUMMARY

Alternatives	Biological Criteria: HCP Goals and Objectives				Land Use Criteria	
	Risk	Maintain Permanent Population within Study Area	Impact Avoidance[1]	Non-Urban/Land Species Habitat	Consistency with Local Plans	Compatibility with Airport Operations
1. Minimal Management	• Substantial risk to Swainson's Hawk due to loss of foraging habitat. • Substantial risk to GGS due to loss of habitat (rice/wetland mimic) and edge effects from urbanization.	• Will ensure permanent population of both species within study area. • Complete Swainson's Hawk foraging corridor along river maintained. • Large blocks of interconnected GGS habitat maintained.	• 11,355 acres of Swainson's Hawk foraging habitat preserved; 50% preserved. • 13,020 acres of GGS habitat preserved; 55% preserved.	• Provides substantial upland and "wetland" habitat in association with Swainson's Hawk foraging and GGS "wetland" habitats.	• Swainson's Hawk lands generally consistent with adopted and proposed plans. • GGS lands generally consistent with adopted plans but substantially inconsistent with proposed plans.	Compatible
2. Highly Managed	• Substantial risk to Swainson's Hawk due to loss of foraging habitat. • Severe risk to GGS because of greater loss of habitat than Alternative 1 and increased habitat to edge-effects ratio.	• Permanent population maintained for both species but smaller GGS population than Alternative 1. • Presumes success of Swainson's Hawk and GGS habitat values, management and habitat creation. • Complete Swainson's Hawk foraging corridor along river maintained.	• 10,040 acres of Swainson's Hawk foraging habitat preserved; 37% preserved. • 6,110 GGS acres preserved; 26% preserved.	• Provides substantial upland habitat. • Provides substantial, but considerably less "wetland" habitat than Alternative 1.	• Lands for both species generally consistent with adopted and proposed plans.	Compatible
3. On-/Off-Site Combination	• Severe risk to Swainson's Hawk due to foraging habitat reduction and discontinuous corridor along Sacramento River. • Very severe risk to GGS due to extirpation of most of Natomas population and uncertainty of off-site feasibility.	• Permanent but smaller population maintained for Swainson's Hawk than Alternatives 1 or 2. • Incomplete corridor along river. • No significant on-site GGS population maintained.	• 9,100 acres of Swainson's Hawk foraging habitat preserved; 34% preserved. • 0 on-site GGS acres preserved; 20,350 off-site acres preserved (84% preserved).	• Reduces upland habitat and eliminates all on-site wetland habitat. • Up to 20,350 acres of off-site wetland habitat preserved.	• Lands for both species generally consistent with adopted and proposed plans.	Compatible

[1] See Table 5-2 for detailed analysis.

DFG000880

Congress of the United States
House of Representatives
Washington, DC 20515

December 14, 2001

The Honorable Gale Norton
Secretary of the Interior
1849 C Street, N.W.
Washington, D.C. 20240

Dear Secretary Norton,

We are writing to seek your assistance in assuring that the Natomas Basin Habitat Conservation Plan (HCP) is completed on time. As you may know, four public entities in California have been working over the past year in partnership with the Sacramento Ecological Services Office of the Fish and Wildlife Service to revise the Natomas HCP to meet requirements set forth by a federal judge in August 2000.

The Natomas HCP is a high-profile regional HCP that if not completed on time could significantly tarnish the image of the HCP program in the eyes of the development community. In fact, HCP's are strongly bi-partisan initiatives that provide a highly workable approach to making environmental protection and economic growth compatible. Failure to complete the Natomas Basin HCP process on a timely and fair basis could adversely impact one the few effective tools available to protect the environment.

While cooperation among the involved federal and local governmental agencies has been positive, signs are emerging that the agreed-upon date for completion of the revised HCP and issuance of Incidental Take Permits may slip for the third time.

We are concerned that the Service is taking actions that go well beyond the requirements set by the judge. Considerable review indicates that there is no need to substantially rewrite the Plan. Rather, the Plan should only be revised to address the following concerns raised by the judge:

- The record needs to support the Service's finding that the Plan minimizes and mitigates take of protected species to the maximum extent practicable. In the judge's words: "the record should provide some basis for concluding, not just that the chosen mitigation fee and land preservation ratio are practicable, but that a higher fee and ratio would be impracticable."
- The record needs to demonstrate that the Permittee(s) will "ensure" adequate funding. The judge held that, "in light of the City's explicit refusal to 'ensure' funding in the event of a shortfall," the Service's funding that the HCP can be

implemented by some individual permittees, but not by others without affecting the conservation program, is not supported by the record.

- The record needs to demonstrate that the Plan will not jeopardize the continued survival of the species if only some jurisdictions seek a permit (No Jeopardy Finding). The judge held that the no jeopardy findings were valid if all jurisdictions participate, but that the Service failed to adequately consider whether the no jeopardy finding could be made if only the City was issued a take permit.
- The Service needs to prepare an Environmental Impact Statement in conjunction with approval of the Plan and issuance of any permits.

Above all, we want to make certain that the FWS managers understand the importance of completing the Natomas HCP on time. If we fail to meet the May 1, 2002 deadline, there will be unacceptably large economic, environmental and financial consequences on the City of Sacramento, Sutter County and other entities in the Natomas Basin area.

Already, delays in completing the HCP revisions and reissuing the Incidental Take Permits are leading to rapidly escalating acquisitions costs for mitigation lands. Further delays could lead to a significant reduction in the quantity of lands acquired under available Section 6 funding, reductions in the quality of mitigation lands acquired, and unnecessary increases in mitigation fees that are passed on to the home-buying public in the region. Approximately 1.5 billion dollars has been invested in infrastructure in North Natomas. Much of this is a product of bond financing, placing the City's economic credibility is on the line.

We very much appreciate your efforts to insure that the May 1st deadline is met and that the Natomas HCP process receives the support it deserves.

Sincerely,

Robert T. Matsui
ROBERT T. MATSUI, M.C.

DOUG OSE, M.C.

SIERRA CLUB
FOUNDED 1892
Mother Lode Chapter
Northern California and Northern Sierra Nevada

Environmental Council Of Sacramento
Friends of the Swainson's Hawk

January 21, 2002

Congressman ROBERT MATSUI fax: (916) 444-6117
Congressman DOUG OSE fax: (202) 226-1298
House of Representatives
Washington, D.C. 20515

RE: Your letter to Honorable Gale Norton, Secretary of the Interior, regarding Natomas Basin Habitat Conservation Plan, dated December 14, 2001.

Dear Congressmen Matsui and Ose,

Our organizations were among the plaintiffs who successfully sued in Federal District Court to set aside the defective Natomas Basin Habitat Conservation Plan, August 15, 2000. After the Judgment, the plaintiffs negotiated a Settlement Agreement, approved by the Federal Court on May 15, 2001, that allowed the City of Sacramento to permit up to 1,668.5 acres of grading in North Natomas pending completion of the revised Natomas Basin HCP. Approximately 1,063 acres has been graded under the Settlement Agreement; and the remaining 600 acres can be graded this Summer if the City continues to carry out its obligations under the Agreement.

In January, we heard of a letter from Congressmen Matsui and Ose to Secretary of Interior Gail Norton. We received a copy on January 15, 2002. The Congressmen demanded that the NBHCP be completed by May 1, 2002, which would be impossible to do even if the draft NBHCP were perfected today, due to the public review requirements of NEPA, CEQA, and the Federal and State Endangered Species Acts. Having been excluded from the discussions, the environmental community does not know the causes of the delay. However, rumors point to differences amongst multiple parties, complex biological and land use issues that may be in dispute, and very serious understaffing of the Sacramento Fish and Wildlife Service Office.

We were shocked and dismayed at much of the Congressmen's letter, which made demands that were clearly improper and unethical. We are also shocked that Congressman Ose participated in this letter despite his clear conflict of interest.

1. Conflict of Interest of Congressman Ose

Conflict of interest is a serious issue because the Congressmen's letter of December 14, explicitly seeks to influence the content of the revised NBHCP by

directing the U.S. Fish and Wildlife Service to revise the prior NBHCP only to address certain concerns stated in their letter, and to make no other changes in the prior Plan. (". . the Plan should only be revised to address the following concerns . .").

It is a serious conflict of interest when a Congressman attempts to limit the content of Habitat Conservation Plan and Incidental Take Permit that may have a substantial direct financial impact upon 1,118 acres of valuable land owned by one or more members of the Congressman's immediate family, including the Congressman's father.

Ose Land Company No. 2 owns approximately 62 acres (Parcels 225-0030-033, -35, -36, -38) within the City of Sacramento North Natomas Community Plan, which would be covered by the revised NBHCP when completed. This Ose land is very valuable due to its location bounded by the intersections of two main highways and two major roads. Although it is one of the parcels that could be graded under the Settlement Agreement (if the City carries out its obligations under the Agreement), its potential for development and market value may greatly increase if and when a revised NBHCP is approved which authorizes build-out of the entire City North Natomas area. If this Ose property is developed after the revised NBHCP is approved, the mitigation fees payable by the owner(s) of this Ose property, and other mitigation measures affecting development of the property, will be determined by the revised NBHCP, which Congressman Ose seeks to influence by the Congressmen's letter of December 14, 2001.

Ose Land Company No. 3 owns 1,056 acres (Parcels 201-180-14, -18, 201-220-39) in unincorporated Sacramento County, Natomas Basin, east of Hwy 99, between the City's North Natomas Community Plan area and the proposed South Sutter County Specific Plan (industrial development to be covered by the revised NBHCP). This area is agricultural, but Ose Land and neighboring landowners are actively seeking designation for urban development. Issuance of a revised NBHCP covering the City and South Sutter development area, and the resulting development of these areas, may greatly increase prospects for future development of this Ose land, and thus could greatly increase the market value of that land. The content of the revised NBHCP, including the biological analysis in the EIS/EIR and Biological Opinion, may affect the ability or inability of this Ose land to obtain Incidental Take Permits in the future.

The principal of the Ose Land Companies is Mr. Enloe Ose, a major land developer and the father of Congressman Ose. Eventually, Mr. Ose's Estate Plan may cause these properties, or their proceeds of sale, to pass to Mr. Ose's beneficiaries, who may include the Congressman. Congressman Ose worked for the Ose Properties for eight years, until 1985, as a project manager. Congressman Ose's intervention is a clear conflict of interest, made serious by the letter's attempt to influence the content of the revised NBHCP which may substantially affect the value and marketability of the Ose properties in Natomas Basin.

We are not alleging that any member of the Ose family, other than the Congressman himself, solicited or participated in the Congressmen's letter or committed any impropriety; and we are not criticizing the Ose family.

In February 2001, Congressman Ose intervened to "put on hold" a federal grant to the Natomas Basin Conservancy to preserve wildlife habitat in Natomas Basin. At that time, Sierra Club and Friends of the Swainson's Hawk, in a letter to Congressman Ose dated February 26, 2001, suggested:

> "- - - it could be a serious conflict of interest for you or your office to intervene with Federal agencies on Natomas Basin issues, or to otherwise attempt to influence the actions of Federal agencies affecting the Natomas Basin and lands within the Natomas Basin. Of particular sensitivity are Federal decisions as to protection of threatened and endangered species within Natomas Basin, which may affect land uses and property owners within Natomas Basin."

We call upon Congressman Ose to explain to the public, to his constituency, and to Secretary Norton why he thinks that he does not have a conflict of interest in attempting to dictate the content of an NBHCP which will directly affect the value and marketability of 1,118 acres of valuable property owned by one or more members of his immediate family. Why did Congressman Ose fail to disclose his conflict of interest to Secretary Norton in the Congressmen's letter to her?

2. **The Congressmen Are Improperly Urging U.S. Fish and Wildlife Service to Unlawfully Violate NEPA by Attempting to Limit the Content of the Revised NBHCP Without Public Review**

As stated above, much of the Congressmen's December 14 letter improperly directs the U.S. Fish and Wildlife Service to revise the prior NBHCP only to the extent necessary to address certain concerns stated in their letter, and to make no other changes to the prior NBHCP which was found deficient by the Federal Court.

By doing so, the Congressmen are urging the U.S. Fish and Wildlife Service to violate NEPA, which precludes an agency from committing to a particular course of action prior to completion of NEPA analysis (the EIS), and the extensive public review required by NEPA and CEQA. The Service must take into account all that NEPA requires in project review. USFWS cannot lawfully limit their review of issues to those identified in your letter; nor can the EIS be a rubber stamp for approval of a decision made prior to completion of NEPA review. 40 C.F.R. 1502.2(g). As you know, the NEPA review of the prior NBHCP cannot be relied upon for the revised NBHCP because it was found to be defective by the Federal Court.

It is unconscionable that Congressmen would pressure the Department of the Interior to stop working on difficult issues and shove the Plan out the door with minimal changes.

Quite bluntly, the Congressmen's attempt to dictate the content of the revised NBHCP, which has not been subject to legally-required public review by their constituencies, is an outrageous violation of their duties to their constituencies and to the public, and as Congressmen.

3. **Significant and Difficult Issues Must Be Solved before the NBHCP and Incidental Take Permits Can Lawfully be Approved.**

The Congressmen seem to believe, mistakenly, that the former NBHCP need not undergo any revisions other than four items listed by the Congressmen's letter. They misunderstand the Federal Court's decision and clearly are unfamiliar with some very basic facts and issues which must be taken into consideration and resolved to create a revised NBHCP that is biologically and legally sound. A few are listed below.

The only applicant on the former NBHCP was the City of Sacramento. The other jurisdictions in Natomas Basin did not participate and had no input. Sutter County, Reclamation District 1000, and Natomas Mutual Water Company are now among the applicants, and Sacramento County Airport now reportedly wants NBHCP coverage. The MetroAirPark HCP (if approved) will merge into the revised NBHCP. There are issues and concerns as to each applicant and jurisdiction which must be solved by the revised NBHCP, which were not addressed, or were addressed inadequately, in the prior NBHCP.

Moreover, the revised NBHCP must comply with new Federal and State regulations and new governing State law (Fish and Game Code Section 2081) which did not exist on December 31, 1997.

Several years of experience with the former NBHCP and its mitigation program, new scientific information about species in Natomas Basin, and development proposals and activities outside of the City's North Natomas Community Plan have raised many more issues which were not addressed in the former NBHCP, or were addressed inadequately, but which must be solved if the revised NBHCP is to be biologically and legally sound. This list includes fragmentation of species habitat; inappropriate siting of development; failure to protect habitat connectivity and connectivity between the NBC preserve lands; severe impacts upon species, particularly Giant Garter Snakes, due to major modification of waterways (Giant Garter Snake habitat) to accommodate development; the possibility of cessation of agriculture (species habitat) in the Basin due to the impacts of development; and others. We will gladly provide more information upon your request.

Of particular concern is the proposed South Sutter County Specific Plan, for 3,500 acres of industrial development, pending before the County Planning Commission, which is to be covered by the revised NBHCP. The proposed South Sutter Specific Plan has such serious environmental and legal deficiencies that it cannot be lawfully covered or permitted by any HCP or Incidental Take Permit. It violates the Federal and State Endangered Species Acts, the legal prohibitions against the discharge of contaminated wastewater into groundwater and surface water (impacting Natomas species, particularly the threatened aquatic Giant Garter Snake), CEQA, California planning laws, and federal air quality requirements. Federal and State Incidental Take Permits can be issued only for projects that are otherwise lawful, which the South Sutter project, in its present form, is not.

On January 11, 2002, James Pachl, Attorney, a signatory of our letter, gave to the Congressmen's representatives copies of some of the formal comment letters on the

South Sutter Specific Plan and Draft EIR submitted by a number of government agencies, organizations, and scientists with major concerns. We respectfully urge the Congressmen to review and consider the issues raised by those commenters before contemplating any further intervention for approval of a revised NBHCP. Major deficiencies must first be cured.

We do not know what issues are being addressed and resolved (or not addressed or resolved) by the draft NBHCP because the draft documents have been withheld from the public and the environmental community excluded from the discussion.

4. **Escalating costs for acquisition of mitigation lands occurred before the NBHCP was invalidated, and have been encouraged by local governments**

The Congressmen's letter claims that "delays in completing the HCP revisions and reissuing the Incidental Take Permits are leading to rapidly escalating acquisition costs for mitigation lands." In fact, land costs in Natomas escalated during the period when development proceeded under the old, invalidated HCP.

Unwise actions by Sutter County and staff of the City of Sacramento have persuaded many Natomas owners of farmland that they may eventually receive urban development entitlements in the distant future, and that therefore their land is now worth a great deal. High-level staff of the City of Sacramento, and others, are proposing that the City plan for the future annexation and urbanization of approximately 6,000 acres of presently unincorporated Natomas farmland. The Sutter County General Plan designates 10,500 acres of farmland in Natomas Basin, Sutter County, as an "Industrial/Commercial Reserve", although cumulative development in excess of 3,500 acres would require a General Plan amendment.

Development of much these lands is economically infeasible, unless taxpayers subsidize the high infrastructure costs, but local governments seem either more interested in currying favor with the landowners (some of whom are speculators) than in protecting the public, or perhaps merely reluctant to be the bearer of bad news to the landowners. Whatever their motivation, because local government is telling landowners that they may eventually receive urban development entitlements, the landowners understandably do not want to sell their land to the Natomas Basin Conservancy for depressed agricultural land prices.

Sutter County has gone even further. At the December 5, 2001, Planning Commission hearing, attended by undersigned James Pachl, on the proposed South Sutter Specific Plan, a farmer, whose land is within the 10,500 acre "South Sutter Industrial/Commercial Reserve", but is outside the proposed 3,500 acre Specific Plan, asked the Commission if he could sell his farmland to the Natomas Basin Conservancy. The Sutter County Director of Planning publicly told him that the County strongly discouraged sale to the Conservancy because the County intends for future development of the entire 10,500 acres.

Moreover, the proposed South Sutter Specific Plan includes actions which will have severe direct impacts upon three of the existing Natomas Basin Conservancy Preserves. These impacts are stated in the letter of the Natomas Basin Conservancy to

Sutter County, December 21, 2001, which is among the documents given to your staff members Julie Adair and Kim Vann on January 11, 2002.

Ironically, approval of a revised regional HCP, which the Congressmen seek, may further escalate the price of mitigation land, because the development permitted by a revised NBHCP will generate market demand for mitigation land. We have repeatedly advised landowners and their representatives that it would be cheaper to acquire mitigation lands now, rather than later.

The Settlement Agreement of May, 2001 puts in place a land acquisition strategy that ensures high quality habitat is acquired in areas that otherwise will degrade and be vulnerable to future urban expansion. It ensures that these lands are acquired at market value. This is a way to control the cost of acquisition of land for habitat preserves.

5. **The Congressmen's Claims that Further Delay In Approving the NBHCP will Cause Economic Loss For Are Unsupported by Facts**

The Congressmen's letter claims that "if we fail to meet the May 1, 2002 deadline, there will be unacceptably large economic, environmental, and financial consequences on the City of Sacramento, Sutter County, and other entities in the Basin area." The Congressmen fail to point out (or were not told) that another 600 acres of development is permitted by the May 15, 2001 Settlement Agreement provided that the City continues to carry out its obligations under the Agreement.

The City used a similar argument in its unsuccessful attempt to persuade the Federal Court to not enter judgment in the Federal case; and the plaintiffs showed that this claim was spurious.

Costs of development of the City's North Natomas infrastructure are paid for by Mello-Roos bonds which are repaid exclusively by Special Taxes levied upon properties in Community Facilities Districts comprised of the lands which benefit from the infrastructure. The bonds expressly exempt the City's general fund from liability. The City wisely planned its Natomas financing by creation of multiple overlapping small Community Facilities Districts which correlate with the planned stages of development. Construction of infrastructure and bonding for infrastructure costs are carefully correlated with stages of development and the boundaries of the Community Facilities Districts that are to be served by the infrastructure; and construction of infrastructure is timed and correlated with the development. As a result of the City's prudent strategy, most of the Mello-Roos bond indebtedness is supported by tax-generating development, either completed or underway, that was permitted by the former NBHCP or the May 15, 2001, Settlement Agreement. It is not unusual for long-term development projects, such as Natomas, to be interrupted for reasons not related to HCP's, and the City prudently planned accordingly. The Congressmen's claim that "the City's economic credibility is on the line" is simply not believable for anyone who knows the facts.

Developing North Natomas has been a profitable business venture for the City. The major retail shopping areas developed under the former NBHCP are producing large sales tax revenue for the City; and substantial property tax revenues are gleaned

from the high-priced homes that comprise most Natomas residential development. North Natomas is a cash cow for the City of Sacramento.

To the best of our knowledge, the Counties of Sutter and Sacramento have incurred no costs or obligations for future development that needs an NBHCP to go forward. Natomas Mutual Water Company and Reclamation District 1000 are in no hurry. The Congressmen should not intervene to benefit speculators who are trying to "pump up" the value of their land or who may have over-mortgaged raw land.

6. <u>What Can the Congressmen Do That Is Constructive?</u>

USFWS is severely understaffed. Important work needs to be completed as soon as possible for our region to have a workable regional HCP. We very much would like to see additional resources at the USFWS Sacramento office to work on endangered species and habitat issues in our region. In particular we are concerned that no sustained effort has been made to use the federal funds already granted for the Natomas Basin, to help acquire habitat protection in Natomas.

However, your letter doesn't ask for additional staff or resources to be assigned to the task. Instead, your letter implies that all that is needed is a "sign-off" on issues even though environmental groups and the public have not even been heard, and there has been no public review.

The Congressmen can encourage Sutter County to fix its proposed South Sutter County Specific Plan so that it is environmentally sound and in compliance with law. The Draft EIR for the South Sutter project, pp. 3-42 through 3-45, permits development without Incidental Take Permits if the NBHCP is not approved before Sutter wants to start developing. Independent sources state that Sutter County in fact intends to proceed without Incidental Take Permits, even though the project area is occupied habitat of species protected by the Federal and State Endangered Species Acts. We respectfully ask the Congressmen to discourage Sutter County from taking this precipitous and unlawful course of action, and to support the U. S. Fish and Wildlife Service if that agency needs to undertake enforcement action against Sutter County.

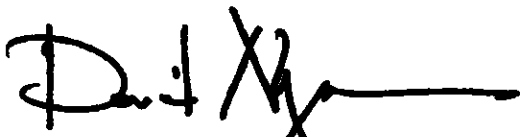
Please understand that your constituencies and responsibilities as Congressmen are not limited to the developers and their representatives.

Representatives of our organizations are more than willing to meet with you to discuss issues and facts concerning Natomas Basin. We request that you do so before you send any more letters of this type to regulatory agencies or otherwise intervene in connection with the Natomas Basin HCP.

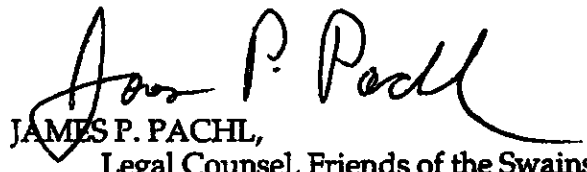
Sincerely,

Vicki Lee

VICKI LEE,
Chair, Sierra Club – Mother Lode Chapter
1414 K Street, Suite 300, Sacramento, CA 95814 (916) 447-3672



DAVID MOGAVERO,
President, Environmental Council of Sacramento
2012 K Street, Sacramento, CA 95814 (916) 443-1033



JAMES P. PACHL,
Legal Counsel, Friends of the Swainson's Hawk
817 – 14th Street, Suite 100, Sacramento, CA 95814 (916) 446-3978

cc: Honorable Gale Norton, Secretary of the Interior
Wayne White, Cay Goude, U.S. Fish and Wildlife Service
Robert Hight, Director, California Department of Fish and Game

Institute for Ecological Health
409 Jardin Place, Davis, California 95616 ▪ Ph/fax 530-756-6455 ▪ ieh@cal.net

December 4th 2002

Field Supervisor
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento CA 95825

Re: Comments on the Draft Natomas Basin HCP

Dear Sir:

I would like to submit the following comments on behalf of the Institute for Ecological Health, a state-wide non-profit sustainable land use organization.

O3-1 Overall, the biological and conservation provisions of this Draft Plan are seriously inadequate. There are a number of major assumptions that are not justified. No scientific documentation is provided for many issues and statements. The 20 species in addition to the Giant Garter Snake and the Swainson's Hawk that are proposed for permit coverage have minimal treatment and conservation strategies and so should not be covered by this Plan. Very major revisions are necessary, and I request that a revised version have a public comment period.

O3-2 We are also concerned that land use decisions under consideration by the City of Sacramento and the County of Sacramento will undermine what chance this HCP has for success and recommend that the Service not issue a 10(a)(1)(B) incidental take permit until this situation is resolved satisfactorily.

I.C. Conservation Goals and Objectives

O3-3 While these items have an array of important requirements, they lack a number of elements that are absolutely essential for this HCP to work. Substantive revisions to the HCP are necessary in order to overcome these shortfalls.

I.C.1 Overall Goals, Overall Objectives, Wetland Species Objectives, Upland Species Objectives

O3-4 The overall goals have no time horizon, a very serious omission.

O3-5 Goal 1 "A biologically sound and interconnected habitat reserve system that mitigates impacts...." is not the same as ensuring the survival, in perpetuity, of the covered species in the Plan area.

O3-6 This HCP should have an additional goal of ensuring the survival of the covered species over the long term in the Plan Area.

O3-7 The Service's Five Point Policy (Federal Register, June 1 2000) explains the need for measurable objectives. These objectives are not measurable and need to be reworked.

O3-8 The objectives do not address the certain issues that are especially important given some of the reserves will be small (400 acre minimum).. They include:
- countering problems of edge effects,
- maintaining and enhancing ecological functions and ecosystem processes

The objectives for connectivity and for increasing diversity and abundance of covered species and revising reserve design and management based on the most current biological data do not adequately address these issues

II.C.4 Other Covered Species

O3-9 These species are not adequately addressed and for most there is very minimal information on the ecological requirements, species-habitat nexus, conservation needs, data gaps, references to the scientific literature, etc and vague conservation strategies (IV.C and V.B.4) with no specific goals and objectives for each species.

Conservation of the existing Tricolored Blackbird nesting colony site, including adequate foraging habitat (see below) is particularly important.

The additional species should not be covered by the HCP until they are properly considered, including appropriate analysis of all pertinent biological issues and the development of effective conservation strategies, including measurable objectives.

O3-10 If these additional species are addressed, this Plan should include all special status species that are known to occur in the Basin (eg: the Northern Harrier, which requires special management measures for ground nesting birds.)

O3-11 Species not likely to occur in the Plan Area, such as the California Tiger Salamander, should be dropped from the Plan. Furthermore, several of these should be considered "no take" species (eg: Sacramento Orcutt Grass).

O3-12 In addition, the Central Valley is a critically important area for wintering shorebirds and waterfowl. In mid-winter, shorebirds are documented as occurring almost exclusively in rice fields. In October 2002, the Western Hemisphere Shorebird Reserve Network designated the Sacramento Valley as a Shorebird Site of International Importance. For the Plan to adequately address biological issues in the Basin it should address, and provide for, the needs of these species to the extent that they currently utilize the Basin.

III.C Potential Development

The Sacramento County General Plan allows the building of individual units according to the zoning map that dictates the minimum parcel size. For example, the Garden Highway along the Sacramento River is deemed a Rural Residential area (1 - 10 acre parcels). Most of the Sacramento County land in the Basin that is zoned for agriculture has a 40 acre minimum parcel size. Sutter County will very likely be similar.

O3-13

There are recent cases in the region of individuals not in agriculture turning considerable parcels (eg: 40 acres) in the region into home sites. So there is significant potential for construction of individual homes (ranchettes) in many locations throughout the agricultural area. These homes will impact the biological resources and also have the potential to impact agricultural operations. This situation severely undermines the Draft Plan's assumptions regarding the basin's non-preserve agricultural acreage. The Plan must be revised to address the potential impacts and necessary conservation.

III.C.1. South Sutter County Specific Plan

O3-14 The HCP should require amendment of this plan to remove the area, including the proposed Sutter County Specific Plan wastewater disposal area, within the Swainson's Hawk Zone from the County's Specific Plan.

III.C.2 Conversion of Agricultural Lands

The Draft Plan is dependent on agricultural lands not protected though the Conservancy's reserve system remaining in suitable agricultural production. This requires a variety of crops for the Swainson's Hawk foraging areas and rice fields for the Giant Garter Snake. The Draft Plan has no way of ensuring that suitable agriculture will continue in perpetuity on these non-reserve lands.

O3-15 Current potential problems including conversion of row crops to orchards and sale of water rights. The Plan should address the potential for individual farmers to sell water / water rights to urban water purveyors such as the Metropolitan Water District, the impacts of such actions (on the biological values of fields, on the economic viability of agriculture in the Basin, and on possible development pressure on these lands). [See also comment on Changed Circumstances]

IV.C.1.a Basis for the 0.5 to 1 Mitigation Ratio

O3-16 The arguments for such a low mitigation ratio are not convincing. Issues include:

O3-17 Essentially all of the areas slated for development in the General Plans are either Swainson's Hawk foraging habitat or Giant Garter Snake habitat. Other plans, such as the preliminary draft Yolo County HCP, provide a basic 1:1 mitigation ratio for loss of any Swainson's Hawk foraging habitat.

O3-18 The Draft Plan does not adequately address the biology of species other than the Swainson's Hawk and the Giant Garter Snake and these other species should be dropped from the Plan unless there are extensive revisions.

O3-19 It is not clear that it will be possible to consolidate the TNBC reserves into large, biologically viable, units. The Draft Plan does not provide a map showing the locations of existing TNBC reserves (which are all small to very small at present and not biological viable if their landscape context changes to urban development) and their relationships to proposed development.

The are many scientific issues of individual reserve size, edge effects and ecological functions which put the in perpetuity effectiveness of the proposed reserve system in question.

O3-20 The Draft Plan proposes that buffers be within the reserve lands, not outside, (IV.C.1.c) which significantly reduces the biological efficacy of the reserve acres.

O3-21 The Draft Plan is dependent on continued, suitable, agricultural production on non-reserve lands - this is not assured.

O3-22 The effectiveness of the proposed wildlife value enhancements of reserve lands is speculative.

O3-23 The Plan should be revised to provide a minimum of 1:1 mitigation. In all likelihood, a higher ratio will be require to address the buffer and connectivity issues (see below).

IV.C.1.b Preparation of Site Specific Management Plans

O3-24 The concept "improve and manage reserves in a manner that will, to the maximum extent practicable, benefit all Covered Species" is confusing. Does this refer to the overall system of reserves or to each reserve? It is very likely that this is not an effective approach to the management of individual reserves, especially given their current very small size, since it will result in small habitat fragments. If the Plan is revised to adequately address the additional 20 species, there will be instances where management for one species is detrimental to another species.

IV.C.1.c Buffers Within Reserve Lands

O3-25 This requires buffers around reserve lands that are modified to create improved wetland habitat, giving a value of "typically 30-75 feet". There is no consideration of the need for buffers for other reserve lands (including existing wetlands and uplands), no documentation of the scientific literature to justify the 30-75 feet figure, no discussion of the various factors that require buffering (eg: run-off from roads), or of needed buffer widths. Factors to address when considering buffer needs include all factors that will affect ecosystem functions in the preserves, not just factors that will have direct impacts on a covered species.

There is an extremely extensive scientific literature on buffers and buffer widths issues. This topic should be thoroughly addressed and documented in the Plan. Buffer widths should be scientifically justified and defensible. The discussion should include documented information from the agricultural industry as to what buffer widths the industry deems necessary to (a) minimize and (b) avoid impacts on adjacent landowners.

O3-25 The Plan should require buffers of sufficient width for the specific factors being buffered in individual locations. In most cases these buffers will be significantly more than 30-75 feet. The mitigation ration should be revised to incorporate the more extensive within reserve buffer needs.

IV.C.1.d Connectivity

The Draft Plan states that " if adequate connectivity is provided for giant garter snake, then it is anticipated that other Covered Species will also be afforded adequate opportunities to migrate within the Basin." This section refers to "the backbone drainage system within the Basin and would be retained regardless of urban development." But it refers to Map 17, Connections Between Reserves, whose legend categories the major canals as "drainage canals most likely to remain during permit period."

O3-26 The Natomas Basin reserve system will require in perpetuity connectivity in order to be viable. This connectivity is not just drainage canals. The connectivity needs for each Covered Species should be specifically analyzed and provided for. The TNBC should ensure the in perpetuity conservation and operation of these connections through purchase of easements and any other necessary steps. The Draft Plan mitigation ratio should be adjusted so that TNBC can carry out essential additional steps. Without these actions the Plan will not assure biologically effective connectivity that is essential to the success of the reserve areas.

IV.C.1.e Minimum Habitat Block Size

The biological effectiveness of 400 acre reserves depends on the landscape context. For example, a 400 acre reserve surrounded by similar agricultural habitat is likely to be biologically effective, while one with ranchette development around it will be far less effective. The Plan should properly discuss and document reserve size issues and justify the long term viability of a 400 acre reserve.

O3-27 In addition, there are specific species needs that must be addressed. Thus the Swainson's Hawk population requires adequate foraging areas near nesting sites in an agricultural landscape. If the Tricolored Blackbird is covered, it will be essential to provide adequate foraging habitat close to the existing nesting colony site. It is not documented how these essential biological needs will be met through this combination of 400 acre minimum reserves plus one 2,500 reserve.

IV.C.2.b. Out-of-Basin-Reserves

There is no discussion of how up to 20% of the reserve lands can be outside the Natomas Basin and the Plan still meet its goals for species conservation in the Basin. Leaving that for future justification by the Conservancy is not adequate.

O3-28 How will this approach impact maintaining a long-term viable Giant Garter Snake population in the Basin ? How will this impact conservation of sufficient foraging habitat for the existing Swainson's Hawk territories in the Natomas Basin?

IV.C.3. Conservation Strategy for Wetland Habitat

This strategy should clearly explain what is needed to conserve the Basin's Giant Garter Snake Population and how the Plan will meet this need.

O3-29

If the final Plan addresses other species that utilize wetlands habitat it should provide similar explanations for those species.

IV.C.4. Conservation Strategy for Upland Habitat plus V.B.4. Conservation Strategies for Individual Species

This strategy is very unlikely to succeed for the Swainson's Hawk. Section VII.D.2 details very extensive impacts from planned urban development on existing Swainson's Hawk foraging habitat in the Basin. In order to aid the recovery of this species (section I.D.), the Plan must at least provide for the conservation of the current number of nesting pairs in the Basin. This Draft Plan is very unlikely to achieve that goal and so will contribute to the further decline of the species, rather than aid its recovery.

The Conservation Strategy should explain how a one-mile Swainson's Hawk zone can provide sufficient foraging habitat for the existing nesting Swainson's Hawk population, the extent of conservation or modification of existing agricultural practices needed to provide this amount of habitat, and how the Plan will ensure that this acreage remains in suitable agricultural production (including addressing the potential for ranchette development.)

O3-30

As indicated in this Draft Plan, Swainson's Hawks will fly several miles while foraging. Each nest site needs sufficient available prey within the foraging area. Exact locations will vary from year to year as crop rotations, field margin management and fallow or ruderal patches vary from field to field. Factors such as these make reliance on the one mile zone tenuous.

It is necessary to have an effective, achievable conservation strategy for each Covered Species. Section V.B.4, Conservation Strategies for Individual Species, provides some of this but the strategies are not adequate and not related to measurable objectives.

For example, the conservation strategy needs to include specific actions to conserve the foraging habitat of the Tricolored Blackbird colony, and to ensure that this habitat is in compatible uses. A Tricolored blackbird colony requires considerable foraging habitat within a 2-mile radius of the colony site. The foraging strategy in V.B.4.c assumes that foraging habitat will be provided by reserves, but does not require incorporation of adequate foraging habitat into the reserve system. A component of this strategy should be to identify the foraging habitat for the existing Tricolored Blackbird habitat, to ensure that it is protected in the TNBC reserve system and managed for Tricolored Blackbirds

O3-31

IV.C.5. and V.A.4 Conservation Strategies for Vernal Pool Species

O3-32 These are totally inadequate and fail to utilize existing scientific knowledge of the design and management of vernal pool preserves. These sections need to be either completely redone, with specific strategies for effective vernal pool habitat conservation and for each Covered Species, or all of the vernal pool associated species should be dropped from the Plan.

V.A.5.b (1) Measures to Reduce Cumulative Impacts to Swainson's Hawk Foraging Habitat

O3-33 This approach will not succeed because it fails to address the likely impacts of ranchette or rural residential development, mainly on 1 to 40 acre lots, or the potential for conversion of suitable agriculture on non-reserve lands to agriculture that is not suitable for the Swainson's Hawk.

VI.E.2b Biological Effectiveness Monitoring

O3-34 This appears to address only the numbers of individuals of covered species, except for some very vague language in the first paragraph of VI.E.3.a. Monitoring of ecosystem health and ecological function attributes that are important indicators is also necessary. For example, the overall invertebrate fauna, as opposed to just the covered species, is an important indicator for the health of vernal pools. This section should include guidance for developing a monitoring system that includes such issues, as appropriate for each covered species. The monitoring program should also allow for the future inclusion of additional items as our scientific understanding increases.

VI.F.1. Adaptive Management

O3-35 Item (1) of the list of significant uncertainties should include future research on other pertinent biological issues (eg: ecosystem functioning, landscape ecology). Our current knowledge in many fields is expanding rapidly and the Plan should utilize a broad array of future scientific advances.

VI.K.2. Changed Circumstances

O3-36 This should include sections on climate change, failure to conserve essential connectivity between reserves, and changes in agricultural practices outside the reserve system, and sale of water or water rights to out of Basin users by landowners outside the reserve system

*

The Section 10(a)(1)(B) incidental take permit

O3-37 While the Draft HCP states repeatedly that the effectiveness of the HCP depends on limiting total development in the Natomas Basin to 17,500 acres, the current "Vision" proposal of Sacramento City and County involves about 10,000 acres of additional development beyond that envisioned in this

Draft Plan. In addition there is the potential for widespread ranchette style rural development in the portions of the Basin presumed to be protected by agricultural zoning and General Plan designation.

O3-37 We strongly urge the Service to withhold approval of this HCP and issuance of an incidental take permit until the City and County of Sacramento agree not to expand the urban development acreage in the Basin, since this City/County action would make the HCP severely deficient. In addition, the Plan should be revised to adequately address the potential for low density development in rural areas.

Thank you for your consideration of these comments.

Sincerely,

John Hopkins, Ph.D.
President

12

Swainson's Hawk Technical Advisory Committee

November 1, 2002

Division Chief, Conservation Planning
U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Service Office
2800 Cottage Way, W-2605
Sacramento, CA 95825

SUBJECT: Revised Draft Natomas Habitat Conservation Plan

Dear Division Chief,

The following are comments from the Swainson's Hawk Technical Advisory Committee (TAC) on the revised Draft Natomas Habitat Conservation Plan (revised Plan) and revised Draft Environmental Impact Report/Environmental Impact Statement (revised EIR/EIS) in response to the Notice of Availability dated August 16, 2002. The TAC fully supports the concept of regional planning for resource protection, including regional habitat conservation planning to protect and sustain Swainson's hawk populations in the Central Valley; we appreciate the opportunity to provide comments on these important documents as they will guide development and habitat preservation in the Natomas Basin for many years.

O4-1

INTRODUCTION

The TAC provided comments on the currently permitted Natomas Basin Habitat Conservation Plan (permitted Plan) in 1997. Many of our comments provided here are consistent with those submitted for the permitted Plan. We have focused our comments on several fundamental issues regarding the long-term sustainability of the Swainson's hawk population in the Natomas Basin.

Despite our concerns with the revised Plan, the TAC has been, and continues to be, very supportive of the efforts of the Natomas Basin Conservancy (NBC) during implementation of the permitted Plan. The NBC has been successful in their implementation efforts, and in acquiring and managing conservation lands in the Natomas Basin. We hope these efforts will continue and be as effective during implementation of the revised Plan.

O4-2

Although the revised Plan is a multi-species plan, our comments are restricted to issues regarding the Swainson's hawk. In addition, although Swainson's hawks require both suitable nesting habitat and foraging habitat for survival, our comments, and the habitat analysis below, does not include an attempt to quantify the loss of available nest trees in and around the basin. The loss of
O4-3 nest trees due to development in and around fisherman's lake, the Sacramento International Airport, and along the Sacramento River will be detrimental to the species long before trees planted on restoration sites reach maturity and usefulness to Swainson's hawks. The loss of nest trees is a significant immediate threat. The loss of foraging habitat constitutes a long-term and permanent threat with irreversible consequences from which the species will be unable to recover. Thus, our comments focus primarily on the issue of foraging habitat loss.

SPECIES CONSERVATION ANALYSIS

Long-term preservation of the Swainson's hawk, or any species, in the context of a regional habitat conservation plan requires three fundamental steps: 1) identifying the affected population;
O4-4 2) assessing the effects of the habitat conservation plan on the affected population and the regional population, including determining what portion of that population will be retained (target population) under the habitat conservation plan; and 3) establishing a management program that will sustain the target population in perpetuity.

The Affected Population

The NBC has successfully implemented the monitoring provisions of the permitted Plan such
O4-5 that the affected Swainson's hawk population in the Natomas Basin has been identified. Using this information along with current and projected land-use information, it is possible to estimate the extent of potential take on this species.

Effects of the Revised Plan on the Swainson's Hawk

The revised Plan and EIR/EIS fail to adequately assess and describe the effects of plan implementation on the Swainson's hawk. With regard to foraging habitat in the Basin, the analysis provided in the revised Plan is cursory and inaccurately characterizes the extent of long-term habitat loss and protection. Goal Number 1 of the revised Plan (Page I-14) states that the Plan will "establish and manage in perpetuity a biologically sound and interconnected habitat
O4-6 reserve system that mitigates impacts on Covered Species resulting from Covered Activities and *provides habitat for existing, and new viable populations* of Covered Species" (emphasis added). Our interpretation of this statement is that the goal of the revised Plan is to provide sufficient habitat to maintain existing population levels. This interpretation is also consistent with the revised Plan and EIR/EIS in that a sustainable target population is not identified. Therefore, we assume that the goal of the revised Plan is to maintain existing population levels.

O4-7 The revised Plan acknowledges information from annual surveys conducted by the NBC and identifies the nesting population. The revised Plan also estimates an amount of habitat that is expected to be lost through covered activities. It does not, however, address cumulative habitat

loss from all planned, proposed, and projected activities throughout the Basin. The revised Plan also fails to address how this habitat loss will affect the nesting population and whether the implementation of the revised Plan will result in take of Swainson's hawk. In addition, the finding of "less than significant" in the revised EIR/EIS (page 4-73, Summary) suggests that the authors of the revised Plan do not expect a decline in the nesting population due to habitat loss from covered activities. We disagree with the finding that the number of Swainson's hawks in the Natomas Basin will not decline as a result of the revised Plan, and CEQA requires a finding of significant environmental affect if there is a reduction in numbers of a Threatened species (Section 15065a).

O4-7

To more fully address this issue, the TAC conducted an analysis of the effects of the revised Plan and EIR/EIS on the 40 to 50 nesting pairs of Swainson's hawks that rely directly on basin resources for reproduction.

O4-8

In our analysis, we found that the quantification of land use types in the basin between 1993 and 2000 was consistent with the analysis of 1997 land use in the revised Plan (the HCP baseline). However, we divided land use into specific categories based on its suitability as Swainson's hawk foraging habitat. The revised Plan concludes that there would be a loss of 32% of useable foraging habitat due to development/preservation ratios proposed, and suggests that the loss would be compensated through land management practices on mitigation land. We have identified the following significant flaws in this analysis.

O4-9

1. The 32% reduction in foraging habitat identified in the revised Plan (which the TAC finds is underestimated) is based on the loss of Plan-covered Swainson's hawk foraging habitat as a percent of all available foraging habitat in the Basin; this by itself is misleading, as it applies only to cumulative impacts in the Basin. Since the revised Plan only covers a portion of the Basin, and by itself cannot protect other land in the Basin, the reduction of foraging habitat should also be calculated for the land covered the revised Plan and EIR/EIS only. The TAC calculated the actual foraging habitat reduction below.

O4-10

2. The revised Plan and EIR/EIS justifies a less than 1:1 mitigation ratio for Swainson's hawk foraging habitat by stating that foraging habitat on the mitigation preserves will be upgraded to a higher foraging habitat value, either to alfalfa from other upland crops, to upland crops from rice, or in the placement of preserves to maximize the foraging habitat's availability to Basin Swainson's hawks. These are inaccurate conclusions because growing alfalfa in the Basin appears economically, and probably physically, infeasible; soils that support rice do not easily support appropriate upland crops; and acquiring preserve lands is subject to land prices and availability, which reduces the likelihood of optimal placement of preserved Swainson's hawk foraging habitat.

O4-11

3. The change in available habitat is based on a 1-mile-from-nest calculation. Although both the TAC and the Department of Fish and Game consider foraging habitat within 1 mile of a nest as vital, it is not considered "more important" as the revised EIR/EIS states. Many

nesting pairs would not be able to achieve reproductive success if they had to rely solely on foraging habitat within 1 mile of the nest. Suitable foraging habitat is not necessarily contiguous and is based on seasonal and annual crop patterns, leading to foraging ranges that require flight distances much greater than 1 mile from the nest. This is a particularly important consideration where multiple nests are clumped in close proximity as they are in the Basin. It is very likely that all suitable habitat in the Basin is used by foraging Swainson's hawks, even if a nest site does not exist within several miles. Even a distance of 4 miles, a moderate flight distance for most foraging Swainson's hawks, from known nest sites encompasses 100% of available foraging habitat in the Basin. Thus, all suitable habitat in the Development Zones should be included in the analysis.

O4-11

4. The analysis in the revised Plan and EIR/EIS does not address the loss of foraging habitat immediately adjacent to and surrounding existing Swainson's hawk territories. At least ten territories would lose a significant portion of their foraging habitat that is now adjacent to their nest trees. This loss of immediately adjacent habitat in association with a significant increase in human disturbance would likely result in a 50 to 100% loss of those existing territories.

O4-12

5. The analysis in the revised Plan and EIR/EIS assumes that the relatively small patches of grassland habitat surrounding restored marsh and other mitigation lands is equivalent to cultivated upland crops. This is not an accurate characterization of the foraging value of different cover types. Large contiguous cultivated fields of hay, grain, and row crops provide the highest foraging habitat value to Swainson's hawks because of the large rodent prey populations they support and the increase in prey availability from seasonal farming operations (i.e., cultivating, harvesting). Grassland habitats do not support similar prey populations and are not subject to farming activities that enhance prey availability for Swainson's hawk use. Also, many of the preserve lands that will support these small patches of foraging habitat are likely to be surrounded by rice and urban development. It is less energetically practical for foraging Swainson's hawks to find, then hunt, on these small plots of relatively unproductive land. The current reproductive success of the Swainson's hawk population in the Natomas Basin population is based on the availability of large, contiguous tracts of more suitable habitat adjacent to nest sites.

O4-13

Loss of Habitat from Implementation of HCPs

Our analysis of habitat loss in the Basin includes separate calculations for the City of Sacramento and Sutter County portions of the revised Plan, and the Metropolitan Air Park HCP. In each case, the net loss of foraging habitat is calculated by dividing the number of Swainson's hawk foraging acres that will be lost within each development zone by the total foraging acres affected by the development (developed + preserved). No credit is given for improvements to forage value on the preserved lands as there is no requirement in the revised Plan to do so.

O4-14

City of Sacramento. Based on the land use analysis in the revised Plan and EIR/EIS combined with the TAC's crop analysis, the City's planned urban development area (8050 acres) contains approximately 6,000 acres of good quality foraging habitat for Swainson's hawks. The quality of

O4-15

the habitat is evidenced by the large number of Swainson's hawks that nest in and near the City's development zone. The City proposes mitigate its development impacts by setting aside 4,000 acres of open space/habitat outside the development zone. Of the 4,000 acres preserved, 2,000 will be retained/converted to rice, 1,000 will be converted to managed marsh, and 1,000 will be maintained as upland reserve. Approximately 25% of upland habitat will be grassland/woodland associated with the restored marsh, leaving 750 acres as potential Swainson's hawk foraging habitat. Fallow rice fields are also usable foraging habitat for Swainson's hawks, and approximately 10% of mitigation rice will be fallow per year, adding an additional 200 acres of foraging habitat. Given that there are 6,000 acres of good Swainson's hawk foraging habitat in the proposed City of Sacramento development area that would be lost, and 950 acres of currently usable foraging habitat would be preserved outside the development zone (for a total of 6,950 currently existing, suitable acres), the net loss of Swainson's hawk foraging habitat in City's development/preserve area would be 86% (6000/6950).

O4-15

Sutter County. The Sutter County plan area contains 2,800 acres of good quality Swainson's hawk foraging habitat. Sutter County proposes to develop approximately 7,500 acres, and set aside 3,750 acres of mitigation land outside their development zone. Of this, approximately 1,875 acres will be retained in rice, 935 acres will be restored to marsh habitat, and 935 acres will be managed as upland habitat. Approximately 25% of the upland habitat will be grassland/ woodland associated with the restored marsh, reducing the mitigation land available for managed Swainson's hawk foraging habitat (appropriate cropland) to 700 acres, plus 190 acres of fallow rice fields. Given that there are 2,800 acres of good Swainson's hawk foraging habitat in the proposed Sutter County development area that would be lost, and 890 acres of currently usable foraging habitat would be preserved (for a total of 3,690 existing suitable acres), the net loss of Swainson's hawk foraging habitat would be 76% (2800/3690).

O4-16

Metropolitan Air Park. The Metropolitan Air Park (MAP) project area includes 550 acres of good quality Swainson's hawk foraging habitat. MAP intends to develop 2,000 acres and will mitigate by protecting 1,000 acres of habitat outside the development zone. About 500 acres will be set aside as rice fields, and 250 acres will be restored marsh habitat. About 25% of the remaining 250 acres of upland habitat will be grassland/woodland associated with the restored marsh, resulting in approximately 190 acres available for managed Swainson's hawk foraging habitat, plus 50 acres of fallow rice acreage. Given that 550 acres of good Swainson's hawk foraging habitat in the proposed MAP development area would be lost, and 240 acres of currently usable forage would be set aside (for a total of 790 existing suitable acres), the net loss of usable Swainson's hawk foraging habitat is 70% (550/790).

O4-17

Overall, activities associated with both Natomas Basin HCPs would result in the loss of 9,350 acres of suitable Swainson's hawk foraging habitat, and protect 2,080 acres of habitat that currently exists, constituting an 82% reduction of suitable foraging habitat (9,350/11,430). In addition, the 9,350 acres of Swainson's hawk foraging habitat that will be lost in the development zones represent 45% of the available foraging habitat that now exists in the Basin (described below). With this extent of foraging habitat loss, a decline in the nesting population would be expected. Due to the location of the nesting population and existing and planned

O4-18

development, and assuming all other factors remain stable, our conservative estimate suggests that this amount of habitat loss will likely result in a decline of the Natomas Basin Swainson's hawk population of at least 25%.

O4-18

Predicted Basin-wide Habitat Reduction

Using similar logic and ratios provided for under the existing HCPs, the TAC also calculated a predicted Basin-wide loss of habitat assuming development would continue outside of the existing HCP areas. The TAC found that the Basin landowners provided approximately 21,000 acres of usable foraging habitat per year for Swainson's hawks between 1993 and 2000. Approximately 21,000 acres of rice and orchards, and an additional 4,000 acres of upland crops such as corn, safflower, and melons were excluded from the total usable acreage because these cover types provide little or no foraging habitat value for Swainson's hawks. The total useable acreage is a conservative estimate, as low-value upland crops are used to some extent by Swainson's hawks, and may be rotated into higher value crops depending on market influences.

Using the 0.5:1 habitat compensation ratio, of the 53,500 acres in the Basin, approximately 18,000 acres would be left in habitat/open space. Of that, 9,000 acres would be left in rice, 10% of which we assume will be fallow each year consistent with the above analysis. Of the 9,000 acres not in rice, 4,500 acres will be restored to marsh and 4500 acres will be designated as upland reserves. An estimated 25% of the upland reserves would be grasslands and woodlands associated with the restored marsh habitat, which would provide only marginal foraging habitat value for Swainson's hawks. Thus, along with 900 acres of fallow rice, a total of 4,275 acres would be available to foraging Swainson's hawks, constituting an 80% overall reduction of suitable foraging habitat in the Basin.

O4-19

Given the conservative assumptions that, 1) no foraging habitat is lost outside the Basin, 2) no Swainson's hawks outside the Basin rely on in-Basin foraging habitat, and 3) all mitigation land will be in-Basin, an 80% reduction of Swainson's hawk foraging habitat in the Basin would likely result in a 30 to 50% decline in the Basin's nesting population. In fact, habitat outside the Basin will decline as a result of other land use changes, some mitigation habitat obtained for the Natomas HCPs will likely occur outside the Basin, and at least 5 Swainson's hawk territories will potentially be lost due to direct development impacts. Thus, the actual decline in the nesting population would likely exceed 50%.

In summary, the revised Plan and EIR/EIS fail to accurately characterize the extent of foraging habitat loss and the potential for take as a result of Plan implementation or the cumulative loss from other planned, proposed, or predicted activities in the Basin. It is clear that a compensation ratio of 0.5 to 1, and a management requirement that allows for only a small proportion of mitigation preserves to provide high value foraging habitat, will result in substantial losses of Swainson's hawk foraging habitat throughout the Basin. Without adequate foraging habitat, the nesting population will find it exceedingly difficult to successfully reproduce and over time will abandon traditional nesting territories. Clearly, our determination is in sharp contrast to the determination in the revised Plan and EIR/EIS that suggests that Plan implementation would have no affect on the Swainson's hawk.

O4-20

Sustaining the Target Population in Perpetuity

O4-21 Because the revised Plan and EIR/EIS consider Plan implementation to have no affect on the Swainson's hawk, they also fail to provide a management strategy that adequately provides for long-term sustainability of a target population. Initially, using information from the habitat analysis, levels of take should be accurately described and a target population should be identified. Next, a management strategy should be developed that indicates how the target population will be managed over time to assure sustainability.

O4-22 Currently described management consists of providing relatively small areas of suitable habitat within preserves and assumes (without any indication of certainty) long-term preservation of certain areas of the Basin (as Swainson's hawk foraging habitat), such as the lands surrounding the Sacramento International Airport and the conceptual 1-mile Swainson's hawk zone along the Sacramento River. Preserve requirements focus primarily on giant garter snake habitat and other wetland habitats. The amount of land managed for Swainson's hawk is dramatically insufficient to provide for long-term sustainability of the population, which violates the intent, principles, and guidance provided under Section 10 of the federal Endangered Species Act.

O4-23 In order to successfully maintain this population over the long-term, a management strategy should be prepared and implemented that clearly describes how habitat throughout the Basin and the integrity of target nesting territories will be maintained.

RECOMMENDATIONS

The TAC recommends the following to more fully address the effects of Plan implementation on the Swainson's hawk and to provide mitigation sufficient to sustain a target population over the long term.

O4-24 • Revisit and revise the 0.5:1 habitat compensation ratio. This ratio is inconsistent with California Department of Fish and Game guidelines and other regional HCPs in the Central Valley. This alone would result in a two-thirds reduction in overall landbase in the Natomas Basin available for conservation. There is little chance of sustaining Swainson's hawk populations or other biological resources in the Natomas Basin by compensating at this level.

O4-25 • Revisit and revise the site-specific habitat ratios for preserves. Effective management of Swainson's hawk populations will require a greater proportion of mitigation sites retained as suitable upland habitats.

O4-26 • Conduct a more thorough analysis of the effects of Plan implementation on the Swainson's hawk. Identify levels of impact, determine level of take, and identify a target population for long-term conservation.

O4-27 • Establish commitments from the local jurisdictions and landowners to retain suitable habitat within the 1 mile Swainson's hawk zone in perpetuity, and limit preserve management to upland crops in that zone.

O4-28 • Focus conservation efforts for Swainson's hawk on lands west of the I-5/State Route 99

O4-28 corridor to make foraging areas more easily accessible to the nesting population, maximizing foraging efficiency and use.

O4-29 • Increase minimum preserve size to 1,000 acres, and provide for adequate acreage of suitable upland cover types. Large agricultural tracts allow for maximum foraging efficiency, as well as reducing human disturbance-related avoidance in the species.

O4-30 The TAC has identified several fundamental issues related to the long-term sustainability of a Swainson's hawk population in the Natomas Basin. Implementation of the revised Plan will likely result in substantial habitat losses in the Basin followed by abandonment of nesting territories and a significant reduction in the Natomas Basin nesting population.

We appreciate the opportunity to provide these comments and hope the revised Plan can be updated to reflect our concerns. If you have any questions concerning our comments or if the TAC can be of any assistance, please contact:

Michael Bradbury
3251 S Street
Sacramento, CA 95816
(916) 227-7527

or

James Estep
2600 V Street
Sacramento, CA 95816
(916) 737-3000

Sincerely,

Michael Bradbury
Swainson's Hawk Technical Advisory Committee

1084

Draft Natomas Basin Habitat Conservation Plan and Draft EIS/EIR

Public Information Workshops and Open House

☐ Monday, September 23 (4:00-6:00 pm)
☒ Monday, September 23 (7:00-9:00 pm)
☐ Wednesday, September 25 (4:00-6:00 pm)
☐ Wednesday, September 25 (7:00-9:00 pm)

Please fill out the following so we can be sure to keep you on our mailing list and to document th author of comments received. Thank you.

Name: CHRIS CHADDOCK

Address: P.O. BOX 969 ELVERTA, CA 95626

Organization: SELF

Phone: 916-768-0158

I-1 *Please provide us with your written comments on the Draft HCP or EIR/EIS.*

ES-3 STUDY AREA SHOULD INCLUDE ALL AREAS DISTURBED AS IN RD-1000 DISCHARGE EAST OF NATOMAS BASIN AS THERE FED DISCHARGE PERMIT LETS THEM DUMP TOXINS FROM AG LAND AND RUN OFF FROM RESIDENTIAL & COMMERCIAL LANDS INTO STEELE CREEK WHICH BACKS UP AND ONTO ESSENCIAL & CRITICAL HABITA VERNAL POOLS, GIANT GARTER SNAKE HABITAT, SWAINSON'S HAWK FORAGING HABITAT, BURROWING OWL AND OTHER IDENTIFIED ENDANGER SPECIES FROM CALIF ENDGY DOCKETS (92 AFC-2), 01 AFC-1 (EBSCO), FOSTER WHEELER ENV. CORP.

THERE FOR MITIGATION SHOULD BE SO OUTSIDE OF NATOMAS BASIN & AREAS SUCH AS AREA SOUTH OF ELVERTA RD & NORTH OF ELK HORN BLVD EAST OF BASIN

OVER

Written Comments are due on October 28, 2002

FIELD SUPERVISOR
U.S. FISH AND WILDLIFE SERVICE
2800 COTTAGE WAY W-2605
SACRAMENTO, CA 95825-1846
(916) 414-6711 FAX

SIGNATURE: Chris Chaddock

(Use back of form if you would like to provide more information)

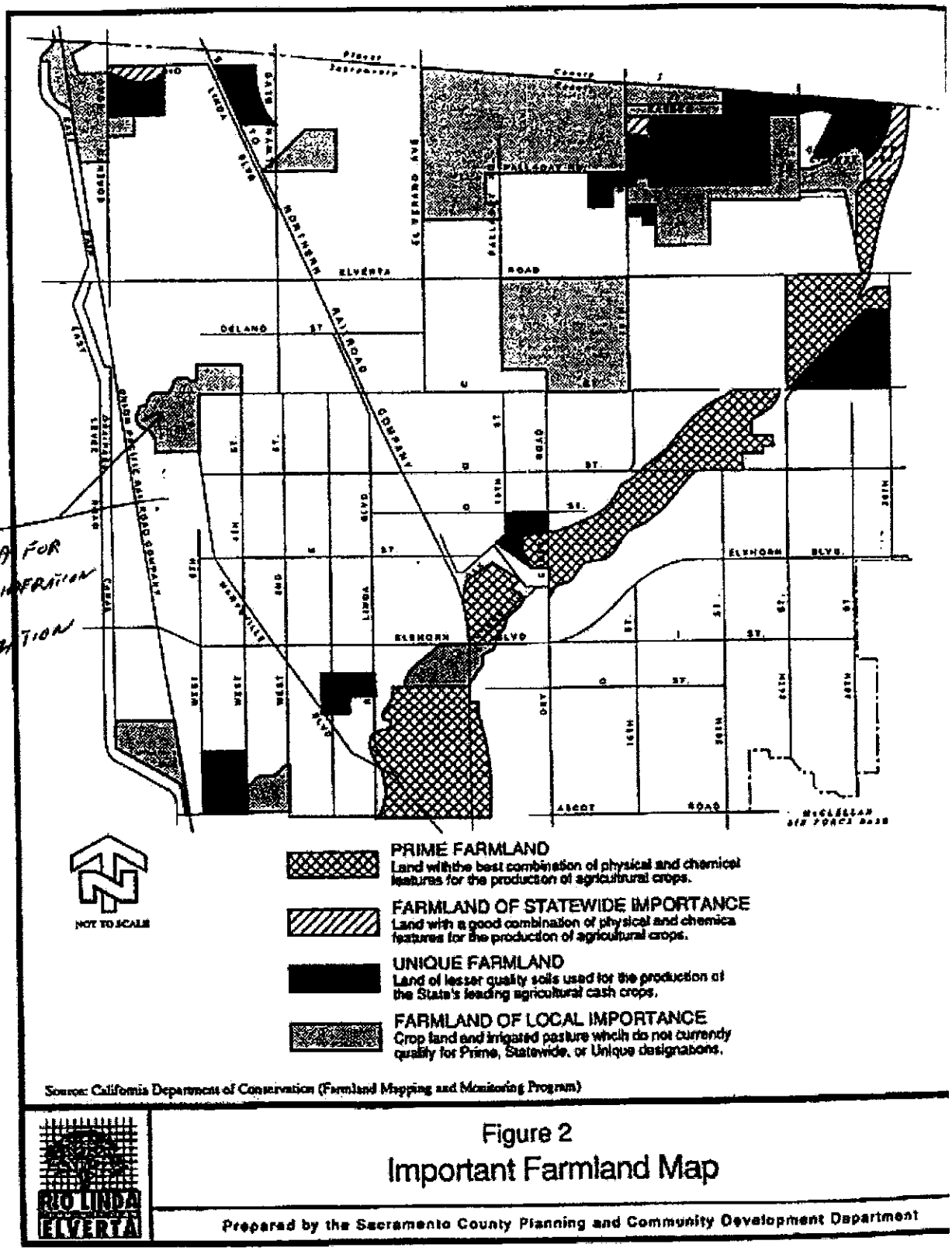
I-1 AS THE 90 AR. FORMER POWER PLANT SITE IS FOR SALE AND PERMANENT FARM LAND/WETLANDS OWNED BY JOHN TAYLOR AND OTHERS ARE WITHIN THE 1 MILE BOUNDARY FIG #1.3

I-2 HOW WILL 4.3 RD-1000 PREVIOUS REQUIREMENT TO HOLD RUN OFF AFTER TOXIN APPLICATION FOR 3 WEEKS OR LONGER IF IT EXCEEDS FED DISCHARGE STANDARDS BE MET, WHO WILL HAVE MONITORING REQ. AND HOW WILL RD-1000 TREAT CONSTANT CONTAMINATION FRO. RESIDENTIAL & COMMERCIAL RUN OFF?

I-3 4.4 WHAT TYPE OF MITIGATION FOR LOSS OF WETLANDS IN STEELHEAD CREEK AND ITS FED. TRIBUTARIES IF REDUCED PUMPING IN TO STEELHEAD CREEK AT EAST PUMP STATION BETWE ELK HORN BLVD. AND ELVERTA RD. OCCURIES?

I-4 WHAT TYPE OF MITIGATION FOR POSSIBLE EMERGENCY PUMPING FROM NATOMAS BASIN ONTO PRIVATE PROPERTY?

304


AREA FOR CONSERVATION FOR MITIGATION
NOT TO SCALE
PRIME FARMLAND
Land with the best combination of physical and chemical features for the production of agricultural crops.
FARMLAND OF STATEWIDE IMPORTANCE
Land with a good combination of physical and chemica features for the production of agricultural crops.
UNIQUE FARMLAND
Land of lesser quality soils used for the production of the State's leading agricultural cash crops.
FARMLAND OF LOCAL IMPORTANCE
Crop land and irrigated pasture which do not currently qualify for Prime, Statewide, or Unique designations.
Source: California Department of Conservation (Farmland Mapping and Monitoring Program)
RIO LINDA
ELVERTA
Figure 2
Important Farmland Map
Prepared by the Sacramento County Planning and Community Development Department

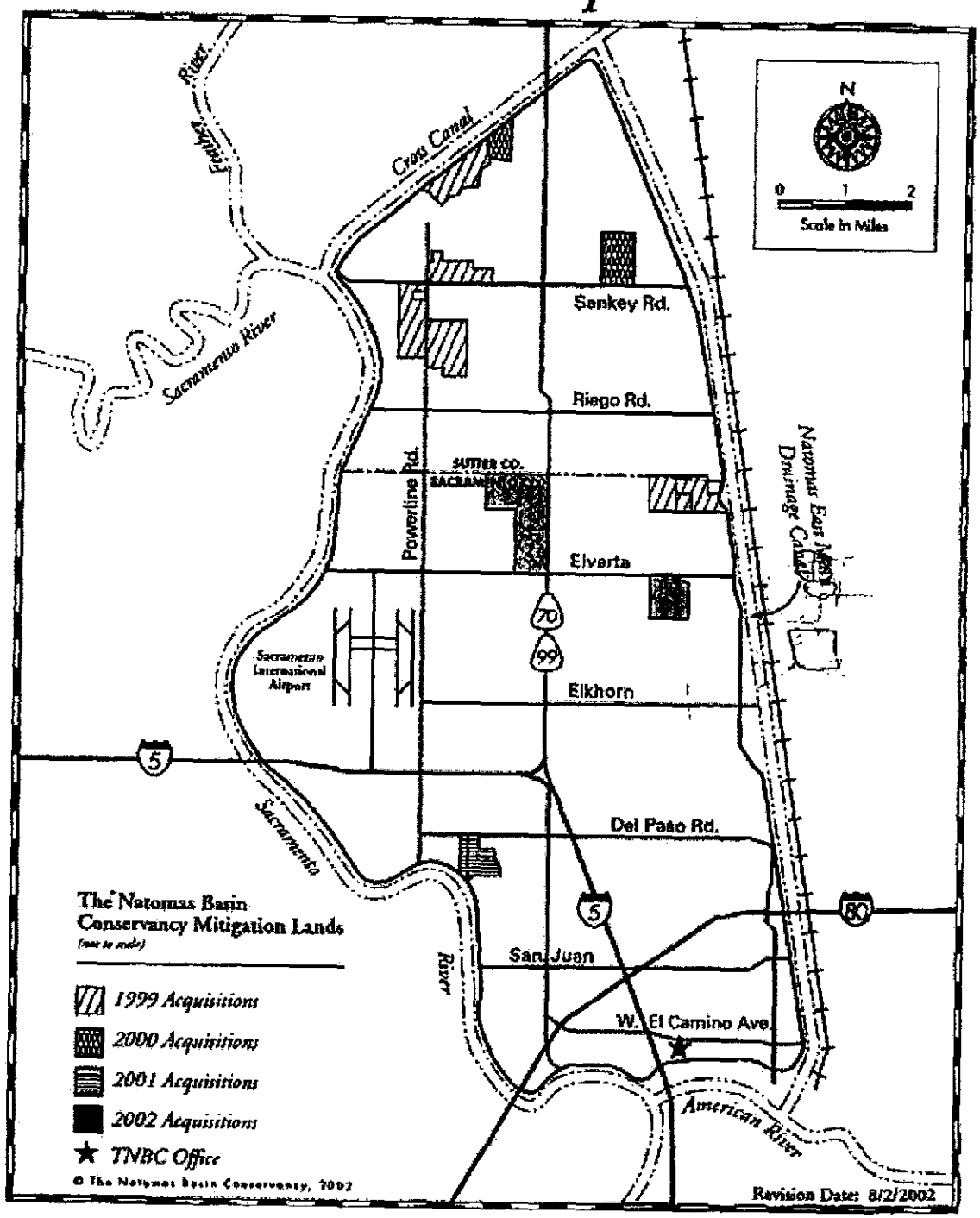
FOSTER WHEELER ENVIRONMENTAL CORP.
OLD SEPCO PROJECT 92 AFC-2 (C.E.C.)
NEW RLEPP 01 AFC-1 C.E.C.)
PEND PROJECT 8/02

2 of 4

THE NATOMAS BASIN CONSERVANCY

2002

Base Map



404

THE DIEPENBROCK LAW FIRM
A PROFESSIONAL CORPORATION

JOHN V. "JACK" DIEPENBROCK
KAREN L. DIEPENBROCK
KEITH W. McBRIDE
BRADLEY J. ELKIN
EILEEN M. DIEPENBROCK
MARK D. HARRISON
GENE K. CHEEVER
MICHAEL V. BRADY
LAWRENCE B. GARCIA
SUSAN E. KIRKGAARD

400 CAPITOL MALL, SUITE 1800
SACRAMENTO, CA 95814
(916) 446-4469
FACSIMILE
(916) 446-4535
E-MAIL
KLD@diepenbrock.com

MATTHEW L. EMRICK
CHRIS A. McCANDLESS
PATRICK A. SOUURI
JEFFREY K. DORSO
JOANIE M. DYBACH
JEANINE C. BOYERS

R. JAMES DIEPENBROCK
(1929-2002)

December 5, 2002

Via Facsimile – (916) 414-6713

U.S. Fish & Wildlife Service
Attn: Ms. Cay Goude
2800 Cottage Way
Sacramento, CA 95825

Re: Draft Natomas Basin Habitat Conservation Plan
Draft Environmental Impact Report/Environmental Impact Statement

Dear Ms. Goude:

Our office represents the Tsakopoulos Family Trust with regard to approximately 450 acres (the "Property") within the North Natomas Community Plan area, south of Del Paso Road and west of El Centro Road. The Natomas West Drainage Canal forms the western boundary of the Property, including the area commonly known as "Fisherman's Lake".

We have the following comments on the Draft Natomas Basin Habitat Conservation Plan (the "Draft NBHCP") and the Draft Environmental Impact Report/Environmental Impact Statement (the "Draft EIR/EIS"). From time to time I will refer collectively to the Draft NBHCP and the Draft EIR/EIS as the "Documents".

1. Technical Correction.

I2-1 In various places in the Documents, it is stated that the North Natomas Community Plan created a 250 foot buffer along the east side of Fisherman's Lake. In fact, what the North Natomas Community Plan says on page 59 is that the 200 foot (not 250 foot) buffer is an **agricultural buffer** located "along the west side of the plan area". This **agricultural buffer** can be used for

"pedestrian and bikeways, linear parks and open space, drainage canals or detention basins, irrigation canals, public roads and maintenance roads." See pages 58 and 59 of the North Natomas Community Plan. In the May 10, 2001 Agreement to Settle Litigation (the "Settlement Agreement"), the City of Sacramento agreed to initiate an amendment to the 1999 North Natomas Financing Plan to provide for the acquisition of an additional 50 foot buffer.

We would appreciate your amending all references that state that the North Natomas Community Plan itself created a 250 foot buffer. I enclose a copy of City Attorney William P. Carnazzo's May 30, 2002 memorandum regarding the width and location of the agricultural buffer in this location, which we consider definitive on this topic.

I2-1

We would also appreciate a specific reference acknowledging that an outfall structure from an appropriate location on our client's Property into the West Drainage Canal is contemplated and not objectionable. This is a critical point as is being certain the outfall can be built during the construction season.

I2-2

Finally, at page VII-15 of the Draft NBHCP, please correct the reference suggesting that the buffer is between Fisherman's Lake and urbanized uses. The buffer begins at the plan border.

I2-3

2. Riparian Habitat.

In the documents there are various references to some 23 acres of riparian habitat along the eastern edge of Fisherman's Lake. Our client's consultant, Mr. Jim Stewart of ECORP Consulting, has estimated the riparian habitat adjacent to our client's property comprises approximately 16 acres. This riparian habitat is bordered on the east by the RD 1000 maintenance road. We assume here that in identifying 23 acres of riparian habitat along the City's side of Fisherman's Lake that "Fisherman's Lake" includes the portions of Fisherman's Lake north of Del Paso Road up to the junction with the channelized portion of the West Drainage Canal.

I2-4

Please correct the Documents to correctly state the amount of riparian habitat located next to Fisherman's Lake on our client's Property.

3. Buffer Increase.

I2-5 There are various references in the Documents to increasing the size of the buffer adjacent to Fisherman's Lake from 250 feet to 800 feet. Not all of the references are accurate. In the Settlement Agreement, the City of Sacramento agreed to initiate an amendment to the North Natomas Community Plan to consider whether the buffer should be increased from 250 feet to 800 feet. That process has not yet occurred and the City Council has not yet made any decision. We would appreciate your correcting the Documents by referring to the exact language in the Settlement Agreement. We also want to be sure that all parties understand that the width of the buffer may or may not be increased, depending on the City Council decision. The analysis in the Documents should not depend on the buffer increasing in width.

4. RD-1000 Ownership.

I2-6 At various places in the Documents, there are references to the land that is owned by RD 1000 in and around Fisherman's Lake. We would appreciate the Documents being corrected to state that RD 1000 has an easement on portions of the land along the east side of Fisherman's Lake. The easement was granted for flood control purposes and all uses not inconsistent with flood control were reserved to the Tsakopoulos Family.

5. Fisherman's Lake is Part of a Flood Control System and Is Not a Habitat Preserve.

I2-7 Fisherman's Lake and surrounding land owned by RD 1000 (and the easement owned by RD 1000) are part of a major flood control system owned and operated by RD 1000 and are specifically not a habitat or nature preserve. We think this is an important point which should be specifically identified in the Documents.

6. Expansion of Buffer.

I2-8 While we respectfully acknowledge that opinions vary on this topic, we do want to note that in our view, expansion of the buffer area to 800 feet on the east side will do little to enhance habitat for the Giant Garter Snake in that the added land would not be riparian upland habitat or other area likely to enhance habitat values for a primarily aquatic creature. The primary basking areas are on the west side of Fisherman's Lake, and, as part of the Settlement

I2-8 Agreement, they are being enhanced by planting of native grasses and other appropriate vegetation.

I2-9 As to the Swainson's Hawk, again, we do not believe that increasing the buffer from 250 feet to 800 feet will provide any benefit to the Swainson's Hawk commensurate with the enormous cost of increasing the buffer to this width, which cost our client estimates at over $6 million.

I2-10 The landowners within the North Natomas Community Plan have already funded the acquisition of significant additional habitat land on the west side of Fisherman's Lake and under the Settlement Agreement, there will be not less than 400 acres of land acquired next to Fisherman's Lake. We respectfully suggest that these added areas will provide a far more attractive area for hawk foraging than an increase of buffer at enormous cost in an area immediately adjacent to residential development. We also note that as part of the enhancement of the riparian habitat along the west side of Fisherman's Lake, RD 1000 has agreed to the planting of a certain number of trees appropriate as nesting sites for Swainson's Hawk. When these trees reach sufficient size and maturity, we hope Swainson's Hawks will find this location next to a substantial foraging area suitable for nesting.

7. Additional Covered Species.

I2-11 The Draft NBHCP suggests that additional Covered Species may experience habitat loss under the Plan. We ask that you delete the references to adding potential new species to the Basin. See, for example, the reference at IV-14 of the Draft NBHCP.

8. Control of Water Supply and Availability.

I2-12 We note a reference on page IV-28 of the draft NBHCP stating that "management activities can include: (1) control of water supply and availability ...". Does this mean that water supply and availability to properties within the North Natomas Community Plan area can be restricted or otherwise controlled? This would not be acceptable to landowners and would be a matter of grave concern. We would appreciate clarification of this important point.

9. Correction of Figures 7, 10 and 13.

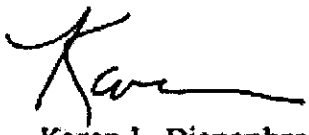
I2-13 In Figure 7 (Flood Prone Areas), we suggest clarification as the aerial topos of our client's Property indicates that it is not in the 100 year floodplain.

I2-14 In Figure 10 (1997 Habitat Types Map), what is the origin of this map? The Property appears to be identified as "riparian", when it certainly is not. In Figure 11, what is meant by "Ruderal"? Finally, in Figure 13, an active hawk's nest is shown on our client's Property at a location where there are no trees. This needs to be corrected.

Thank you for the opportunity to comment and for your substantial efforts to create a Habitat Conservation Plan acceptable to all.

Very truly yours,

THE DIEPENBROCK LAW FIRM

By 
Karen L. Diepenbrock

KLD/jmg

interoffice
MEMORANDUM

to: Carol Shearly, Natomas ManagerThomas Lee, Deputy City Manager

cc: Karen Diepenbrock, Attorney at Law

from: William P. Carnazzo

re: Width/Location of Agricultural Buffer on Westerly Edge of the NNCP Area

date: May 30, 2002

I have completed review of the relevant North Natomas documents possibly containing references to the agricultural buffer along the westerly edge of the NNCP area–and in particular, along that portion of the West Drainage Canal known as "Fisherman's Lake".

My review included the following documents:
1. Draft EIR, North Natomas Comprehensive Drainage Plan (December, 1996).
2. Final EIR, North Natomas Comprehensive Drainage Plan (March, 1997).
3. 1986 North Natomas Community Plan.
4. Draft EIR, 1986 North Natomas Community Plan.
5. Final EIR, 1986 North Natomas Community Plan.
6. Findings and Statements of Overriding Considerations, 1986 North Natomas Community Plan.
7. 1994 North Natomas Community Plan.
8. Supplement to the 1986 North Natomas EIR.
9. Findings and Statements of Overriding Considerations, 1994 North Natomas Community Plan.
10. Mitigation Monitoring Plan, 1994 North Natomas Community Plan.
11. Natomas Basin HCP (1997).
12. Implementation Agreement, Natomas Basin HCP (1997).
13. 1994 North Natomas Finance Plan.
14. Nexus Study, 1994 North Natomas Finance Plan.
15. 1999 North Natomas Finance Plan Update.
16. Nexus Study, 1997 North Natomas Finance Plan Update.
17. 1986 North Natomas Settlement Agreement.
18. 2001 North Natomas Settlement Agreement.

from the desk of...
[redacted]
Chief Assistant City Attorney
City Attorney's Office
980 Ninth Street, Suite 1000
Sacramento, CA 95814

(916) 264-5346
Fax: (916) 264-7455

The results of my inquiry are set forth below. I have attached a copy of all pages excerpted from the various documents.

A. **Documents having no relevant references to the buffer**. The following documents contain no relevant reference to the buffer:

1. The Draft and Final EIRs for the Comprehensive Drainage Project.
2. The Natomas Basin HCP and Implementation Agreement.
3. The 1994 North Natomas Finance Plan and Nexus Study.
4. The 1999 North Natomas Finance Plan Nexus Study.
5. The 1985 North Natomas Settlement Agreement.

B. **Documents containing references to the location and/or width of the buffer**.

1. **1986 NNCP.**
   a. Figure 3. This map shows the westerly buffer located to the east of Fisherman's Lake. The map is not helpful as it is a schematic of poor quality.
   b. Page 12, Table 2. The "greenbelt" is listed as 770 net acres. The pertinent footnote states: "Refers to greenbelt abutting agriculture on the norther and western borders of the incorporated study area."
   c. Page 59. A policy statement is made: "To create a strong edge between the community and adjacent areas of permanent agriculture, develop a greenbelt along the norther and wester boundaries of the incorporated portion of the planning area."
   d. Page 103. The page 59 policy statement is repeated. Another policy statement is made: "The greenbelt will average in width 500 feet to separate residential and agricultural uses."
   e. Page 116. A statement is made regarding the source of the 500 foot width: "According to information from the County Agricultural Commissioner, a buffer of 500 feet in width will meet this objective."

2. **1986 NNCP Draft EIR.**
   a. Exhibit A-14. This is a spreadsheet showing the greenbelt area associated with a variety of alternatives and positions. The relevant footnote states: "Refers to greenbelt abutting agriculture on the norther and western borders of the incorporated study area."
   b. Exhibit A-20. Another spreadsheet depicting greenbelt area associated with 5 alternatives. The relevant footnote is the same as the previously mentioned note.
   c. Exhibit A-21. This is a land use map for Alternative A (no project),which shows a buffer on the east side of the westerly city boundary, in the vicinity of Fisherman's Lake.
   d. Page D-53. There is a discussion of the relative benefits of buffers

and their management.

e. Page D-57. There is a discussion of the need for buffers.

f. Page H-48. There is a discussion of buffers in general, and a reference to them as "land abutting agriculture on the northern and western borders of the incorporated study area."

g. Page L-78. There is a statement that: "Criteria for determining the width and use limitations of the buffer area include compatible low intensity, uninhabited uses such as open space/recreation or public utility uses."

3. **1986 NNCP Final EIR.**
   a. Page 221. There is a general discussion of the buffers in a response to a comment.
4. **1986 Findings and Statement of Overriding Considerations.**
   a. Page 105. Open space buffers are proposed as a mitigation measure "where the Study Area is contiguous to agricultural lands."
   b. Page 183. The following statement is made: "The buffer area should be wide enough to effectively separate the conflicting land uses and should only contain compatible non-agricultural uses. According to information from the County Agricultural Commissioner, a buffer of 500 feet in width will meet this objective. Inclusion of drainage canals, freeways, arterial streets, utility corridors, etc., could lower the net acreage that would be needed in the buffer areas."
5. **1994 NNCP.**
   a. Page 10. Table 1 contains a reference to "Ag and Fwy Buffers", listing the acreage as 320.9. Regarding the agricultural buffers, footnote 5 states: "Refers to ag buffers on the N and W borders of the study, but not ag land."
   b. Page 11. Table 2 is similar to Table 1, with the same footnote.
   c. Page 52. There is a statement that "Open Space includes agricultural buffer areas along the north and west boundaries of the plan area."
   d. Page 53. Table 13 shows Agricultural Buffer at 195.9 acres. Footnote 5 states: "Includes acreage along west and north boundaries of the plan used to buffer the agricultural uses from the urban uses."
   e. Page 55. Figure 14 depicts a buffer along the westerly edge of the NNCP area, of undetermined width. Although the map is a schematic, the buffer appears to be located inside of the city limit, east of the West Canal.
   f. Page 58. There is a policy statement regarding creation of linear open space to buffer agricultural lands.
   g. Page 59. There is a statement that: "The buffer along the west side of the plan area is 200 feet wide and allows the same uses as the

northern buffer."

h. Page 82. There are the following statements: "Develop a greenbelt along the northern and western boundaries of the planning area.."; and "The greenbelt will be a minimum of 250 feet in width, not including the Elkhorn Boulevard right of way and irrigation canals and maintenance roads on the north side of Elkhorn, which brings the total width to 500+/- feet." **Observation: this statement is ambiguous. It is not possible to tell whether the 250 feet width refers only to the northern buffer or is intended to refer to both the northern buffer and the western buffer.**

5. **Supplement to the 1986 NNCP EIR.**
   i. Page 2.0-5. Mention is made of the use of the buffer as open space.
   j. Appendix A, page 10. This is a chart showing the buffer to be 320.9 acres (net), with a footnote similar to those quoted above.
   k. Appendix A, page 55. Figure 14 depicts the buffer as being along the westerly city boundary near Fisherman's Lake. It is shown inside the city limit, to the east of the West Canal.
   l. Appendix A, page 58. The buffer is described as 200 feet in width.
   m. Appendix A, page 821. The same ambiguous statement is made (see 4.h. above).
6. **Final Supplement to the 1986 NNCP EIR.**
   a. Page 2. There is a statement in a comment letter that "Many communities have considered 300 feet as a sufficient buffer...."
   b. "Letter 2." In a response to a letter from the Department of Conservation, the following statement is made: "The buffer along the west side of the plan area is 200 feet wide and allows the same uses as the northern buffer."

7. **1994 Findings and Statement of Overriding Considerations.**
   a. Page 13. The statement is made that "These measure require the use of a greenbelt along the northern and western boundaries of the Project area to create a strong edge between the community and adjacent areas of permanent agriculture. This greenbelt must be a minimum of 250 ft. in width, not including the Elkhorn Boulevard right-of-way." **[Observation: these two sentences, when taken together, are ambiguous. The first sentence relates to both buffers, and by itself is clear. The second sentence could be interpreted as applying only to the Elkhorn buffer, but could also mean that both buffers are to be 250 feet in width. This conflicts with previous statements that the west side buffer is to be 200 feet in width.]**

8. **1994 Mitigation Monitoring Plan.**

a. Page 2. The statements quoted in 7.a. above are repeated here.

9. **1993 Draft NNCP.** This draft plan was not adopted. The following statement appears on page 58: "The plan calls for an agricultural buffer along the north and west boundaries of the plan area. The north buffer along Elkhorn Boulevard includes a 250 foot wide strip of land along the south side of Elkhorn Boulevard, the 136 foot wide public right-of-way of Elkhorn Boulevard, and any maintenance road or irrigation canal on the north side of Elkhorn Boulevard....The buffer along the west side of theplan area is 200 feet wide and allows the same uses as the northern buffer."

10. **Land Use Map Attached to 1994 NNCP.** This map depicts the westerly buffer as a 38.8 acre strip commencing at the easterly edge of the West Drain. There is no explanation as to why it commences at that point, as opposed to the center of the canal which is the city boundary.

11. **1999 North Natomas Financing Plan.**
    a. Figures I-4 and IV-2. These figures show the "Ag and Freeway Buffers" as acquisitions under the "Public Facilities Land Acquisition Fee."
    b. Page IV-18. Agricultural buffers are named as part of the public land to be acquired under the Land Acquisition Program and Fees.
    c. Page V-1. In the introduction, buffers are named as being part of the land acquisition program.
    d. Page V-3. The statement is made that "Open space and land buffers are required throughout the area along the I-5 and I-80 freeways, as habitat buffers along Fisherman's Lake, as a buffer to agricultural land along the south side of Elkhorn Boulevard and open space along the western City limits. **[Observation: this statement is somewhat inaccurate in its depiction of the nature of the buffers.]**
    e. Page V-5, figure V-1. This map appears to depict the westerly buffer as beginning at the city limit line. However, the map is not intended to be precise; rather, it is illustrative only and relates to financing plan issues.
    f. Page V-6, Figure V-2. This chart includes 105.2 acres of agricultural buffer in the estimates of land acquisition cost.
    g. Page F-1, figure F-1. This chart includes 85.75 acres of agricultural buffer. There is no explanation of the acreage difference between this chart and Figure V-2.

11. **2001 HCP Litigation Settlement.** On page 12, the following statement is made: "City agrees to initiate (1) an amendment to the NNFP to provide for the acquisition of an expanded buffer of 250 feet (i.e., 50-foot increase

along the East side of Fisherman's Lake (to be consistent with the Mitigation Monitoring Plan for the North Natomas Community Plan)...."

C. **Conclusions.** Based on the above information, it is reasonable to conclude:

1. As to the location of the westerly buffer, virtually all text references specify that is to be located "along the westerly edge" of the plan area. The 1994 NNCP map places it at the easterly edge of the West Drain, without explanation. Other diagrams, although fuzzy and poorly drawn, appear to place the buffer at the westerly edge of the West Drain, again without explanation. The latter location does not appear reasonable, as it would amount to the city dictating land use outside of its jurisdictional boundary. The 1994 map conflicts with the uniform references found in the text of the various documents reviewed. The most logical location appears to be to the middle of the West Drain, since that is the city boundary and comports with the text references placing the buffer "along" the westerly edge of the plan area–which would be the city boundary.

2. As to the size of the westerly buffer, the ambiguities outlined above create an issue as to whether the buffer is 200 feet or 250 feet in width. While the settlement agreement appears to require processing of a plan amendment to settle the issue, the governing documents trump implementation documents if they conflict. The governing documents are the various editions of the community plan, where references to the westerly buffer width consistently specify 200 feet. The ambiguity found in the implementation documents (the findings and the MMP), which lump the Elkhorn and westerly buffers together at 250 feet each, stemmed from an erroneous reading of the community plan by staff and/or consultants.

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

December 5, 2002

Angelo Tsakopoulos
Tsakopoulos Investments
7423 Fair Oaks Blvd., Suite 10
Sacramento, Ca 95608

RE: Fisherman's Lake – Natomas Basin

Dear Mr. Tsakopoulos:

On a recent site walk conducted by you and ECORP staff on your property within Natomas Basin, we assessed the eastern shoreline of a portion of Fisherman's Lake. The existing RD1000 road was used to gain access to the lake edge.

I2-15 When assessing the extent of riparian habitat on the Tsakopoulos property, we were aware that the Draft Natomas Basin Habitat Conservation Plan (DNBHCP) referenced 23 acres of riparian habitat along the eastern edge of the lake. It appears that this acreage includes the margins of lake that extend beyond Del Paso Boulevard to the channelized portion of the West Drainage Canal. Preliminary assessment of the Tsakopoulos property has identified 16± acres of riparian habitat along the western edge of the site. The riparian habitat on the property is co-terminous with the shoreline of Fisherman's Lake and the RD 1000 road.

After review of the DNBHCP we have general comments on three issues:

I2-16
- The adaptive management provision as described on page I-37 of the DNBHCP should be further refined. Due to the dynamic and evolving characteristics of open space/habitat preserve areas, it is acknowledged that a static monitoring program would not adequately assess the functions and values of the habitat. However, it may not be appropriate to require the property owner to bear the burden of overseeing an ever-evolving management plan for an open space area that may be changing through influences unrelated to activities on the adjacent properties. It may be appropriate to establish limits of participation in a management plan by the Natomas Basin owners, which addresses conditions related to basin land use practices.

2260 Douglas Blvd., Suite 160
Roseville, California 95661
Tele: (916) 782-9100
Fax: (916) 782-9134

I2-17

- The controlled introduction of new species into an open space preserve, protected by conservation easements, is a biological sound approach to wildlife management and long-term viability of a species. However, it would be appropriate to implement a 'grandfather clause' that would ensure that the approved uses on property outside of the open space areas, not be unduly burdened by management practices that are modified as a result of the introduced species.

I2-18

- A main objective of a Habitat Conservation Plan (HCP) is to facilitate the recovery of a species. By participating in the HCP process, the Natomas Basin property owners are duty bound to comply with the provision of the plan, in addition to the terms and conditions of the various regulatory agency permits. However, modifications to flora and fauna within the open space preserve which may impede the recovery of a species which is not attributable (directly or indirectly) to land use practices within the basin should not be the responsibility of the property owners. A direct linkage between the property owners and recovery of the species must consider the source of the adverse impact and not hold the property owners accountable for recovery of a species by factors out of their immediate control.

If you have any questions, please call me at (916) 728-9100.

Sincerely,

Jim Stewart
President

DOWNEY BRAND SEYMOUR & ROHWER LLP
ATTORNEYS
555 CAPITOL MALL
10TH FLOOR
SACRAMENTO, CA 95814-4686
TELEPHONE (916) 444-0131
FAX (916) 441-4021

PATRICK G. MITCHELL
(916) 441-0131, X6319

Via Facsimile [(916) 566-3968] and United States Mail

December 2, 2002

Wayne White
Field Supervisor
United States Department of the Interior
Fish and Wildlife Service
2800 Cottage Way
W-2605
Sacramento, CA 95825

Re: Natomas Basin Habitat Conservation Plan and Draft EIR/EIS

Dear Mr. White:

On behalf of Reclamation District No. 1000 ("RD 1000") and Natomas Central Mutual Water Company ("Natomas Mutual") (collectively, the "Water Agencies"), I am writing to provide comments on the Natomas Basin Habitat Conservation Plan ("NBHCP") and its Draft Environmental Impact Report/Environmental Impact Statement ("Draft EIR/EIS").

To assist you in your review of these comments, we have separated our comments into sections. General comments that address several sections of the Notice of Availability dated August 16, 2002 ("NOA"), the NBHCP, and the Draft EIR/EIS are included in the main text of this letter. Specific comments that address more limited sections are included in Appendix A, which is incorporated by reference into this letter.

I. DISCUSSION

A. The Notice of Availability, the NBHCP, and the Draft EIR/EIS Misrepresent the Water Agencies' Current Participation in the NBHCP.

I3-1 The NOA, the NBHCP, and the Draft EIR/EIS consistently misrepresent the Water Agencies' participation in the NBHCP by suggesting that the Water Agencies have chosen not to participate in the NBHCP and that RD 1000 has

chosen not to be a co-lead agency for the Draft EIR/EIS. The NOA incorrectly states that "[a]t this time, RD 1000 and Natomas Mutual have chosen not to submit an application for an incidental take permit. They may decide to apply at a later time and commit to the terms of the Plan and through issuance of a permit by the USFWS, join as full permittees at a future date." [NOA at 4]. Similarly, the NBHCP and the Draft EIR/EIS both state that, "[i]n March 2002, the Boards of Directors of both Water Agencies elected not to continue participation in the joint HCP..." [NBHCP at I-8; Draft EIR/EIS at 1-9, 1-10, 1-21, 2-12, 4-12].

In fact, since the United States Fish and Wildlife Service ("USFWS") announced for the first time on January 4, 2002 that the USFWS would not provide coverage for incidental take resulting from pesticide use, the Water Agencies have consistently stated that they wish to remain as applicants, and that RD 1000 wishes to remain as a co-lead agency, to seek incidental take coverage for the Water Agencies' operations and maintenance activities. The Water Agencies have consistently expressed their request in the following documents:

(a) A letter dated January 10, 2002 from Pat Mitchell to you, in which the Water Agencies requested that the USFWS exercise its authority to provide, within the incidental take permits issued pursuant to the NBHCP, coverage for the Water Agencies' take resulting from pesticide use.

(b) A letter dated February 4, 2002 from Pat Mitchell to Bob Thomas and Larry Combs, in which the Water Agencies stated that they were not authorizing the City of Sacramento ("City") or Sutter County ("County") to modify the NBHCP in any manner that narrowed the Water Agencies' request for coverage for take resulting from both mechanical and pesticide related activities.

(c) A letter dated March 1, 2002 from Pat Mitchell to Bob Thomas and Larry Combs, in which the Water Agencies confirmed the substance of February 8, 2002 and February 12, 2002 telephone conversations with the City, County, and USFWS. Specifically, the Water Agencies confirmed that the Boards of both RD 1000 and Natomas Mutual had voted to pursue incidental take coverage for take resulting from both mechanical and pesticide related activities and to remain within the NBHCP.

(d) A letter dated June 5, 2002 from Patrick Mitchell to Cay Goude of the USFWS, providing additional material to support the Water Agencies' request for incidental take coverage for pesticide use.

(e) A letter dated October 8, 2002 from Wendy Anderson to Carol Shearly, correcting statements in Ms. Shearly's July 17, 2002 letter to the Water Agencies, which July 17, 2002 letter erroneously suggested that the Water Agencies had chosen to withdraw from the NBHCP. [The above five letters are incorporated herein by reference.]

As illustrated above, since January 4, 2002, the Water Agencies have repeatedly reasserted their intention to remain within the NBHCP and for RD 1000 to remain as a co-lead agency. Nonetheless, the City and County have proceeded with the NBHCP, modifying text specific to the Water Agencies despite the Water Agencies' objections [see letter from P. Mitchell to B. Thomas and L. Combs dated February 4, 2002]. These modifications will be addressed in more detail, below.[1] These modifications, and the references to the Water Agencies' alleged decision to withdraw from the NBHCP process, must be modified to accurately reflect the Water Agencies' full participation in the NBHCP. I3-1

B. **The NOA, the NBHCP, and the Draft EIR/EIS Misrepresent the USFWS' Authority to Provide the Water Agencies' Coverage for Incidental Take Resulting From Pesticide Use.**

I3-2 The NOA, the NBHCP, and the Draft EIR/EIS inaccurately state that the USFWS does not have the authority to provide coverage for incidental take resulting from pesticide use. [*See, e.g.*, NBHCP at 1-8 (stating that take coverage for pesticides and rodenticides is "prohibited or limited by the regional USFWS guidance policy (USFWS, *Inclusion of Pesticide and Herbicide Applications as a Covered Activity in and [sic] Endangered Species Act Section 10(a)(1)(B) Permit*, July 1998 ["July 1998 Region 2 Guidance Statement"])"].

In fact, as explained in the Water Agencies' January 11, 2002 letter to you, the July 1998 Region 2 Guidance Statement does *not* limit the USFWS' authority to provide the Water Agencies coverage for pesticide and rodenticide take. The July 1998 Region 2 Guidance Statement states:

> Effective immediately, pesticide and herbicide applications will not be considered for inclusion as a covered activity in future

[1] In addition, the NBHCP and the EIR/EIS fail to mention that the City is rejecting the Water Agencies from the NBHCP for the second time. [*See* NBHCP at I-21 to I-24]. In December of 1997, without the authorization of the Water Agencies the City restructured the NBHCP for the City's use only, leaving the Water Agencies to prepare a separate habitat conservation plan. In a letter dated December 1997, the Water Agencies identified fourteen problems with the City's version of the NBHCP. Seven of the fourteen items were substantive errors and reflected the City's failure to consult with, or respond to, RD 1000 and Natomas Mutual concerns. The City NBHCP was approved in late December 1997, ignoring the Water Agencies' comments.

> incidental take permits, *with the exception of those Habitat Conservation Plans (HCPs) that address this topic and that have already been submitted to the Fish and Wildlife Service with an official section 10(a)(1)(B) permit application.*
>
> July 1998 Region 2 Guidance Statement (emphasis added).

The NBHCP was submitted to the USFWS, along with an official 10(a)(1)(B) permit application *in December of 1996.* As specified in a letter from Pat Mitchell to the California Department of Fish and Game ("CDFG") and USFWS, RD 1000 and Natomas Mutual proposed to use the November 1997 Natomas Basin Habitat Conservation Plan ("1997 NBHCP") as the basis for their application. [*See* NBHCP at I-22 (stating that on December 1997, the Water Agencies submitted their separate Habitat Conservation Plan, Implementation Agreement, Incidental Take Permit Application, and 2081 application to the Service and to the CDFG); letter from P. Mitchell to D. Zezulak and W. Lehman dated September 8, 1998 (stating that, "My clients propose to use the November 1997 Natomas Basin HCP approved for the City of Sacramento on December 31, 1997...")]. The 1997 NBHCP includes RD 1000 and Natomas Mutual as Permittees (1997 NBHCP at IV-3,4), *and expressly includes herbicides, as well as fumigants for rodent control.* [See 1997 NBHCP at IV-15, 16]. Accordingly, a habitat conservation plan submitted prior to the date of the July 1998 Region 2 Guidance Statement includes coverage for RD 1000's and Natomas Mutual's use of pesticide use, which therefore should be grandfathered under the July 1998 Region 2 Guidance Statement.

Moreover, even if the 1998 Region 2 Guidance Statement applies to the Water Agencies request for coverage for pesticide take, the USFWS need not require that the Water Agencies provide more than the best scientific and commercial data available. The July 1998 Region 2 Guidance statement expressly provides that the USFWS may provide coverage for incidental take if an applicant "insists." [July 1998 Region 2 Guidance Statement]. Caselaw and the USFWS' regulations allow the USFWS to issue coverage based upon the best scientific and commercial data available. For instance, in *National Wildlife Federation v. Babbitt* (August 15, 2000), Judge Levy invalidated the USFWS' incidental take permits issued to the City of Sacramento pursuant to the 1997 NBHCP on the ground that the USFWS' issuance of the permits assumed the participation of entities that were not permittees. [*See National Wildlife Federation v. Babbitt* (2000) 128 F. Supp. 2d 1274, 1295]. Despite Judge Levy's invalidation of the permits on those grounds, Judge Levy upheld the USFWS' reliance upon the best scientific and commercial data, even if that data did not provide the USFWS with absolute certainty as to the 1997 NBHCP's effectiveness. Judge Levy wrote, "[t]he Service *is obligated by regulation* to 'develop its biological opinion based

upon the best scientific and commercial data available regardless of the 'sufficiency' of that data." [citing 51 Fed. Reg. 19926, 19951 (final rulemaking with respect to 50 C.F.R. § 402)]. [*National Wildlife Federation*, 128 F Supp. 2d at 1300]. Moreover, Judge Levy specifically stated that it would not be reasonable to require detailed quantitative information of impacts upon the Giant Garter Snake, in particular.

> Plaintiffs contention appears to be that the ESA required detailed quantitative information as to each of these factors [the Giant Garter Snake's baseline conditions and the effects of the HCP] prior to the issuance of a permit, but plaintiffs cite no authority for such a requirement, and such a requirement would not be reasonable. *For the Giant Garter Snake, for example, a reclusive species, it would be extraordinarily difficult to count the number of individual snakes, determine their habitat and habitat, and reach conclusions as to their genetic makeup and variability.* Instead the 1997 Biological Opinion makes certain assumptions about the species based upon potential loss of habitat, which is a reasonable approach.
>
> *National Wildlife Federation*, 128 F. Supp. 2d at 1296-1297 (emphases added)

Accordingly, the USFWS' position that it does not have the authority to issue the Water Agencies coverage for pesticide take holds the Water Agencies' pesticide use to a higher standard than all other activities covered by the NBHCP and thereby exceeds the USFWS' authority under the Endangered Species Act ("ESA") and caselaw. After a review of the existing scientific literature, the Water Agencies submitted to the USFWS a summary of all currently available scientific literature addressing the Water Agencies pesticide use's impacts upon the Giant Garter snake. [*See* June 5, 2002 letter from P. Mitchell to C. Goude]. This submission provided data that *exceeded* the level of detail for all other impacts analysis within the NBHCP. This submission has received no formal response from the USFWS despite the fact that it was submitted *more than six months ago*. Consequently, the NOA, the NBHCP, and the EIR/EIS must be modified to accurately reflect the USFWS' authority to issue incidental take coverage for pesticide use. I3-2

C. The NBHCP and the Draft EIR/EIS Misrepresent the "Management Plans."

I3-3 The references in the NBHCP and the EIR/EIS to the Water Agencies' submission of the management plans to the Natomas Basin Conservancy's ("NBC") Technical Advisory Committee ("TAC") for review and approval must be deleted. [*See, e.g.*, NBHCP at I-35 (stating that the Water Agencies will

present vegetation management plans to the NBHCP TAC on a three year basis for review and approval). *See also* V-27, V-31]. The Water Agencies never suggested that management plans be required, and, in fact, expressly rejected management plans when they were suggested by the USFWS for the first time in Spring of 2002. The management plans defeat the purpose of the Water Agencies' application for incidental take coverage and provide the Water Agencies with no certainty that their operations and maintenance activities will be covered, as the plans require the Water Agencies to obtain approval from the TAC every three years for the Water Agencies' operations and maintenance activities. RD 1000 will not cede its authority as a governmental entity to a non-elected TAC entity. All references to the management plans must be deleted.

I3-3

D. <u>The City, County, and USFWS Must Make The Changes Requested Above.</u>

I3-4

The NBHCP and the Draft EIR/EIS must be revised per the modifications requested above in Sections B and C. If, at a minimum the requirement for Management Plans is not deleted as discussed in Section C above, the NBHCP will not be usable by the Water Agencies.

There is no evidence that the City, Sutter, and the USFWS' mitigation strategy would be effective without the Water Agencies' systems and participation in the NBHCP. Although the NBHCP and Draft EIR/EIS purport to analyze the effectiveness of each Permittee's mitigation strategy independent of any other Permittee's mitigation strategy, the NBHCP and the Draft EIR/EIS never analyze whether the mitigation strategy would be effective without the Water Agencies' system of ditches and canals. [NBHCP at I-31 (explaining what would happen if one of the land use agencies were not to participate in the NBHCP but providing no analysis of what would happen if the Water Agencies were not to participate in the NBHCP)].

Although neither the NBHCP nor the Draft EIR/EIS analyze whether the NBHCP would be effective without the Water Agencies' participation, the NBHCP depends upon the Water Agencies' ditches and canals, and upon Natomas Mutual's water, to ensure that sufficient water is in the mitigation areas to support wetland habitat for the Giant Garter Snake and other wetland species, and to ensure connectivity among the wetland mitigation lands. [*See* NBHCP at IV-30 to 32; Draft EIR/EIS at 2-19 (stating that "[t]he combination of primary drainage channels (drainage channels anticipated to remain through the term of the ITPs), secondary drainage channels (that tend to remain unless affected by urban development), and irrigation channels provide connectivity between the existing habitat reserves"). *See also*, Draft EIR/EIS at 2-20, 2-21, 2-25, and 2-37)]. In fact, the NBHCP states that the NBC will consider converting wetland mitigation sites to upland mitigation sites if the NBC does not locate adequate alternative

water supplies to those of Natomas Mutual. [*See* NBHCP at IV-32]. Thus, despite Judge Levy's admonitions, the City, Sutter County, and the USFWS continue to rely upon entities that are not clearly participants within the NBHCP for the City's, Sutter County's, and the USFWS' mitigation strategy. [*See National Wildlife Federation*, 128 F. Supp. 2d at 1299, (stating that, "the record does not suggest that the Service considered whether the monitoring and adaptive management provisions of the regional Plan could be effective if the City is the sole permittee.")

I3-4

II. CONCLUSION

The Water Agencies look forward to working with the City, Sutter County, and the USFWS to resolve the concerns expressed herein and to process the requested modifications. Please call me if you have any questions.

Sincerely,

DOWNEY, BRAND, SEYMOUR & ROHWER LLP

Patrick Mitchell

cc: James N. Clifton (RD 1000)
Peter J. Hughes (Natomas Mutual)
John Mattox (CDFG)
Bill Carnazzo (City)
Carol Shearly (City)
Larry Combs (Sutter County)

Appendix A

Specific Comments

I3-5 1. NBHCP page 1-36. The NBHCP's explanation as to which "dredging" activities are not covered by the NBHCP is confusing and should be rewritten as follows: "Dredging. Except as necessary ~~provided for the Water Agencies' channel maintenance~~ for the Water Agencies' operations and maintenance activities, dredging is not a Covered Activity under the NBHCP and the NBHCP Permits."

I3-6 2. NBHCP page II-5. The definition of "Ponds/West Areas" includes "[w]etland/marsh areas including Pritchard's Lake and several isolated locations throughout the Natomas Basin." In fact, there is no Pritchard's Lake. Is this definition intended to refer to the North Drain or the P-6 Canal?

I3-7 3. NBHCP page II-6. What was the assumption regarding the width of the Class I canals?

I3-8 4. NBHCP page III-4. The first full paragraph on page III-4 stated that, "[t]he residual rice straw in the fields after harvesting is typically burned. This is incorrect. The burning of rice straw has largely been replaced by the tilling and/or flooding or rice straw.

I3-9 5. NBHCP page III-7 and III-8. These pages provide three different numbers for the acreage. Page III-7 identifies 1,512 acres as belonging to the "Airport" land use class, while Page III-8 identifies there being 2,800 acres under use by the airport and, alternatively, the airport facilities including 1,515 acres.

I3-10 7. Draft EIR/EIS page 2-43, Section 2.4.6.3. The last sentence of the first paragraph of Section 2.4.6.3 should be modified as follows: "RD 1000 and Natomas Mutual carry out these activities to provide agricultural water to irrigated lands, address public health and safety concerns, and to minimize damage to planted crops and other property from flooding."

I3-11 8. Draft EIR/EIS page 2-44, Section 2.4.6.3. The Water Agencies' request for law enforcement assistance paid for by land developers has been deleted and needs to be added.

I3-12 9. Draft EIR/EIS page 3-8, Section 3.3.3. The following sentence should be rewritten, "Irrigation water also includes return flows from rice fields, which is ~~conveyed to downstream users through the RD 1000 drainage system.~~ held within a "closed system" that re-uses the water within the basin without release to the Sacramento River. The closed system is maintained from April through August."

I3-13

10. Draft EIR/EIS page 3-8, Section 3.3.3. The following sentence should be rewritten. "~~Following the development of the federal Central Valley Project (CVP), Natomas Mutual entered into a contract with the bureau of Reclamation to establish water delivery requirements in a river system now substantially affected by the CVP. This "settlement contract" quantifies base supply diversions of 98,200 acre-feet per year and provides up to 22,000 acre-feet of CVP water per year.~~ The Natomas farming community began operations after installation of the river levees in 1916-1919. The landowners secured senior water rights. Nearly thirty years later, the Central Valley Project (CVP) was built and in 1946 Natomas Mutual entered into a contract with the Bureau of Reclamation for certain water supplies under a settlement contract. This settlement contract does not replace the amounts of water Natomas Mutual is entitled to divert under its pre-existing rights, licenses, and permits.

I3-14

11. Draft EIR/EIS page 3-8, Section 3.3.3. The second sentence in the second paragraph of Section 3.3.3 should be rewritten as follows. "Although t~~T~~he average historical diversions from these five plants is approximately 80,000 acre-feet per year~~.~~, Natomas Mutual delivers approximately 110,000 acre-feet on average. The "closed system" enables Natomas Mutual to re-use water, effectively reducing its diversions by an average of 30,000 acre feet per year. The State Water Resources Control Board has ruled that Natomas Mutual should be credited for that effort."

I3-15

12. Draft EIR/EIS page 3-9. Between the bulleted paragraph and the first full paragraph, insert, "Although the pumping facility descriptions above list localized areas for each plant, the closed system is so interconnected that it actually re-circulates water throughout the entire system."

I3-16

13. Draft EIR/EIS page 3-9. The first sentence of the first full paragraph should be revised as follows, "~~Recent improvements in the drainwater recirculation system have contributed to a substantial improvement in water management by providing a more flexible matching of supply and demand throughout Natomas Mutual's service area.~~ Conservation efforts begun in 1986 have contributed to long-term substantial improvements in the drain water system. The recirculation improvements have provided a more flexible matching of supply and demand and have reduced the impacts on the Sacramento River."

I3-17

14. Draft EIR/EIS page 3-9. The following sentence should be deleted from the third paragraph. "Natomas Mutual owns two small groundwater wells, producing less than 200 acre-feet per year to supplement surface water supplies."

I3-18

15. Draft EIR/EIS page 3-11. The third sentence of the first full paragraph should be modified as follows: "The drainage pattern of the Basin has been altered so that during the Spring and Summer months, agricultural

I3-18

runoff is pumped into the RD 1000 system of drains and recirculated until August. At that point, runoff is pumped into the ~~RD 1000 system of drains and into the~~ Sacramento River at several places."

I3-19

16. Draft EIR/EIS page 4-9. The second bulleted paragraph should be modified as follows: "Natomas Mutual pumping plant consolidation. Natomas Mutual operates three pumping plants along the Sacramento River, ~~and is currently studying the potential for consolidating these pumping stations into one unit and installing state-of-the-art fish screens. This project would likely include additional canal improvements along the western boundary of the Natomas Basin. Detailed engineering plans and environmental review of this project have not been initiated at this time.~~ and two pumping plants in the Cross Canal. Natomas has studied the consolidation of all five pumping plants into only two diversions from the Sacramento River, complete with state-of-the-art positive fish barriers. The consolidation project is beginning the final design stage and construction is slated for 2003-2005. CEQA compliance will be completed by 2003. The project will create improvements to habitat in the Cross Canal and some sections of the internal delivery system will also be modified to improve habitat and connectivity."

I3-20

17. Currently, the NBHCP and the Draft EIR/EIS are inconsistent as to the status of the Water Agencies with respect to the NBHCP. The Draft EIR/EIS equates "Permittees" and "Applicants." [*See, e.g.*, Draft EIR/EIS at 1-1 (stating that, "[t]he applicants seeking ITPs for covered activities within the Natomas Basin are referred to as permittees (see Section 2.1). However, the NBHCP identifies the Water Agencies as "Permittees" but not "Applicants." [NBHCP at I-24 (stating that, "[t]he Water Agencies continue to be represented in the HCP as a Permittee in the event they should choose at a future date to apply for Incidental Take Permits for the activities (excluding pesticides) authorized in the HCP and evaluated in the EIR/EIS.") *See also* NBHCP at I-33 (stating that "[t]he City of Sacramento, Sutter County and RD 1000 and the USFWS jointly will prepare a combined environmental impact report (EIR) and environmental impact statement (EIS) prior to approval of the NBHCP and ITPs.")].

12/05/02 02:08pm P. 001

Vicki

FAX

To: Field Supervisor
Fish and Wildlife Service, Sacramento Fish and Wildlife Office,
2800 Cottage Way, W-2605, Sacramento, Ca

Content: Comment on draft NBHCP

From: Kim Gegnon, Senior Wildlife Management student at Humboldt State University
kimagagnon@hotmail.com

Pages: 1-22

Comment on the 2002 draft Natomas Habitat Conservation Plan

By: Kim Gagnon, Current Senior at Humbodlt State University, Dept. of Wildlife Management, 944 F. St., Arcata, CA, 95521. kimagagnon@hotmail.com

I have created a list below, sectioned A-T, of different points I would like to make about the NBHCP, concerning Swainson's hawks (*Buteo swainsoni*). Each section is filled with concerns that I have about the draft NBHCP and with requests that I have for the writing of the final NBHCP. I hope that my concerns are considered and addressed when finalizing the NBHCP. Thank you so much for your time spent in reading my comments.

A)

NBHCP fails to address if and when an additional pre-construction survey will be done if the first survey happens to occur in between early September and early March, which is when Swainson's hawks are absent from the area due to migration.

NBHCP, V-1:
"Not less than 30 days or more than 6 months prior to commencement of construction activities on specific Authorized Development sites in the NBHCP 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."

In the Central Valley, Swainson's hawks arrive in late Feb and early March, 4-6 weeks earlier than at sites < 350 km away in NE CA. These hawks arrive earlier most likely because they migrate shorter distances from wintering sites in central Mexico (Woodbridge 1998). They depart the Central Valley in early Sept. and some depart early in Oct. Individuals then are absent from breeding grounds for 5-6 months in Central CA (England et al. 1997). Since 1997 it has been recorded that 30 individuals have been overwintering in the Central Valley (England et al. 1997) but for the most part, Swainson's hawks are complete migrants, breeding in North America and wintering in Mexico and S. America. Except for those rare overwintering birds, they are not a permanent resident of the Central Valley (Biosystems Analysis 1989, CDFG 1993, England et al. 1997, Woodbridge 1998). I4-1

This 5-6 months absence should be kept in mind when doing the pre-construction surveys that "will determine the status and presence of, and likely impacts to, *all* covered species on the site." If the pre-construction surveys are done anytime in between early September and early March, it is likely that the surveyors will not detect Swainson's Hawks that might otherwise be present if it were breeding season (late Feb and early March-early Sept./ early Oct). The land to be developed might be suitable and important breeding or foraging habitat for Swainson's hawks, yet the hawks will not be present to prove the importance of the land if the pre-construction surveys are done when the hawks are migrating or on their wintering grounds down south. To ensure that Swainson's hawks will be fairly detected before development is approved or not, the pre-construction surveys must be done between early March and early September. More than one pre-construction survey may have to occur in different seasons, depending on the life histories of the other Covered Species in the area.

B)

NBHCP fails to require high enough replaced: developed land mitigation ratios for areas within ½ mile of an active nest. Since the noises from development one half mile away may be loud enough to disrupt the hawks, I suggest that biologists should monitor all active Swainson's hawks nests that are within ½ - 1 mile of development to find out the hawks' reactions to development. I4-2

NBHCP, V-9:
"If breeding Swainson's hawks (i.e. exhibiting nest building or nesting behavior) are identified, no new disturbances (e.g. heavy equipment operation associated with construction) will occur within ½ mile of an active nest between March 15 and September 15, or until a qualified biologist, with concurrence by CDFG, has determined that young have fledged or that the nest is no longer occupied."

This means that development can occur within a half-mile of Swainson's hawks' nests, as long as construction, etc. is held off while the hawks are present. I recommend that the land developed within this ½ mile must be replaced with *greater* than 0.5 acre for every acre developed (see H below).

Swainson's Hawks are generally tolerant of regular, ongoing human activities around nest sites in agricultural and urban landscapes (England et al. 1995, Estep 1989). However, changes in activity regime (construction in previously open areas, human intrusion at nest site) frequently causes nest abandonment, particularly during the pre-nesting, egg-laying, and incubation stages of the reproductive cycle (Estep 1989, Woodbridge 1998). New disturbances, therefore, frequently cause chick mortality, which results in permanent loss for the population because Swainson's hawks have one brood a year and apparently do not lay replacement clutches (BLM 2002, Woodbridge 1998).

How did ½ mile from the nest get chosen as the determining distance for which development will be allowed beyond? If disturbances are exceedingly loud or extensive the hawks will be disrupted (England 2002). There is no evidence provided or studies mentioned in the NBHCP that have proved that large amounts of noise and disturbance a half mile away will not cause nest abandonment. It seems as though loud machinery and humans working one half mile away would still be loud and disruptive to nesting Swainson's hawks. I recommend that the NBHCP provides this evidence needed. If that information is not provided, I recommend that upon the first day of development until the Swainson's hawks leave their nests, biologists tri-weekly (or more) monitor all nests that are 0.5-1 mile away from development. If nest abandonment occurs for example at a nest 0.6 miles away from development, all development that is in the Basin that is within 0.6 miles of any active nest must be immediately stopped until the birds have left to migrate south. Biologists should also monitor the behavior and success of all the Swainson's hawks in those nest trees. A dramatic change in behavior or chick mortality is probably the result of development nearby and if this becomes a pattern with more than 1 nest within 0.5-1 mile of development, then development should also be stopped until the hawks migrate south.

I4-2

C)

I4-3

The NBHCP fails to define what an impacted nesting tree is and the NBHCP is not convincing enough in justifying why a nesting tree should be allowed to be impacted by development. The proposed measures (planting 15 sapling trees in a preserve) to be taken after the impaction of a nesting tree also do not convince me that suitable habitat will be provided soon enough and well enough. Therefore, no nesting trees should be impacted. Cutting down trees should be seen as a direct take of the bird and it's 1-4 chicks that it produces every year (England et al. 1997).

NBHCP, V-10:
"The NBHCP will require 15 sapling trees to be planted within the habitat reserves for every Swainson's hawk nesting tree anticipated to be impacted by Authorized Development."

First of all, what is an impacted nesting tree? Is this just a nesting tree that will be cut for Authorized Development or is it also a nesting tree that will remain standing within a certain area of development?

This definition needs to be made clear in the final draft of the NBHCP. I suggest that it be defined as both of the definitions that I just mentioned. The "certain area" should equal 1 mile from the nest. So for every nest tree removed and for every nest tree that is within 1 mile of development, 15 sapling trees will be required to be planted within the habitat preserves. However, as I stated before, ideally no nesting trees should be cut.

I was wondering when I read this statement how long it takes for these tree species to grow and my question was soon answered: "nesting habitat will be available quickly (5-10 years in the case of cottonwoods and willows), and in the long term (i.e., valley oaks, black walnut and sycamores)." Five years is still a long time. The birds only live for an average of 7 or 8 years (BLM 2002, Woodbridge et al. 1995). And valley oaks, black walnut and sycamore trees are very slow growing trees. Valley oaks won't be fully mature until 40 years and black walnut and sycamore trees take 20-30 years to mature (Baughman and Vogt 1996, Denkmejian et al. 1998) What are the hawks supposed to do in the meantime? They will have to crowd into the fewer trees that are still standing. It should be noted that Swainson's hawks also typically nest in willows, black locusts, box elders, junipers, and aspens (England et al. 1997). If any of these trees are present in the Basin project area, then they should also be planted along with the other tree species already mentioned.

I don't think that planting 15 trees someplace else is necessarily going to solve the problem of developing an area where an active nesting tree is that was obviously a good spot for the Swainson's hawk to nest and forage nearby. The entire matrix around the nesting tree is important. The hawk chose that area out of the all the other areas in the Basin, yet developers will soon be able to take away that preferred habitat. And what if this new area where the trees are planted is not nearly as suitable in the eyes of a Swainson's hawk as biologists thought it would be? It might have to settle for someplace else which may not provide it with its needs for survival. Also, individuals frequently use the same nest or nest tree in successive breeding seasons or move only short distances within the same territory (England et al. 1997, Woodbridge 1998). So most likely, the birds will return to the nesting tree that is no longer there because of development. They might experience lag time in figuring out what just happened, where their nest went, and where to go next, throwing their breeding cycle off. Or if they try to nest within the same territory (in the developing area) because this is where they've always nested, the site within the developing area will not be optimal habitat. Therefore, no nesting trees should be cut and no development should occur within a mile of nest trees.

I4-3

D)

The NBHCP fails to define "unavoidable." This term should be defined. Once again, for reasons already provided, nesting trees should not be taken even if it is "unavoidable."

NBHCP, V-9:
"Where disturbance of a Swainson's hawk nest cannot be avoided, such disturbance shall be temporarily avoided (i.e., defer construction activities until after the nesting season) and then, if unavoidable, the nest tree may be destroyed during the nonnesting season. For purposes of this provision the Swainson's hawk nesting season is defined as March 15 to September 15. If a nest tree (any tree that has an active nest in the year the impact is to occur) must be removed, tree removal shall only occur between September 15 and February 1."

I4-4

I don't think it is right to cut down any nesting trees. However, if nesting trees are going to be removed, there should definitely be a limit as to *how many* nesting trees can be removed in the Basin. I don't find any sort of limit mentioned anywhere. And what exactly defines "unavoidable"? How and when is cutting down a tree unavoidable?

E)

I4-5 No development should be allowed in the Swainson's Hawk Zone, unlike V-8 of the NBHCP suggests.

NBHCP, D-7:
"Swainson's Hawk Zone: This zone is defined as the lands which are not currently developed (excluding the 250 acres of land designated "Urban" on the City of Sacramento General Plan and the North Natomas Community Plan located within the City of Sacramento) and which are located within the Natomas Basin and within one mile east of the Sacramento River and extending from the Natomas Cross Canal on the north and Interstate 80 on the south. See also Figure 13 of the NBHCP."

Note: 47/60 nests are within this Zone and 3 nests are right beside the Eastern boundary of the Zone.

NBHCP, V-8:
"A Permit area of 252 acres will be allowed within the Swainson's hawk zone to grant development. Of these 252 acres, 80 acres will be a buffer along the Fisherman's Lake."

If this is a Swainson's Hawk Zone, why is development being allowed in the future that could possibly displace hawks from their Zone? I don't think any development should be allowed in the Swainson's Hawk Zone! After development begins and continues throughout the Basin, the hawks may become mostly limited to this Zone. Why develop the one "safe" haven they have left?

Habit loss due to residential and commercial development is currently the most significant threat to the remaining population of Swainson's hawks (CDFG 1993) and only the Central Valley and Modoc Plateau still support more than a few isolated pairs (England 2002). Forty-seven out of 60 nests occur in the Zone and 3 more occur right beside the Eastern Zone (Figure 13, NBHCP). Due to the high density of current nest sites within the Zone, the potential for additional nest sites, the high value of riparian areas for nesting sites (CDFG 1993, England 2002, England et al. 1997, Woodbridge 1998), the importance of the Central Valley in being one of the last places for Swainson's hawk populations to live, and the significant threat that development brings to the population of Swainson's hawks, *no development* should be allowed within the zone or anywhere in the Basin that is within 1 mile of an active nest. Development in these areas will result in permanent losses of nesting habitat, and the cumulative effects of habitat fragmentation caused by the proposed 252 acres of development will result in further losses.

Riparian zones are crucial to protect for Swainson's hawks in order to provide suitable nesting habitat. The more area within that Zone that is available, the better off the hawks will be. Also development in the area may drive away some hawks from one of the only available riparian zones in the area.

Here is some information concerning the importance of riparian habitat to Swainson's hawks from various sources:

"Although not an obligate riparian species, the availability of nesting habitat is strongly tied to the distribution of riparian forest or riparian trees in much of the Central Valley portion of the species' range in California (Woodbridge 1998).

"Although Swainson's hawks will nest in trees located in upland areas, their strong association with riparian forests suggests that protection and restoration of these habitats may provide nesting habitat superior to other sources of trees such as roadsides and field margins" (Woodbridge 1998).

"[They] typically nest in a solitary tree, bush, small grove, or line of trees along a stream course" (England et al. 1997).

"Over 85% of documented Swainson's hawks nest trees in the Central Valley have been found in riparian systems, making this habitat type critically important" (CDFG 1993).

Due to the high density of current nest sites within the Zone, the potential for additional nest sites, the high value of riparian areas for nesting sites, the importance of the Central Valley in being one of the last places for Swainson's hawk populations to live, and the significant threat that development brings to the population of Swainson's hawks, *no development* should be allowed within the Zone or anywhere in the Basin that is within 1 mile of an active nest. Development in these areas will result in permanent losses of nesting habitat, and the cumulative effects of habitat fragmentation caused by the proposed 252 acres of development will result in further losses.

I4-5

F)

If development does occur in the Swainson's Hawk Zone, absolutely no more development should be allowed beyond the 252 acres. This is never actually stated in the NBHCP.

NBHCP, V8:
"Should either the City or the County seek to expand NBHCP coverage for development within the Swainson's Hawk Zone beyond that described above, granting of such coverage would require an amendment to the NBHCP and permits and would be subject to review and approval by the USFWS and the CDFG in accordance with all applicable statutory and regulatory requirements".

So basically, the writers of the HCP do not clearly say that there will be no more development in the Swainson's Hawk Zone beyond the 252 acres. Instead, it says that *if* the CDFG and USFWS approve, then more development *can* occur. Isn't 252 acres of development enough? If the 252 acres of development goes ahead, I think that absolutely no more development should be allowed in the Swainson's Hawk Zone. Their original habitat has been and will continue to be encroached upon enough.

I4-6

NBHCP, IV-21:
"The NBHCP's primary strategies to mitigate impacts to the Swainson's Hawk Zone caused by Authorized Development is to *avoid development* in the Swainson's Hawk Zone...."

This seems like a contradictory statement to me. Two-hundred and fifty two acres are planned to be developed.

G)

Present and future research is needed in the Swainson's Hawk Zone.

I4-7

Whether or not development occurs, research should immediately occur in the Swainson's Hawk Zone to establish population trends, new and historic nest site areas, hatching success, distance between nests, territoriality, interactions with conspecifics, etc. Since hawks may be displaced from their original nests outside the Zone and retreat to the Zone, density of hawks may increase in the Zone. Research studies done in the Zone before, during, and continuously after development will show if there is an increased density in the area, as well as the response of hawks to the higher density in terms of home range size,

territory size, site fidelity, hatchling/fledging success, survival/mortality rates, etc. Are the hawks concentrating in the Zone, and if so how are they dealing with it? If the home range/territory size *is* smaller than expected, are they still hatching and fledging as many chicks as before the density increased or compared to the average amount of chicks hatched from hawks in the area before construction began?

These types of questions should be answered from continuous monitoring of the population of Swainson's hawks before, during, and post development. Research is a valuable tool and since the highest densities of Swainson's hawks occur in the Zone, this is a great area to research the biology of the hawks and to monitor population trends and behavior responses to development occurring in the Basin. Research should begin as soon as the NBHCP is passed and continue at least 5 years after development ends and preferably continue indeterminately as long as funding is available. This post development research will help to show how the population of hawks in the Basin recovered after development. If the hawk populations do poorly and are obviously threatened, then more riparian or other suitable nesting habitat should be required to be provided that has suitable foraging areas nearby, since placement of nests is dependent on proximity to foraging habitats that are entirely different from the vegetation selected for nest sites. Suitable foraging habitats in the Central Valley are generally treeless agriculture lands of the right crop, with unsuitable foraging areas being orchards, vineyards, irrigated pastures, grain, corn, cotton, and rice fields (CDFG 1993, SWHA 2002, Woodbridge 1998). Monitoring Swainson's hawk populations and behavior should occur in the Zone and if possible in the newly reserved areas.

I4-7

H)

I4-8

The 0.5:1 mitigation ratio of replaced to developed land in the NBHCP is not high enough!! Higher mitigation ratios are being proposed in other HCP's in the Central Valley that also have Swainson's hawks and preserving only half of the land that will be developed will most likely result in mortality of Swainson's hawks as suitable habitat continues to be developed.

NBHCP, VI-5:
"Mitigation required of Authorized Development projects will include the collection and use of mitigation fees, and in some cases acceptance of land dedications, to set aside and manage 0.5 acres of habitat mitigation land for each 1.0 gross acre of development that occurs in the Basin."

Many other proposed HCP's that include Swainson's hawks have much higher mitigation ratios. Here are a few:

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), which includes measures to avoid and minimize incidental take of the covered species [including SWHA], emphasizing project design modifications to protect both habitats and species. It classifies the county's land uses into four general categories: Natural Lands, Agriculture Lands, Multi-Purpose Open Space, and Urban Lands. Habitat preservation and/or creation will be acquired to mitigate for loss of natural and agricultural lands. Up to 71,837 acres of Natural and Agriculture Lands could be converted under the plan, requiring approximately 100,241 acres of habitat preservation and/or creation. Approximately 90% of the preservation will be achieved through the use of conservation easements with the remaining lands purchased outright,..an additional 600 acres will be preserved to compensate for potential impacts to "covered" species that stray from preserve lands onto neighboring lands." (USFWS 1999)

100,241 acres+ 600 acres= 100,841 acres of preservation or creation / 71,837 acres of conversion = 1.4 acres of replaced land for every 1 acre of land conversion (avg. for total project)

More detailed look at the SJMSCP mitigation ratios:

1:1-acre mitigation ratio, Preserve Land acquisition: Ag Habitat Land converted from Open Space use

3:1-acre mitigation ratio, Preserve Land acquisition: Natural land

3:1-acre mitigation ratio, Preserve Land acquisition: Natural Land converted from Open Space (SJCOG 2000)

Yolo County Habitat Conservation Plan:

"The total acreage of all mitigation lands must *equal or exceed 100%* of the total acreage of the development on an annual basis (1-to-1 ratio)" (USFWS and CDFG 1996).

Back to the NBHCP:

"Habitat Conservation Planning efforts (Natomas Basin HCP is an example) have been *based* primarily on the draft CDFG mitigation guidelines. However, these guidelines have been thoroughly reviewed by the Swainson's Hawk Technical Advisory Committee (SWTAC), an independent group of agency and private biologists with experience with Swainson's hawks. The SWTAC has pointed out several flaws in the guidelines, and has judged them to be *inadequate* to conserve or recover the species in the Central Valley. SWTAC concludes that the CDFG guidelines will result in a loss of foraging habitat throughout the remaining area populated by the species, and does not consider the potential habitat needs of additional territories with population recovery. (Woodbridge 1998).

Under CDFG draft mitigation guidelines, losses of suitable foraging habitats within 10 miles of a Swainson's hawk nest site must be mitigated by protection or creation of equally suitable foraging habitat elsewhere within the territory's 10-mile radius. The ratio of replaced/loss habitat changes from 1:1 within 1 mile of a nest, to 0.5:1 over 5 miles from the nest. (I was unable to find the guidelines for the mitigation ratio from 1-5 miles of a nest). These ratios are inadequate according to SWTAC.

I disagree with these ratios as well, which are similar to the ratios suggested in the draft NBHCP that all developed land no matter where the location, will be replaced with only half the amount of land that will be developed. Basically, half of the land that was once available to these birds will be gone under this NBHCP draft plan. The *amount* and intensity of land uses within the large home ranges of Swainson's hawks are the primary factors determining habitat quality (largely a function of prey abundance and availability) for a given territory or subpopulation (Estep 1989, Woodbridge 1998). Swainson's hawks travel long distances (up to 29km=18 miles) from their nest sites to forage (Estep 1989, England et al. 1997). In agricultural habitats, these foraging distances are closely associated with seasonal maturity of crop. The largest distance traveled occurs when crops are mature, making it harder for Swainson's hawks to find prey (Bechard 1982, Estep 1989, Woodbridge 1998). Habitat use by breeding birds occurs at the landscape scale, rather than the microsite scale, as may be the case for many nesting songbirds. Placements of nests by Swainson's hawks are dependent on proximity to foraging habitats that are entirely different from the vegetation selected for nest sites. Loss of patches of high-quality foraging habitat to development or conversion to high-intensity crop types adjacent to riparian forest or other patches of trees may eliminate territories (Woodbridge 1998). Lastly, in Central California, urban nesting birds were farther from suitable foraging habitat than were rural nests, and they fledged fewer young (England et al.1995).

Therefore, it is important to maintain the *same amount* of suitable foraging habitat *within* 10 miles of the active nest that will be developed because: suitable habitat available to Swainson's hawks needs to be large (at the landscape level), proximity to foraging habitats is important to Swainson's hawks' success,

these hawks will travel 10 miles or more (up to 18 miles) to forage, loss of foraging habitat may eliminate territories, and more distance from suitable foraging habitats results in fewer fledging young.

I agree with the CDFG draft mitigation guidelines when they suggest that losses of suitable foraging habitats within 10 miles of a nest site must result in creation or protection of equally suitable foraging habitat elsewhere within the territory's 10-mile radius. Notice however that this CDFG statement I agree with does not mention the amount of area to be protected. I agree with the SWTAC in judging the CDFG's replaced: loss mitigation ratios (1:1 within 1 mile of a nest, to 0.5:1 over 5 miles from the nest) to be inadequate to conserve or recover Swainson's hawks in the Central Valley. I recommend that if development is from 1 to 10 miles from an active nest, preserve land should be within the 10-mile radius and mitigation ratios for the NBHCP should be equal to or greater than mitigation ratios recommended by the Yolo and San Joaquin HCP's, which range from 1:1 to 3:1.

The NBHCP fails to address loss of habitat within the Swainson's Hawk Zone along the Sacramento River when development occurs. The current NBHCP proposal includes development of 252 acres within the Zone. As I already previously stated in section E, *no development* should be allowed within the Zone. Development in these areas will result in permanent losses of nesting habitat, and the cumulative effects of habitat fragmentation caused by the proposed 252 acres of development will result in further losses.

I recommend that any proposed development within the Zone or within 1 mile of any active nest in the Basin, if allowed by future drafts of the NBHCP, must exceed or equal a mitigation ratio of 3:1 (as proposed by San Joaquin HCP's, preserving 3 acres for every acre of development on natural lands) and must be replaced with riparian habitat, the preferred area for nesting sites.

In conclusion, I recommend that *no development* occur in the Swainson's Hawk Zone. However if this recommendation is not carried out, I recommend for every acre of development that occurs within the Zone *and* for every acre of development that occurs anywhere in the Basin that is within 1 mile of an active nest, that 3 acres or more of the same habitat type be preserved. For example, if 250 acres of riparian habitat is developed within the Zone, 750 acres of riparian habitat must be preserved outside of the Zone (since the Zone is already preserved). If this ratio is still not approved, I strongly recommend that *at least* a 1:1 mitigation ratio be implemented. Anything less than that is completely unacceptable, giving the importance of nest site areas. To maintain foraging habitat, I recommend that a replaced: developed mitigation ratio ranging from 1:1 to 3:1 will be applied for any land that is developed from 1 to
I4-8 10 miles away from an active nest and that this preserved land is within the 10 mile radius zone from the active nest. The NBHCP mitigation ratio is not large enough!

I)

As of now, no riparian habitat has been preserved since the first NBHCP in 1997 (Roberts pers. comm).

So far the Swainson's Hawk Zone will be the only preserved riparian area for Swainson's hawks.

I4-9

I suggest that at least one chunk of 400 acres minimum of riparian land be preserved outside of the Zone, once mitigation procedures proceed with development. The Fisherman Lake area would be a great place to set up a preserve. This is described in more detail later (see section S).

J)

I4-10

I have 2 concerns about taking away "less suitable" habitats and creating more "suitable" habitats at unequal ratios (25% upland habitat, 25% managed marsh, 50% rice production). The first is, what may be suitable to one species may not be suitable to another species. My second concern is the amount and percentage of each habitat that should be preserved. At least 50% and preferably 100% of the amount of each habitat types that exist now should be preserved in the future (whether it be in or outside the project area), as soon as possible and development should happen slowly. All habitat types that exist now should also exist after development. Monitoring of wildlife populations should occur throughout the project area to determine the reaction of wildlife to development.

NBHCP, IV-6:
"Much of the land to be developed after issuance of the NBHCP Permits is either of limited value as habitat or serves as habitat to a limited number of the Covered Species. In contrast, TNBC reserves will be enhanced and managed to provide a greater diversity of habitat that will serve a larger number of Covered Species. Thus, the reserves to be *created* through habitat management will offer greater opportunities for species survival by providing a refuge from persistent mechanical or in some cases chemical disturbance often associated with common agricultural practices."

NBHCP, IV-13:
"The NBHCP provides for a general division of land uses within TNBC reserves as follows: 25% managed marsh; 50% rice production; and, 25% upland habitat."

I have 2 concerns about taking away "less suitable" habitats and creating more "suitable" habitats at unequal ratios (25% upland habitat, 25% managed marsh, 50% rice production). The first is, what may be suitable to one species (say Swainson's hawk) may not be suitable to another species (say a willet). This is obviously common sense, but my hope is that there will indeed be a variety of habitat types preserved. The habitat types being: open water, freshwater marsh and margins of open water, riparian scrub-shrub, valley riparian forest, valley oak woodland, grassland/savanna, grassland, levee sides and old field. In order to maintain flora and wildlife diversity it is imperative that all these types of habitats are preserved because although some species occur in more than one habitat, there are some species that are unique to one habitat type.

Species occurring in only one habitat according to II-43-46 of the NBHCP:

<u>Open water (including flooded rice fields)</u>
Pied-billed grebe, common golden-eye, whistling swan, cinnamon teal, bald eagle, mallard, American coot, forster's tern, snow goose, American wigeon, double-crested cormorant, pintail, ruddy duck, CA gull, Ross' goose, Kingfisher, Western pond turtle

<u>Freshwater marsh and margins of open water</u>
Marsh wren, yellowthroat, black-crowned night heron, green heron, killdeer, belted kingfisher, yellow-headed blackbird, purple gallinule, cattle egret, long-billed curlew, black-necked stilt, tricolored blackbird, great egret, American avocet, yellowlegs, black tern, red-winged blackbird, American bittern, snowy egret, sora, willet

<u>Valley riparian forest</u>
Flicker, violet-green swallow, red-shouldered hawk, vireos, fox sparrow, titmouse, black-headed grosbeak, woodrat, southern alligator lizard

<u>Valley oak woodland</u>

Rough-legged hawk, sharp-shinned hawk, meadowlark, ash-throated flycatcher, western rattlesnake, CA slender salamander

Grassland/savanna
Black-tailed hare.

Then there are species that occur in 2 habitats. Since they occur in both habitats one might say that it is sufficient to preserve just one of those habitat types, but the species may need both habitats: one for foraging one for nesting, etc. The same can be true for species that occupy more than 2 sites. They may need all those habitat types for a part of their life cycle.

Some species that occur in 2 habitats in the Basin
Muskrat, yellowthroat, green heron, bewick's wren, black phoebe, northern harrier, cottontail, screech owl, tree swallow, rufous-sided towhee, brown towhee, anna's hummingbird, western tanager, kingbird, mourning dove, golden eagle, loggerhead shrike, short-eared owl, horned lark, brewer's blackbird, gilbert skink, ring-necked snake

My second concern is the amount and percentage of each habitat that should be preserved. At least half of the amount of each habitat types that exist now should be preserved in the future, as soon as possible and development should happen slowly. As of now, 25% of preserve lands will be upland, 25% will be marshlands, and 50% will be rice fields. If 16,000 acres were developed then 8,000 acres would be preserved (if the 0.5:1 mitigation ratio is approved) and only 2,000 acres would be upland habitat. But what if over 4,000 acres of upland habitats were developed? I think that at least half of the amount of same habitat type developed should be preserved.

No one knows yet how much habitat can be lost in an area in order for the species in the Basin to be able to maintain population sizes that occur now. Will all of the wildlife species in the Basin even fit into only half the amount of habitat area that exists now? Will increased competition (due to higher numbers and possible greater number of species in the relatively smaller preserve area) rule some species out? Will niches overlap too much? Will there be enough food, cover, etc. for wildlife species in the preserve? Who knows! The only way to find out is to monitor the populations throughout the project area as development happens which will be a long and tedious process. Therefore, habitat should be developed slowly, not all at once. If populations are doing poorly, more of that particular habitat type should be preserved at once. Or a better solution is to develop much less land in the first place.

I4-10

K)

This statement is misleading:

NBHCP, IV-1:
"Of the 53,537 acre Natomas Basin, about 7,267 acres were already developed in 1997, leaving a balance of 46,270 acres of undeveloped and agricultural land."

I4-11

If 17,500 more acres were developed as proposed, the reader would likely assume that 28,770 acres would be left as open space consisting of undeveloped and agriculture land.

However, Friends of the Swainson's Hawk (FOSH), wrote a letter that stated that the NBHCP envisions 17,500 acres of new urban development added to the already 4,400 acres already developed, 3,000 acres of airport and highway use, and 4,400 acres of airport buffer lands (FOSH 2002). This leaves 24,237 acres to be left as open space, not 28,770 acres.

L)

I oppose the additional 10,000 acres of development proposed by the City/ County Joint Vision MOU for the Natomas Basin.

As I understand there is a proposed City/ County Joint Vision MOU for the Natomas Basin that would lead to 10,000 more acres of development (with a 1:1 mitigation ratio), in addition to the proposed 17,500 acres permitted by the NBHCP. Urbanization proposed by the NBHCP and the MOU would pave over most of the areas where the Giant Garter Snake have been documented and severely reduce Swainson's hawk foraging habitat (FOSH 2002c). More and more development will make it harder to find willing sellers to provide preserve lands because of land speculation. Not only will it be harder to find willing sellers to provide preserve lands, but "A probable result of the new development contemplated by the MOU would be the extirpation of the GGS population in the Natomas Basin, thereby jeopardizing the survival and recovery of that species; and severe impacts on California's Swainson's Hawk population" (FOSH 2002c). In order to prevent that devastating possibility, no more than 17,500 acres of urban development should occur in the Basin. If all of that additional 10,000 acres is developed in the project area, there will not be enough land left to preserve if the 1:1 mitigation ratio is implemented. 10,000 acres would need to be preserved and only about 5,000 acres of open space would be left after 10,000 more acres of development.

I4-12

Here's the math:
53,537 acres - 4,400 already developed -17,500 acres of new development - 8,950 acres of anticipated preserve lands -3000 acres of airport and highway use - 4,400 airport buffer lands - 10,000 acres of proposed new development – 10,000 acres of proposed preserve lands = - 4,713 acres of open space (FOSH 2002c).

This proposition of 10,000 acres of development and 10,000 acres of preserve lands simply does not work. There is just not enough space in the Basin to fit all the proposed development and reserve lands.

This is outrageous to me that so much land could possibly be developed in an area that contains so many important flora and fauna, many of which are species of concern. Do we want all of California to be paved? That's where we are heading. Thirty-six species in CA have been already been driven to extinction in recent times and another 1,088 are currently listed as rare, endangered, or threatened by state and federal fish and wildlife agencies. California hosts more unique plant and animal species than any other state in the country, yet no other state has grown as fast or as consistently (PCL 2002). It is crucial to protect what biodiversity is left in CA before it is covered with development. Please do not pass 10,000 more acres of development in addition to the planned 17,500. And please do not allow the full 17,500 acres of development!

M)

I4-13

The NBHCP requires that land may be acquired only from willing sellers and that the preserve lands be large, which could easily *limit* the amount of *suitable* habitat that can be acquired as mitigation land.

NBHCP, IV-3-4:
"TNBC performs an important function for the NBHCP by establishing and overseeing a concerted program for acquiring, enhancing and managing mitigation lands in perpetuity on behalf of the Permittees. Specifically, TNBC will receive mitigation fees collected by the City and County (and from the County of Sacramento for the Metro Air Park Project), using the fees to establish mitigation lands, and to manage

the mitigation lands for the benefit of the Covered species....As a non-governmental entity, TNBC has no powers of condemnation and can only purchase lands from willing sellers."

NBHCP, IV-2:
"The TNBC has acquired 2,104.14 acres of habitat reserve land to date on behalf of the City."

Yet 7,267 acres were developed in 1997. The preserved area is not even half of what has been developed. Even if there are more rules laid out in the recent draft NBHCP to enforce stricter mitigation, I don't see how finding willing sellers is going to get any easier all of a sudden than it has been since 1997. In fact it should get harder with increased land speculation. How does TNBC plan to acquire more preserve lands in the future when they obviously haven't been able to acquire enough land in the past and they have acquired absolutely no riparian habitat (Roberts pers. comm)?

The NBHCP states that there will be 8,750 acres of habitat preserves and that the preserves will be consolidated into large, biologically viable units where one habitat block within the reserve system shall be a minimum of 2,500 acres in size and the balance of reserve lands shall be in habitat blocks that are a minimum of 400 acres in size (NBHCP, IV-9). All of this talk of acquiring large blocks of reserve lands sounds great on paper, but I doubt it is really feasible, and especially not feasible to acquire *enough* sufficient habitat for all of the many species that occur in the Basin. I do not suggest preserving smaller blocks of land. I suggest less development, which would allow for more realistic availability of large blocks of preserve lands.

I4-13 The harsh reality of not being able to acquire reserve land easily (or at all) is yet another reason why I oppose so much development to occur in the Natomas Basin. Even if half of the land developed is preserved, mass amounts of plants and wildlife losses are bound to occur. Yet, I doubt that the TNBC will even be able to acquire that much land and I doubt it will be in enough time to make a difference to the wildlife that is in need of a large suitable habitat. Less development should occur in the NBHCP.

N)

Creating habitat that is suitable to the wildlife that lost their habitat due to development, seems to sound better on paper than actually implementing.

NBHCP, IV-5:
"The TNBC reserves will be specifically managed to create habitat to support the covered species..."

I4-14 Once again this sounds wonderful on paper, but in reality, one can't go about just creating habitats here and there to support wildlife species and have this creation be successful every time. Biologists are not Gods who know everything about a habitat that makes it suitable for a particular species to be successful. Knowing what is suitable for a mosaic of species is especially impossible. There are so many factors that correlate to the success of particular species, be it wildlife or plants. And all of these factors may not be obvious to biologists, nor may they ever be. Creating a suitable habitat is not going to be easy and should not be taken lightheartedly. What is planned to be done if the created habitat does *not* support the covered species and how will anyone know if the habitat is not supporting the wildlife?

O)

I4-15 How do these described buffers outside the airport fit into the availability of adequate reserve lands? Not enough attention is given to the matter in the NBHCP.

NBHCP, IV-32:
"All mitigation lands established for the NBHCP reserve system will need to be located and managed to avoid potential safety conflicts relating to collisions between aircraft and birds, and to be consistent with the May, 1997 Federal Aviation Administration Advisory Circular concerning wildlife attractants in the vicinity of airports. The Advisory Circular recommends the following distances between an airport's aircraft movement areas, loading ramps, or aircraft parking areas and the wildlife attractant: (1) 5,000 feet for airports serving piston-powered aircraft; and (2) 10,000 feet for airports serving turbine-powered aircraft. In addition, the Circular recommends that a distance of five statute miles be maintained between a wildlife attractant and the airport's approach or departure airspace if the attractant may cause hazardous wildlife movement into or across the approach or departure airspace."

I4-15 The NBHCP mentions the buffer space that is needed between airports and reserves but it fails to address the idea that even less land will be available to acquire and establish as preserves with the buffer that will protect wildlife species. This issue should be addressed in the NBHCP and considered when promising 8,950 acres of preserve lands to be established. I suggest less land being developed in the first place.

P)

I4-16 I expect the following statement to be upheld and not broken.

NBHCP, IV-6:
"TNBC system of reserves will be managed and maintained in perpetuity, providing permanent habitat for the Covered Species."

Q)

I4-17 The NBHCP fails to address how corridors will be provided for land locomotive species. This needs to be addressed.

NBHCP, IV-7-8:
"A primary goal of the NBHCP is to ensure connectivity between individual reserves, and connectivity between reserves and surrounding agricultural lands. Connections can be provided along land, through water and through air to enable the necessary mobility of species within their ranges.... In addition to the channel connectivity described above, TNBC will consolidate reserve acquisitions during the fifty (50) year life of the permits in order to build larger blocks of habitat reserve lands...The connectivity promoted through TNBC acquisitions will reduce fragmentation and isolation of habitat reserves, thereby increasing the long-term viability of wildlife populations within the Natomas Basin."

There are no examples given here or anywhere in the "connectivity" section about how connectivity on land is going to be ensured, besides by making sure that the preserved lands are large. However, that does not ensure connectivity. There will still be gaps in between the large preserves. Connectivity for water species is described in detail. And birds that fly shouldn't be affected much since they can fly, but what about land locomotive species? How will corridors be created for them?

R)

I4-18 The NBHCP fails to address the issue of hunting in detail. This is the only area I found that it was mentioned. Hunting needs to be highly regulated.

NBHCP, IV-26:

"Management plans will identify the level of hunting allowed, if any, and will include parcel specific restrictions to protect the Covered Species during any hunting activities. No take of Covered Species as result of hunting will be covered under the permits."

How much and where will hunting be allowed and for which species? It seems that hunting contradicts the statement quoted directly below that states that access to reserves should be limited.

NBHCP, IV-25:
"Generally, public access to TNBC reserves shall be limited or regulated. Riparian and wetland areas are more valuable as wildlife habitat when they are located where human access is limited. TNBC will protect the Covered Species and their habitat by limiting and regulating public assess to TNBC reserves. Reserves shall be patrolled to control prohibited and incompatible activities, including, but not limited to, dumping, off-road vehicle activity and trespass."

I4-18 The hunting areas and regulations need to be established and they need to be in areas where Covered Species will not be negatively affected. This should be discussed in the NBHCP.

S)

I4-19 Fisherman's Lake and surrounding area should be preserved.

The NBHCP states that "Fisherman's Lake, and the immediately adjacent areas are, and will continue to be, owned and managed by RD 1000" (NBHCP, V-2). Instead the NBHCP should propose to acquire the lake from RD 1000 and give them a separate drainage canal. As it is now, the plan does not propose much change.

The Natomas Basin Conservancy does own preserves, which are near Fisherman's Lake, totaling 258 acres (TNBC 2002). The NBHCP also plans to include a 250- foot wide buffer on the City side of the lake in the Land Acquisition Program to be managed by TNBC. It will stretch from Del Paso Road to El Centro Road. The City has also agreed to initiate a North Natomas Community Plan amendment to potentially widen the agricultural buffer along the City side of Fisherman's lake to 800 feet wide (NBHCP, V-2).

First of all, I think that that the word "buffer" needs to be explained. What does a buffer amount to in terms of preservation of the land? Will the buffer land be managed for Critical Species in the area?

Whatever the case, this proposed NBHCP does not amount to *enough* preserved land near Fisherman's Lake. I have already explained in depth that riparian areas along with suitable foraging areas nearby are crucial to the survival of Swainson's hawks (see Section E). Fisherman's Lake and it's surrounding area is also important because Swainson's hawks already inhabit the area, it is identified in all major environmental studies and recommended by GGS experts as habitat that should be preserved, to date no lands have been preserved south of Elverta Road, airport buffer lands in this area add to preserve for cumulative species benefit, the area is not zoned for development, it supports both upland and wetland species, and it is part of the historic slough linking the American Lakes (FOSH 2002a). The Lake is also located close to the growing suburban population, west of I-5 on Del Paso Road. Houses have already been built just to the east of the Lake, in an area called Westlake. The owner of the land between the new houses and Fisherman's Lake, AKT, wants permission to build more houses in what they call "West Lakeside." However, Swainson's hawks nest very close to this site (FOSH 2002b). Special care must be taken to avoid encroachment from development upon Sawinson's hawks in the Fisherman Lake area.

For all of those reasons, I agree with FOSH in recommending that all the land south of I-5, west of El Centro, east of the Sacramento River, and north of I-80, that is not already developed, be acquired as a preserve (Lamare pers. comm). Managing this land around Fisherman's Lake to maximize the habitat value and to restore the land is very important. Most of this land should be managed for Swainson's Hawk foraging. The lake and immediately surrounding area should be managed to support giant garter snakes.

Along with FOSH, I request that the southerly 300 acres of Metro Airpark not be developed. This is a marshy area (originally in floodplain) that links to the area south of I-5 and forms part of the connectivity. This area has been used by white tailed kite as well as Swainson's Hawk (Lamare pers. comm).

Most important, I agree with FOSH in suggesting that there must be full protection of a corridor going north from Fisherman's Lake under I-5, connecting with other preserve lands to maintain connectivity.

I4-19 If these requests are not met, there should at the very least be significant additional protection for the lake banks and trees in the Fisherman Lake area.

I4-20 If 17,500 acres of development are allowed, I suggest that absolutely no other additional development should ever be allowed and it should be written and agreed upon in the final NBHCP.

Summary of my requests and concerns:

I4-21 Foremost, it is obvious from all of the points I just presented that I am opposed to all development in the Natomas Basin. The Central Valley is one of the only strongholds left for the hawks, and development will negatively affect Swainson's hawks, which have been listed by the state as threatened since 1983. I chose to focus on the Swainson's hawk, but development will inevitably negatively affect *many* species that occur in the project area, such as the federally and state threatened giant garter snake. Development will most likely decrease or possibly eliminate local populations of vulnerable species in the area no matter what precautions are taken.

However, knowing the harsh ways of reality and urban sprawl, development will most likely occur in the Basin and if it does, I hope that my concerns and suggestions are taken into consideration. They are summarized below.

I4-22 To ensure that Swainson's hawks will be detected before development is approved or not, the pre-construction surveys must be done between early March and early September. More than one pre-construction survey may have to occur in different seasons, depending on the life histories of the other covered species in the area.

I4-23 There is no evidence provided or studies mentioned in the NBHCP that have proved that large amounts of noise and disturbance a half mile away will not cause nest abandonment. It seems as though loud machinery and humans working one half mile away would still be loud and disruptive to nesting Swainson's hawks. I recommend that the NBHCP provide this evidence needed. If that information is not provided, I recommend that upon the first day of development until the Swainson's hawks leave their nests, biologists tri-weekly (or more) monitor all nests that are 0.5-1 mile away from development. If nest abandonment occurs for example at a nest 0.6 miles away from development, all development that is in the Basin that is within 0.6 miles of any active nest must be immediately stopped until the birds have left to migrate south. Biologists should also monitor the behavior and success of all the Swainson's hawks in those nest trees. A dramatic change in behavior or chick mortality is probably the result of development

I4-23 nearby and if this becomes a pattern with more than 1 nest within 0.5-1 mile of development, then development should also be stopped until the hawks migrate south.

I4-24 The NBHCP fails to define what an impacted nesting tree is and the NBHCP is not convincing enough in justifying why a nesting tree should be allowed to be impacted by development. The proposed measures (planting 15 sapling trees in a preserve) to be taken after the impaction of a nesting tree also do not convince me that suitable habitat will be provided soon enough and well enough. Therefore, no nesting trees should be impacted. Cutting down trees should be seen as a direct take of the bird and it's 1-4 chicks that it produces every year.

I4-25 I don't think it is right to cut down any nesting trees. However, if nesting trees are going to be removed, there should definitely be a limit as to *how many* nesting trees can be removed in the Basin. I don't find any sort of limit mentioned anywhere. And what exactly defines "unavoidable"? How and when is cutting down a tree unavoidable?

I4-26 Due to the high density of current nest sites within the Zone, the potential for additional nest sites, the high value of riparian areas for nesting sites, the importance of the Central Valley in being one of the last places for Swainson's hawk populations to live, and the significant threat that development brings to the population of Swainson's hawks, *no development* should be allowed within the Zone or anywhere in the Basin that is within 1 mile of an active nest, unlike V- 8-9 of the NBHCP suggests. Development in these areas will result in permanent losses of nesting habitat, and the cumulative effects of habitat fragmentation caused by the proposed 252 acres of development will result in further losses.

I4-27 The writers of the HCP do not clearly say that there will be no more development in the Swainson's Hawk Zone beyond the 252 acres. Instead, it says that *if* the CDFG and USFWS approve, then more development *can* occur. If the 252 acres of development goes ahead, I think that absolutely no more development should be allowed in the Swainson's Hawk Zone. Their original habitat has been and will continue to be encroached upon enough.

The following statement is misleading because development in the Zone is not being avoided: "The NBHCP's primary strategies to mitigate impacts to the Swainson's Hawk Zone caused by Authorized Development is to *avoid development* in the Swainson's Hawk Zone...."

I4-28 Research is a valuable tool and since the highest densities of Swainson's hawks occur in the Zone, this is a great area to research the biology of the hawks and to monitor population trends and behavior responses to development occurring in the Basin. Research should begin as soon as the NBHCP is passed and continue at least 5 years after development ends and preferably continue indeterminately as long as funding is available. This post development research will help to show how the population of hawks in the Basin recovered after development. If the hawk populations do poorly and are obviously threatened, then more riparian or other suitable nesting habitat should be required to be provided that has proper foraging areas nearby, since placement of nests is dependent on proximity to foraging habitats that are entirely different from the vegetation selected for nest sites. Monitoring Swainson's hawk populations and behavior should occur in the Zone and if possible in the newly reserved areas.

I4-29 The 0.5:1 mitigation ratio of replaced to developed land in the NBHCP is not high enough!! Higher mitigation ratios are being proposed in other HCP's in the Central Valley that also have Swainson's hawks and preserving only half of the land that will be developed will most likely result in mortality of Swainson's hawks as suitable habitat continues to be developed.

It is important to maintain the *same amount* of suitable foraging habitat *within* 10 miles of the active nest that will be developed because: suitable habitat available to Swainson's hawks needs to be large (at the landscape level), proximity to foraging habitats is important to Swainson's hawks' success, these hawks will travel 10 miles or more (up to 18 miles) to forage, loss of foraging habitat may eliminate territories, and more distance from suitable foraging habitats results in fewer fledging young.

If my recommendation on allowing *no development* to occur in the Swainson's Hawk Zone is not carried out, I recommend for every acre of development that occurs within the Zone *and* for every acre of development that occurs anywhere in the Basin that is within 1 mile of an active nest, that 3 acres or more of the same habitat type be preserved. For example, if 250 acres of riparian habitat is developed within the Zone, 750 acres of riparian habitat must be preserved outside of the Zone (since the Zone is already preserved). If this ratio is still not approved, I strongly recommend that *at least* a 1:1 mitigation ratio be implemented. Anything less than that is completely unacceptable, giving the importance of nest site areas. To maintain foraging habitat, I recommend that a replaced: developed mitigation ratio ranging from 1:1 to 3:1 will be applied for any land that is developed from 1 to 10 miles away from an active nest and that this preserved land is within the 10 mile radius zone from the active nest. The NBHCP mitigation ratio is not large enough! I4-29

I have 2 concerns about taking away "less suitable" habitats and creating more "suitable" habitats at unequal ratios (25% upland habitat, 25% managed marsh, 50% rice production). The first is, what may be suitable to one species may not be suitable to another species. My second concern is the amount and percentage of each habitat that should be preserved. At least half and preferably 100% of the amount of each habitat types that exist now should be preserved in the future (whether it be in or outside the project area), as soon as possible and development should happen slowly. All habitat types that exist now should also exist after development. Monitoring of wildlife populations should occur throughout the project area to determine the reaction of wildlife to development. I4-30

This statement is misleading: "Of the 53,537 acre Natomas Basin, about 7,267 acres were already developed in 1997, leaving a balance of 46,270 acres of undeveloped and agricultural land (NBHCP, IV-1)." If 17,500 more acres were developed as proposed, the reader would likely assume that 28,770 acres would be left as open space consisting of undeveloped and agriculture land. However, in a letter written by Friend's of the Swainson's Hawk, wrote that the NBHCP envisions 17,500 acres of new urban development added to the already 4,400 acres already developed, 3,000 acres of airport and highway use, and 4,400 acres of airport buffer lands (FOSH 2002). This leaves 24,237 acres to be left as open space, not 28,770 acres. I4-31

I oppose the additional 10,000 acres of development proposed by the City/ County Joint Vision MOU for the Natomas Basin. In order to prevent that devastating possibility, no more than 17,500 acres of urban development should occur in the Basin. If all of that additional 10,000 acres is developed in the project area, there will not be enough land left to preserve if the 1:1 mitigation ratio is implemented. 10,000 acres would need to be preserved and only about 5,000 acres of open space would be left after 10,000 more acres of development. It is crucial to protect what biodiversity is left in CA before it is almost completely covered with development. I4-32

Even if there are more rules laid out in the current draft NBHCP than in the 1997 NBHCP to enforce stricter mitigation, I don't see how finding willing sellers is going to get any easier all of a sudden than it has been since 1997. In fact it should get harder with increased land speculation. How does TNBC plan to acquire more preserve lands in the future when they obviously haven't been able to acquire enough land in the past and they have acquired absolutely no riparian habitat? I4-33

I4-34 Acquiring large blocks of reserve lands sounds great on paper in the NBHCP, but I doubt it is really feasible, and especially not feasible to acquire *enough* sufficient habitat for all of the many species that occur in the Basin. I do not suggest preserving smaller blocks of land. I suggest less development, which would allow for more realistic availability of large blocks of preserve lands. The harsh reality of not being able to acquire reserve land easily (or at all) is yet another reason why I oppose so much development to occur in the Natomas Basin. Even if half of the land developed is preserved, mass amounts of plants and wildlife losses are bound to occur. Yet, I doubt that the TNBC will even be able to acquire that much land and I doubt it will be in enough time to make a difference to the wildlife that is in need of a large suitable habitat. Less development should occur in the NBHCP.

Creating habitat that is suitable to the wildlife that lost their habitat due to development, seems to sound better on paper than actually implementing. What is planned to be done if the created habitat does *not* support the covered species and how will anyone know if the habitat is not supporting the wildlife?

I4-35 The NBHCP mentions the buffer space that is needed between airports and reserves but it fails to address the idea that even less land will be available to acquire and establish as preserves with the buffer that will protect wildlife species. This issue should be addressed in the NBHCP and considered when promising 8,950 acres of preserve lands to be established. I suggest less land being developed in the first place.

I4-36 I expect the following statement to be upheld and not broken: "TNBC system of reserves will be managed and maintained in perpetuity, providing permanent habitat for the Covered Species" (NBHCP, IV-6).

I4-37 The NBHCP fails to address how corridors will be provided for land locomotive species. This needs to be addressed.

I4-38 The NBHCP also fails to address the issue of hunting in detail. The hunting areas and regulations need to be established and they need to be in areas where Covered Species will not be negatively affected. This should be discussed in the NBHCP.

I4-39 I suggest that at least one chunk of 400 acres minimum of riparian land be preserved outside of the Zone, once mitigation procedures proceed with development. The Fisherman Lake area would be a great place to set up a preserve.

Riparian areas along with suitable foraging areas nearby are crucial to the survival of Swainson's hawks, making Fisherman's Lake and the Sacramento River to the west very important areas. The area is also important because Swainson's hawks already inhabit the area, it is identified in all major environmental studies and recommended by GGS experts as habitat that should be preserved, to date no lands have been preserved south of Elverta Road, airport buffer lands in this area add to preserve for cumulative species benefit, the area is not zoned for development, it supports both upland and wetland species, and it is part of the historic slough linking the American Lakes. The Lake is also located close to the growing suburban population, west of I-5 on Del Paso Road and needs to be protected from encroaching development. Houses have already been built just to the east of the Lake and the owner of the land between the new houses and Fisherman's Lake wants permission to build more houses. However, Swainson's hawks nest very close to this site. Special care must be taken to avoid development into this area around Fisherman Lake.

For all of these reasons, I agree with Friends of the Swainson's Hawk (FOSH) in recommending that all the land south of I-5, west of El Centro, east of the Sacramento River, and north of I-80, that is not already developed, be acquired as a preserve (Lamare pers. comm). Managing this land around Fisherman's Lake to maximize the habitat value and to restore the land is very important. Most of this

land should be managed for Swainson's Hawk foraging. The lake and immediately surrounding area should be managed to support giant garter snakes. Along with FOSH, I request that the southerly 300 acres of Metro Airpark not be developed. This is a marshy area (originally in floodplain) that links to the area south of I-5 and forms part of the connectivity and it has also been used by white tailed kite as well as Swainson's Hawk (Lamare pers. comm). Most important, I agree with FOSH in suggesting that there must be full protection of a corridor going north from Fisherman's Lake under I-5, connecting with other preserve lands to maintain connectivity. If these requests are not met, there should at the very least be significant additional protection for the lake banks and trees in the Fisherman Lake area.

I4-39

I4-40 Lastly, If 17,500 acres of development are allowed, I suggest that absolutely no other additional development should ever be allowed and it should be written and agreed upon in the final NBHCP.

Final request

I4-41 Since I devoted so much time to researching and then writing this letter, I would greatly appreciate answers to my questions and any other thoughts you may have about my letter. I did this in my spare time in between classes and studying, so I may have missed information that was in the NBHCP that I thought was not there. Please inform me if I missed any crucial information that was presented in the NBHCP and please take my concerns into account when writing and approving the final NBHCP.

Sincerely,

Kim Gagnon

References

Baughman, M.J. and C. Vogt. 1996. Growing Black Walnut. http://www.extension.umn.edu/distribution/naturalresources/DD0505.html. Accessed on 12/02/02.

Bechard, M.J. 1982. Effect of vegetative cover on foraging site selection by Swainson's Hawk. Condor 84: 153-159.

Biosystems Analysis, Inc. 1989. Endangered Species Alert Program Manual: Species Accounts and Procedures. Southern California Edison Environmental Affairs Division.

Bloom, P.H. 1980. The status of the Swainson's Hawk in CDFG Fed. Aid in Wildlife Restoration Proj. W-54-R12. 42pp.

Bureau of Land Management (BLM). The Snake River Birds of Prey National Conservation Area, ID. Swainson's Hawk (*Buteo swainsoni*). http://www.id.blm.gov/bopnca/swainson.htm#reprod Accessed on 11/12/02.

California Department of Fish and Game (CDFG). 1993. Five year status review: Swainson's Hawk (*Buteo swainsoni*). Sacramento, California.

City of Sacramento, City hall. Sutter County, Natomas Basin Conservancy. July 2002. Draft Natomas Basin Habitat Conservation Plan (NBHCP).

Deukmejian, G., G.K. Van Vleck, and J. Partain. 1998. A guide to Wildlife Habitats of California.

England, A.S. Swainson's Hawk (*Buteo swainsoni*). http://www.ca.blm.gov/cdd/swainhawk1.PDF. Accessed on 10/10/02.

England, A.S., J.A. Estep, and W.R. Holt. 1995. Nest-site selection and reproductive performance of urban-nesting Swainson's Hawks in the Central Valley of California. J. Raptor Res. 29: 179-186.

England, A.S., M.J. Bechard, and C.S. Houston. 1997. Swainson's Hawk (*Buteo swainsoni*). *In*: A. Poole and F. Gill (eds.), The Birds of North America, No. 265. The Academy of Natural Sci., Philadelphia, PA, and the American Ornithologists' Union, Washington, D.C.

Estep, J.A. 1989. Biology, movements, and habitat relationships of the Swainson's Hawk in the Central Valley of California, 1986-87. Calif. Dep. Fish Game, Nongame Bird and Mammal Section Report.

Friends of the Swainson's Hawk (FOSH). Fisherman's Lake Preserve and Restoration http://www.swainsonshawk.org/FLPreserve.html. Accessed on 10/10/02 a.

FOSH. Please Take Action Today to Protect Endangered Species. http://www.swainsonshawk.org/actiontoday9.html. Accessed on 10/20/02 b.

FOSH. 2002c. Proposed ECOS Position on proposed city/county "Joint Vision for Natomas" MOU for Sept. 4 2002 ECOS Board meeting. http://www.ecosacramento.net/natomas_resolution.htm. Accessed on 10/30/02.

Garrett, K. and J. Dunn. 1981. Birds of southern California: status and distribution. Los Angeles Audubon Society, Los Angeles, California.

Lamare, J. 2002. Email exchange. 12/02/02.

Planning and Conservation League and PCL Foundation (PCL). Growth in California. http://www.pcl.org/water%20bond/report/growth%20in%20california.html. Accessed on 11/12/02.

Roberts, J. 2002. Email exchange. 10/21/02.

San Joaquin County of Governments (SJCOG). 2000. San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

Swainson's Hawk (SWHA). August 2002. http://www.scwa2.com/HCP/SWAINSON_S_HAWK_account1.htm. Accessed on 10/03/02.

The Natomas Basin Conservancy (TNBC). 11/12/02. Conservancy adds new preserves. http:www.natomasbasin.org/modules.php?op=modload&name=News&file=article&sid=21. Accessed on 12/02/02.

U.S. Fish and Wildlife Service (USFWS). October 1999. http://pacificnews.fws.gov/news/1999/965.htm. Accessed on 10/10/02.

U.S.F.W.S. and CDFG. 10/02/96. Yolo County Habitat Conservation Plan: A Plan to Mitigate Biological Impacts from Urban Development in Yolo County, Public Hearing Document.

Woodbridge, B., K.K. Finley, and P.H. Bloom. 1995. Reproductive performance, age structure, and natal dispersal of Swainson's Hawks in Argentina. J. Raptor Res. 29:187-192.

Woodbridge, B. 1998. California partners in flight riparian bird conservation plan for the Swainson's hawk. Point Reyes Bird Observatory. http://www.prbo.org/calpif/htmldocs/species/riparian/swhaacct.html. Accessed on 10/10/02.

12

Eric C. Hansen
Consulting Environmental Biologist

5065 Tuckerman Way
Sacramento, CA 95835

Phone/Fax 916-928-0208
Mobile 916-214-7848

December 5, 2002

To: **Field Supervisor**
Fish and Wildlife Services
Sacramento Fish and Wildlife Service Office
2800 Cottage Way, W-2605
Sacramento, CA 95825 Fax: (916) 414-6711

Re: **Public Review and Comment upon July 2002 Draft Natomas Basin Habitat Conservation Plan (NBHCP) and Draft Environmental Impact Report/ Environmental Impact Statement (DEIR/EIS)**

Dear Sir or Madam:

I5-1 The following comments specifically address issues concerning the giant garter snake (*Thamnophis gigas*) (GGS) within the Natomas Basin. Comments are based upon a literally lifelong experience with GGS in Natomas and are a compilation of my experience with GGS experts George E. Hansen, Glenn D. Wylie, and years of intensive personal study of GGS, both within the American Basin and throughout its remaining range in the Central Valley. I currently possess a valid a USFWS 10(a)(1)(A) Recovery Permit (TE-018177-1 Expires 05/15/2005) and CDFG Wildlife Collecting Permit and Memorandum of Understanding (801112-02 Expires 08-06-2004) expressly permitting intensive research studies of the giant garter snake throughout the entirety of its range. Comments are organized within categories pertinent to GGS ecology and life history that I feel are critical to the success of the NBHCP, but are not necessarily listed in order of importance. Miscellaneous comments are included within subsequent sections at the end of the document.

I5-2 The NBHCP possesses three elementary, yet highly pertinent deficiencies that fail to ensure the persistence of the giant garter snake within the Natomas Basin throughout the 50-year life of the conservation plan. These deficiencies are summarized briefly as follows:

I5-3 1) The one-half to one mitigation ratio is inadequate given the geographic location of proposed development and the failure to account for temporary impacts to population dynamics while replacement habitat develops to maturity. While ditches and drains provide the most stable, permanent habitat for GGS in the Basin, the NBHCP fails to provide either protection or mitigation for this well-documented habitat, and therefore cannot guarantee the that GGS will persist here indefinitely.

I5-4 2) Without the protection of existing populations *in situ*, there is no scientific evidence to suggest that replacement habitat will succeed for target species such as GGS.

I5-5 3) Should source populations persist, with or without direct protection, the NBHCP, fails to provide adequate guarantees of connectivity between source populations and replacement habitat, without which establishment of new populations or the relocation of existing populations cannot occur.

I. Mitigation

A. *The Draft NBHCP fails to ensure that replacement habitat is established prior to the destruction of existing habitat and therefore cannot support mitigating below parity.*

I5-6 Hansen and Brode's report on the Status and Future Management of the Giant Garter Snake (*Thamnophis gigas*) Within the Southern American Basin, Sacramento and Sutter Counties, California (1992) asserts that newly created GGS habitat takes several years to mature. Canals that were relocated in 1988 during the widening of SR 99/70 were not recolonized despite the re-establishment of vegetation and known prey species and the presence of giant garter snakes immediately nearby (22). Hansen and Brode suggest that replacement habitats may take as long as 3-5 years to mature to the extent that they are able to support resident populations of GGS (22). "Recruitment to the general population of GGS will be reduced because of lost habitat and the loss or displacement of adult GGS during this time" (22). **The NBHCP fails to address issues of population dynamics, and to account for the decline of GGS while replacement habitat develops to maturity.**

I5-7 The U.S. Geological Survey Biological Resources Division (BRD) Monitoring Giant Garter Snakes at Colusa National Wildlife Refuge 2000 Progress Report noted the use of newly created marsh habitat by three radio-tagged GGS. However, instances of habitat use were singular events and occurred adjacent to ditches supporting high densities of established GGS. These instances do not assure that preserves that are removed from established populations will experience similar success. While these results indicate promise for the success of habitat restoration within the Natomas Basin, they also indicate that even habitat surrounded by dense populations of GGS do not support resident GGS by themselves within the first year (see above). Because monitoring of GGS response to wetland restoration is a work in progress, time to maturation of habitat and concurrent impacts to source populations of GGS are unknown and cannot be predicted with accuracy. **Therefore, the assertion of the NBHCP that post-development replacement of habitat will sustain population of GGS within the Basin indefinitely is unfounded, and is based in no way upon sound, scientific data or knowledge.**

Hansen and Brode's four-year study on the Results of Relocating Canal Habitat of the Giant Garter Snake (*Thamnophis gigas*) During the Widening of State Route 99/70 in Sacramento and Sutter Counties, California (1993) emphasize, "Replacement or supplemental habitat should be constructed as soon as possible after a conservation plan is approved (23). They also stress that "the success of recolonization and the time required to achieve it will be key factors in determining appropriate mitigation" (23). Such criteria are absent from the NBHCP. Under the NBHCP, replacement habitat is required no sooner than 50 years following the destruction of core habitat. In addition, the destruction of core habitat is allowed to occur prior to demonstrating the efficacy of restoration measures. **Thus, the post-development mitigation strategy of the Preferred Alternative is unsound, and violates the NBHCP's Overall Goals and Objectives to provide a preserve system that "...provides habitat for existing, and new viable populations of Covered Species" and that will "ensure that direct impacts of Authorized Development upon Covered Species are avoided or maximized to the maximum extent practicable" (I-15).**

IS-8

B. One-half to one mitigation fails to compensate for population declines that occur between the destruction of existing habitat and the maturation of replacement habitat.

Hansen and Brode (1993) suggest that, "Replacement of existing habitat requires compensation at a 2:1 or greater ratio to achieve viable GGS population levels. Compensation greater than parity is required to overcome interim population declines that occur during the time between destruction of the original habitat and the maturation of the new habitat" (35). **The NBHCP fails to account for this aspect of GGS population dynamics and therefore fails to adequately mitigate for impacts to existing populations of GGS (see above).**

IS-9

The NBHCP justifies the low mitigation ratio by asserting "...that the effective habitat reserve ratio is actually higher than the 0.5-to-1 ratio, because not all lands to be developed under the NBHCP permits are of high value to the covered species as habitat. Because portions of the Natomas currently have marginal value as habitat, and because all land to be developed in the Basin will be subject to mitigation fees, in some cases the 0.5-to-1 mitigation ratio will result in a substantial increase in overall habitat value" (IV-5, 6). **This approach places greater emphasis upon creating new, unoccupied habitat than the more sensible approach of preserving species in place (see below).**

IS-10

In addition to placing greater emphasis upon replacement habitat than the direct, applied preservation of existing populations of covered species, the premise that the 0.5-to-1 mitigation ration may result in an increase in habitat value fails to account for the fact that proposed development (NBHCP Figures 2 and 3) displaces some of the most significant populations of GGS in the Basin (NBHCP Figure 12). Replacement habitat, while possessing the greater proportion of recognized desirable habitat characteristics, is still inferior to more marginal habitat that actually supports GGS. **Therefore, there is no**

IS-11

IS-11 **evidence that GGS habitat will be mitigated near parity and that populations can therefore be sustained within the Natomas Basin under the Proposed Alternative.**

IS-12 In fact, it is likely that critical populations of GGS will be destroyed before functional preserves are created elsewhere. BRD's Investigations of Giant Garter Snakes in the Natomas Basin: 2000 Field Season notes that, "In some cases development projects in the southern end of the Basin will destroy local snake populations, particularly when there is no avenue of escape from construction activity" (3). GGS historically utilized native annual and perennial wetlands within the Natomas Basin that were located predominantly within the southern end of the Basin (NBHCP Figure 5). BRD and California Natural Diversity Database records indicate several occurrences of GGS in this area within recent decades that have been extirpated by subsequent development. **Therefore, 0.5-to-1 mitigation fails to account for these losses and their subsequent impact upon GGS population dynamics (see above).**

C. *The NBHCP and DEIS/EIR fail to adequately address the potential and most likely declines in Natomas Basin GGS populations.*

IS-13 The DEIS/EIR contends that, "A BRD study conducted from 1998 to 1999 recorded 277 individual GGS in the Natomas Basin. It should be noted that these occurrences are in addition to the 38 recorded in the California Natural Diversity Database...The most recent giant garter snake survey information (Wylie, 2001) showed that fewer giant garter snakes were captured relative to previous years, but this does not necessarily mean that the giant garter snake population in the Natomas Basin is in decline" (3-39). **This statement, which downplays the potential for a contemporary decline in GGS populations, fails to take adequate caution in regard to the formulation of sound mitigation strategy, and violates the NBHCP's Overall Goal and Objective to provide a preserve system that will "ensure that direct impacts of Authorized Development upon Covered Species are avoided or maximized to the maximum extent practicable" (I-15).**

BRD states that GGS are being noted in lower numbers than in previous years. Distortion of historical captures downplays the significance of historical trend in decline. The NBHCP does not mention the observation of 685 sightings, and 225 hand-only captures of GGS in a limited survey area during Hansen and Brode's four-year study on the Results of Relocating Canal Habitat of the Giant Garter Snake (*Thamnophis gigas*) During the Widening of State Route 99/70 in Sacramento and Sutter Counties, California (23). These captures were made by one individual, by hand only, while BRD utilized a large field crew employing both hand-capture protocols as well as the use of floating aquatic traps, which function 24 hours per day. BRD numbers dropped from 81 in 2000, to 31 in 2001, yet this decline in the number Basin-wide GGS observations is not addressed in the NBHCP. It should also be noted, that the NBHCP unwittingly distorts the perception of historical population numbers by comparing BRD observations with CNDDB locality records (see above). The NBHCP fails to mention that CNDDB records represent multiple occurrences as a single record (e.g. CNDDB occurrence No. 43 is a single occurrence record representing ten individual GGS at Pritchard Lake). **The 0.5-to-**

IS-13 **1 mitigation ratio cannot be approved until the demographics of Natomas Basin GGS are better understood.**

IS-14 While were at it, why don't we briefly mention Pritchard Lake and the fact that there may be a great deal of degradation out there that has not been documented. Hey, talk about the importance of Lone Tree Rd canal in Hansen and Brode 1992 and the decline in habitat value and capture success observed by USGS studies and personal observations. This area still has not recovered and in fact possessed virtually no vegetation during 2002. I can vouch for this personally. All indicates a relatively undocumented decline in overall habitat value that is not accounted for in the NBHCP and the mitigation ratio prescribed within the Preferred Alternative.

*D. **The NBHCP fails to ensure stable populations of GGS necessary to seed replacement habitat; therefore GGS populations must be preserved in place (in situ mitigation)***

IS-15 Mitigation strategy within the NBHCP relies exclusively upon the preservation of habitat, rather than the more sensible preservation of Covered Species *in situ*. While this may work, at least hypothetically, for highly mobile or transient species such as the Swainson's Hawk which can fly between suitable areas, it is far less effective for a species such as GGS that, while being mobile, depends upon a very limited set of aquatic transit opportunities (i.e. drainage ditches and canals) to reach replacement habitat (see above).

The NBHCP has been "established to allow some development to occur within the Natomas Basin, while ensuring that habitat values are maintained, and, to the maximum extent practical, increased within the Natomas Basin" (I-17). In the context of the NBHCP "habitat value" is based solely upon a suite of characters associated with the successful establishment of GGS. Logically, habitat is of far greater value when supporting an existing population of the target species, but is not dealt with thusly within the NBHCP.

Without protecting existing populations, there is absolutely no guarantee that source populations will persist, or that protected species such as the GGS that rely on extremely specific dispersal corridors to migrate between source populations will be able to reach replacement habitat. It is obvious that replacement habitat will experience a greater degree of rapid immigration of target species in those cases where stable source populations are immediately adjacent. There is no scientific evidence, rigorous or otherwise, that suggests that canals within the Natomas Basin currently exist in such a state that long-range migration of GGS will be possible (see above). **In order to provide the greatest likelihood of this species survival under the Proposed Alternative, it will be necessary to protect existing populations of GGS until reserves are well established and are shown to support new or immigrant populations of GGS.**

E. The NBHCP provides no mechanism for assuring that preserve acquisitions are made within or adjacent to established populations of GGS.

I5-16 The NBHCP's overall acquisition criteria (IV-15, 16) do not adequately consider proximity to known populations of GGS. With respect to the selection of rice fields for inclusion in the reserve system the NBHCP does indicate that "rice fields will generally be selected that are within, or that have connectivity to, known giant garter snake populations or known occupied giant garter snake habitat" (IV-22). Canals, more than rice, are responsible for sustaining permanent populations of GGS (see below), but receive absolutely no guarantee of protection, nor do they receive any consideration for direct acquisition as mitigation. The NBHCP provides no guarantee of mitigation near or adjacent to established populations of GGS. Rather, acquisition of preserve land is based upon availability by willing sellers. **Therefore, acquisition criteria do not provide sufficient means of ensuring that source populations necessary to reserve success are sustained.**

Item II—Connectivity

A. The NBHCP fails to adequately protect connectivity between reserves and existing, occupied habitat.

I5-17 GGS move around move in response to changing habitat conditions in order to find suitable sources of food, cover and prey. Changing agricultural regimes and the rotation of crop types create an ever-changing mosaic of available habitat within the Natomas Basin that is acknowledged by the NBHCP. "Thus, connectivity between canals and ditches in different areas and between these systems and other habitat types is extremely important for genetic interchange and ability to find summer habitat" (II-13). An overall objective of the NBHCP is to "ensure connectivity between TNBC reserves to minimize habitat fragmentation and species isolation. Connections between reserves will generally take the form of common property boundaries between reserves, waterways (primarily irrigation and drainage channels) passing between reserves and/or an interlinking network of water supply channels and canals" (I-15). **The NBHCP fails to provide this protection.**

"As evidenced on Figure 17, the channels of RD 1000 and Natomas Mutual are extensive throughout the Natomas Basin...and provide substantial connectivity between the existing TNBC Preserves. It is important to note that the system of canals identified on Figure 17, are anticipated to remain to serve both urban development anticipated to occur and also provide the backbone of canal connections between reserves " (IV-8). **The NBHCP fails to address the quality of this canal system in regard to GGS.**

In fact, the NBHCP states that "GGS may use stretches of unvegetated canals as dispersal corridors; however, they typically do not remain in such canals long because without

cover they are vulnerable to predation" (II-10). The overwhelming majority of this connectivity in the southern portion of the Natomas Basin lies within the City Sphere of Influence, is bounded immediately by urban development, possesses no buffer of any sort as is provided for replacement habitat (see above), and is subject to persistent maintenance practices implicated in preventing establishment by GGS (see below). **This system cannot be relied upon to provide adequate connectivity.**

The NBHCP states, "The primary opportunity for connectivity between individual reserves is the system of channels maintained and operated by RD 100 and Natomas Mutual. Under the management of RD 1000 and Natomas Mutual, this system of canals will be managed to enhance habitat values and minimize harm to covered species as specified in the NBHCP" (IV-8). However, Hansen and Brode's four-year study on the Results of Relocating Canal Habitat of the Giant Garter Snake (*Thamnophis gigas*) During the Widening of State Route 99/70 in Sacramento and Sutter Counties, California (1993) states " although it was determined that giant garter snakes had the ability to travel the distances required to colonize the new canals, none of the new canals studied provided suitable giant garter snake habitat by the end of the four-year study, and none were colonized by giant garter snakes. Continual or annual grading were the main factors that prevented the establishment of vegetative cover and other physical attributes of giant garter snake habitat" (abstract). This condition of the East Drainage Canal adjacent to SR 99/70 persists to today, and this area has not shown to support giant garter snakes (E. Hansen, unpublished notes). Furthermore, BRD Investigations of the Giant Garter Snake within the Natomas Basin: 2001 Field Season attributes a shift by GGS from the North Main Canal ("Snake Alley") to ditches along rice fields to the west" (2), implicating current canal maintenance practices in the displacement of GGS. While the NBHCP provides an outline of recommended maintenance practices for this system of Canals (V-29), it provided no assurance of adherence by the water agencies nor does it provide any mechanism for monitoring or enforcement. **Therefore the NBHCP fails to meet the primary objective "to ensure connectivity between TNBC reserves to minimize habitat fragmentation and species isolation" (I-15).**

I5-17

B. The NBHCP fails to mitigate the loss of connectivity between reserves and existing, occupied habitat.

BRD's Investigations of Giant Garter Snakes in the Natomas Basin: 2001 Field Season notes that," Apart from physical construction and other land development in the Natomas Basin, large blocks of land are being fallowed in anticipation of development. Giant garter snakes are being negatively impacted by this development even before development occurs" (3). This loss of habitat contributes to fragmentation and eliminates connectivity that is not accounted for in the NBHCP.

I5-18

C. NBHCP does not provide adequate protection for existing drainage ditches and canals.

Hansen and Brode's report on the Status and Future Management of the Giant Garter Snake (*Thamnophis gigas*) Within the Southern American Basin, Sacramento and Sutter Counties, California (1992) recommends that "buffers between GGS habitat and urban development should extend at least 100 feet from the outside edge of the GGS habitat (levee toe or maintenance road) to a boundary fence. The buffer should consist of at least 75 feet of native or ruderal vegetation with 15 to 20 of bare ground along the boundary fence" (19). The conceptual mitigation plan presented by Hansen and Brode calls for protection of the canals, and includes buffers for these connective corridors (21).

The NBHCP conservation strategy emphasizes maintaining connectivity between TNBC reserves to allow giant garter snake movement within the Natomas Basin. This species is highlighted for two reasons: 1) giant garter snake is the most prevalent Covered Species within the Basin that requires land/water connectivity to travel within the Basin, and 2) if adequate connectivity is provided for giant garter snake, then it is anticipated that other Covered Species will also be afforded adequate opportunities to migrate within the Basin" (IV-8). While the NBHCP stresses the importance of connecting corridors to the overall success of the conservation program (1-15), it does not provide the same protections for these corridors, nor does it incorporate potential acquisition or maintenance of these programs as a part of the proposed mitigation. In fact, while the NBHCP proposes setback zones for mitigation parcels that "shall be situated a minimum of 800 feet from existing urban lands or lands that are designated for urban uses in an adopted general plan... [Lands] such that direct and indirect effects of such development are significantly incompatible with the objectives and purposes of the reserve system" (IV-II)..." it does not provide this same protection for the connection between preserves upon which the success of the preserve system relies.

I5-19

Hansen and Brode's four-year study on the Results of Relocating Canal Habitat of the Giant Garter Snake (*Thamnophis gigas*) During the Widening of State Route 99/70 in Sacramento and Sutter Counties, California illustrates that while rice is important temporary habitat during the GGS active season, it is only useful during the portion of the active season when rice has emerged above the water surface and prey has become established (Figure 17). Results of BRD radiotelemetry studies of female GGS support this (NBHCP II-13). In fact, it is the presence of drainage ditches and canals associated with rice agriculture that are responsible for providing the "(1) water, including permanent water that persists through the summer months; (2) emergent, aquatic vegetation and steep, vegetated banks for cover; and (3) and abundant food supply" (NBHCP II-11) and cracks, burrows, and winter refuge sites that allow GGS to persist in times that rice is not mature to the extent that it provides habitat. Simply preserving rice agriculture within the Natomas Basin does not guarantee that GGS can persist here, nor that ditches and drains accompanying rice agriculture will be maintained in a fashion consistent with the needs of GGS. **For this reason, it is necessary that specific protection of canals, ditches and drains be incorporated as part of the NBHCP's recovery strategy.**

Item III—Alternatives

While all of the deficiencies of the NBHCP listed above have serious implications regarding the survival of GGS within the Natomas Basin, impacts stemming from insufficient mitigation, a failure to guarantee persistent connective corridors between reserves, and failure to promote preservation of GGS *in situ* can be significantly reduced by the five DEIR/EIS Alternatives (2-49).

Alternative 1—increases mitigation to a 1:1 ratio, thereby increasing both the amount of land preserved for target species and the likelihood of preserving some habitat *in situ.*

Alternative 2—would be based upon the habitat value of the land to be developed, and would include up to a 3:1 ratio for the highest-value habitat for giant garter snakes (2-49). This would provide the same benefits of Alternative 1, and would assure mitigation above parity, thereby offsetting the population declines likely to occur in response to habitat destruction before reserves develop to maturity. **This is the biologically preferred alternative.**

IS-20

Alternative 3—would confine acquisition of preserve lands to biologically superior habitat areas. This alternative would increase the likelihood of preserving habitat *in situ*, but provides no other direct means of stabilizing population dynamics or offsetting the population declines likely to occur in response to habitat destruction before reserves develop to maturity.

Alternative 4—would reduce potential take by reducing the amount of development within the Basin, but would fail to mitigate for impacts already accrued in anticipation of development and would provide no other means of stabilizing population dynamics or offsetting the population declines likely to occur in response to habitat destruction before reserves develop to maturity.

Alternative 5—is a "no action alternative" and would provide species benefits quite similar to those of Alternative 4.

Item VII—Errors

1. Incomplete species description—Giant Garter Snake

IS-21

The NBHCP states that, "the giant garter snake was formerly listed as a sub-species of *Thamnophis elegans* but was elevated to full species status as *T. gigas*" (II-9). This is incomplete. GGS has undergone a lengthy series of taxonomic revisions that include characterizations as a subspecies of *T. ordinoides*, *T. elegans*, and *T. couchii*. Ultimately, an evaluation of morphological traits teamed with existing biochemical data prompted a recommendation to reclassify GGS as a unique species, *Thamnophis gigas*. The shift,

I5-21 therefore, occurred between classifications as *T. couchii gigas* to a unique species, rather than from *T. elegans gigas* as the NBHCP suggests.

2. Incorrect species name—Western Spadefoot

I5-22 The NBHCP describes the Western Spadefoot (which is not a true toad of the family *Bufonidae*, but instead belongs to the family *Pelobatidae*) as *Scaphiopus intermontanous* (II-32). This refers to the Great Basin Spadefoot. The correct name, which is contained in most tables within the NBHCP and DEIR/EIS, is *S. hammondii*.

Thank you,

Eric C. Hansen
Consulting Environmental Biologist

References Cited

Brode, J., and G. Hansen. 1992. Status and future management of the giant garter snake (Thamnophis gigas) within the southern American Basin, Sacramento and Sutter Counties, California. California Department of Fish and Game, Inland Fisheries Division.

Hansen, G.E. and J.M. Brode. 1993. Results of relocating canal habitat of the giant garter snake (Thamnophis gigas) during widening of State Route 99/70 in Sacramento and Sutter Counties, California. Final report for Caltrans Interagency Agreement 03E325 (FG7550) (FY 87/88-91-92). Unpublished. 36 pp

Wylie, Glenn D. and Casazza, Michael L.; Martin, L; Hansen, E. 2000a. Investigations of Giant Garter Snakes in the Natomas Basin: 2000 Field Season. Dixon Field Station: U.S. Geological Survey Western Ecological Research Center: 6924 Tremont Road; Dixon, CA 95620.

Wylie, Glenn D. and Casazza, Michael L.; Carpenter N. 2000. Monitoring Giant Garter Snakes at Colusa National Wildlife Refuge: 2000 Progress Report. Dixon Field Station; U.S. Geological Survey Western Ecological Research Center; 6924 Tremont Road: Dixon, CA 95620.

Wylie, Glenn D. and Casazza, Michael L. 2000. Investigations of Giant Garter Snakes in the Natomas Basin: 2001 Field Season. Dixon Field Station; U.S. Geological Survey Western Ecological Research Center; 6924 Tremont Road: Dixon, CA 95620.

DANIEL B. HRDY, M.D.
21440 ROAD 87
WINTERS, CALIFORNIA 95694
PHONE (530) 661-9225 FAX (530) 661-3633

September 4, 2002

Field Supervisor
United States Fish & Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

Re: Natomas Basin Habitat Conservation Plan

Dear Madam or Sir:

I6-1 I object to the NBHCP. Mitigation should be at least a 1:1 ratio of mitigation to developed land. This is customary in other projects that I am familiar with. Mitigation at a lower rate results in a net loss of habitat, and is plainly inadequate. I have been told that it is highly unusual, if not unheard of, for HCPs in California to have a ratio lower than 1:1 and many are higher. There should be no exception in this case, and I do not believe that an exception can be justified.

I6-2 I also think that the mitigation should take place in the Natomas Basin. It defeats the purpose of mitigation to mitigate far away from the target area. Out-of-basin mitigation in Sutter County (Area "B") should not be allowed.

Sincerely,

Daniel B. Hrdy, M.D.

DBH/gm

10K

Field Supervisor,
Fish and Wildlife Services
2800 Cottage Way, W-2605
Sacramento, CA 95825

11/10/02

Dear Sirs;

I7-1 In answering the draft EIR/EIS for the Natomas Basin Habitat Conservation Plan, the cause of the loss of habitat in the Natomas Basin is mainly from urbanization of the area. Subdivision ground is selling from $45,000 to $80,000 per acre.

As the Scramento and Sutter County planners allowed the area to be urbanized, the owners of any private property, taken to mitigate the loss of habitat, should therefore be rembursed as if it were subdivision ground.

Yours truly,

Burton H. Lauppe

Burton H. Lauppe
11000 Garden Hwy
Sacramento, CA 95837

(14)

9-02-02

Field Supervisor –

The enclosed: The Politics of North Natomas is my comment on the draft Natomas basin habitat conservation plan and its environmental impact statement if I have to do them writing let me know.

I8-1

RECEIVED
SEP 03 2002
SACRAMENTO FIELD OFFICE

Thank-you

Mr. Frank McCormack
927 Park Ranch Way
Sacramento, CA 95831

427-6313

Finis Coronat Opus!

12

THE POLITICS OF NORTH NATOMAS

arduous
la: hard to accomplish or achieve: DIFFICULT
b: marked by great labor or effort

It's pretty hard to get any stability, however, when you consider that it wasn't until 1986, three years after we purchased the Kings, that we even knew we would be playing in a permanent home. That nice new ARCO Arena that opened the 1988-89 season didn't just happen by chance. It took years of beating our heads against the wall until we even knew we would be allowed to build it. But I suppose that's because building an arena or stadium in North Natomas, where it made sense, was from the outset entangled in a political controversy that started in the early 1960s. Things were a lot less com-

plicated then, that's for sure.

After three years of study, the Sacramento City Council in 1962 adopted the Natomas Development plan that called for total development of that area. The plan envisioned a regional shopping center — that later became Sunrise Mall, out in the county — construction of two intercontinental highways, Interstates 5 and 80, and massive commercial and residential development in North Natomas.

But the mood of the community had changed, and as politics shifted left in the late 1960s and 1970s, growth and development became the bad guy. Developers suddenly were all villans in black hats; the environmentalists were all heroes. Land that had been targeted for development, like North Natomas, was suddenly more valuable to the community as "prime farmland," whether it was prime or not. In the early 1970s, when Anne Rudin and Phil Isenberg were just starting out on the City Council, the city reversed the plan and declared North Natomas off-limits to development. So our plans to build a sports complex out there were swimming against the current from the beginning.

But by 1983, we bought the team, the Chamber of Commerce came out with its report on the tremendous economic advantage of having professional sports franchises, and the public was once again focusing on re-zoning North Natomas. The issue really got crystallized in the 1983 mayor's race, which, in the end, became a campaign with only one big issue — should North Natomas be re-zoned for a sports complex?

As early as 1979, when she was running for her third four-year term on the City Council, Anne Rudin made her position clear. "I frankly don't care if we have a stadium or not in Sacramento," Rudin was quoted in the *Bee's* September 13th edition. We got nowhere on the Natomas stadium issue for a long time and the City Council seemed to put us off indefinitely on April 13, 1982 when it voted 7 to 2 to keep Natomas off limits to developers for at least another five years.

But by 1983, with the team in hand, people started to believe us when we said we wanted to bring major league sports to Sacramento. Although a lot of people still said we were greedy developers trying to rob the public, we had credibility on the sports issue. The mood was changing also due to the work of Michael Seward and the Chamber of Commerce. Seward and City Councilman, David Shore, faced off on the issue in an article in the *Sacramento Union* that ran July 3, 1983. Seward, in a cheerleading approach applauded by the SSA, said it made economic sense for the area to be opened to development, since its position between two freeways would be easy to get to. He also pointed out the phenomenal economic boon sports franchises are to a city with their non-polluting, labor-intensive qualities. Shore argued that the developers were asking for a free lunch. It would cost the taxpayer millions to pay for police and fire protection and roads and other services needed for the complex, Shore said. But he never mentioned that whatever the public paid for — and we were asking for no public money — would be easily offset by the tax and other revenues created by the project.

As mentioned earlier, we backed Ross Relles in the 1983 mayor's race, but not, as Anne Rudin maintained, because we were enamored of him or thought he'd be a great mayor. He was also not our front man in the election as Rudin suggested. He was running, he

supported the stadium in Natomas, so we supported him.

I became part of Relles' steering committee in the race and I told his staff from the very start that the stadium was going to be the number one issue in the race. It was, but when the September 27, primary results were in, even I was shocked. Relles, a political newcomer himself, finished first in the field with 19,817 votes. Rudin was second with 18,638 votes. Serna was the odd man out with 16,814 votes, finishing third in a five-candidate field.

Even though Relles finished first, he would have two major problems in the runoff against Rudin. The city was predominantly Democratic, so Republican Relles would be in a position of having to take Serna's Democratic votes from Rudin. The second problem and the one that would ultimately spell defeat for Relles was the fact that he really was a one-issue candidate. I remember calling Relles on the day of his final television debate with Rudin to implore him to talk about other issues. He needed to quit harping on the stadium and to broaden his base if he was going to win. I pleaded with him to talk about the city's police protection, fixing pot holes in the streets, taxes — anything but the sports complex. On election eve, a confident Relles claimed victory and relaxed while watching Monday Night Football. Rudin and her supporters, meanwhile, were calling as many registered voters as possible, primarily women, in an effort to get out a big vote the following day for their candidate. On Tuesday, November 8, 1983, Anne Rudin became the first woman to be elected Mayor of Sacramento — City Councilwoman Belle Cooledge was appointed mayor in 1948 — and she beat

a one-issue political novice by fewer than 1,000 votes. I had put everything I had into the Relles campaign and was exhausted and depressed when he lost. I went into hiding for a week and just escaped into television fantasyland by renting about 20 movie videos to recoup from exhaustion.

Even though it was hard to see the end of our struggle, especially with Rudin's election, we continued to plug away.

A *Bee* headline two days after the election was phophetic. It said, "North Natomas Stadium May Win Despite Relles' Loss." The three new council members — Tom Chinn, Grantland Johnson and Bill Smallman — were the reason for the headline. The make-up of City Council was shifting in our direction.

In January, 1983, the Gateway Point Sports, Recreation and Corporate Center, later to be renamed Capital Gateway, was formed. And the Spink Corporation, a planning and engineering firm, was hired to begin planning for the Gateway Point Properties, 1,620 acres east of Interstate 5, south of Del Paso Road and north of Interstate 80. Ron Smith, a partner in Spink, led the effort. All of the land was in the city and the owners of Capital Gateway were the SSA, with its 435 acres right in the middle; Sacramento Savings and Loan; Bell Savings and Loan; Centennial Group and the RJB and JB companies. The other owners all knew that they had no prayer of getting their land re-zoned unless we built the sports facilities. So Lukenbill got the group to sign a $100 million guarantee, written on SSA stationary, and, with Gary Bricker and Ron Smith, presented it at a November 1, 1983 press conference.

Signed by all the principals, the letter said: "To dem-

onstrate sincerity and resolve in connection with this project, the property owners headed by the Sacramento Sports Association are prepared today to make the following commitment to the people of Sacramento. (1) the stadium, arena and parking will be built by a group headed by the Sacramento Sports Association and entirely at that developer's expense, that is at no cost whatever to the taxpayers; (2) the property owners will also absorb all costs and incur all expenses necessary to construct freeway interchanges and roads and to provide for water, sewer, drainage, utilities and freeway landscaping." There was a third provision in the letter to guarantee that we would pay the $7 million fine to the Environmental Protection Agency for building in the area and tapping into the sewer line. The purpose of the letter was to dispel allegations once and for all that the taxpayers' pockets would be picked.

This was also a calculated political move to draw attention away from alternative sites, like Delta Shores in the south part of Sacramento, that Rudin and others were touting. We figured the $100 million guarantee would ride Relles right into the mayor's office. That didn't happen, but there was victory for us in defeat. Rudin won, but so did new council members Grantland Johnson, Tom Chinn and Bill Smallman. With the re-elections of Doug Pope and Joe Serna, we figured that we had a majority on City Council that would approve our re-zoning — finally — if we could get through the bureaucracy that is the planning process.

With the new faces on Council, Lukenbill was optimistic. We all were. The main reason for the optimism was Joe Serna. Serna met with Lukenbill and me right after the Indiana Pacers deal fell through and all but

guaranteed that if we landed a franchise we'd get our re-zoning approved. Acquisition of a pro team, Serna told us, would prove to the City Council that the SSA was sincere about bringing sports to Sacramento. It would squelch the cry of our opponents that we were "just greedy developers trying to re-zone for a profit." So Lukenbill called his bluff and bought the Kings for $10.5 million, hoping the permits and zoning would be handled expeditiously. But of course, that was not to be.

Our application to re-zone 1,620 acres in North Natomas was submitted to the city's planning department on Tuesday, December 13, 1983, after eight months of work by the property owners and the Spink Corporation to come up with a quality plan for the area. Lukenbill and political consultant, Maurice Read would meet with each council person individually during this period to give them all an update of the plan and incorporate their input, if any. Lukenbill wanted the arena proposal processed separately and quickly. His back was against the wall. The lease in Kansas City's Kemper Arena, the home of the Kings, was about to expire and negotiations to renew the lease would have to begin. The last thing Lukenbill wanted to do was build a temporary arena in the county, just outside the city limits, until the 1,620 acres could be studied.

But City Attorney Jim Jackson said, "fast-tracking" the arena was impossible. The cumulative impact on the entire area had to be studied, Jackson said. So Lukenbill had three choices. He could sell the team, renegotiate the Kemper lease or build the temporary arena. Selling the team was out of the question and he didn't want to commit himself to more years in Kan-

sas City. That would only delay getting a franchise in Sacramento. He had one choice — building a temporary arena, moving the team here and proving that he meant business and that Sacramento was, indeed, a big-league city.

Exactly what Gregg feared would happen in North Natomas happened — each Council member had his or her own idea of what to do and the arena got bogged down while discussions centered on how to deal with the large area in totality. Each Council member had an agenda or special interest to pursue. Lynn Robbie wanted a resolution to reaffirm the no-growth policy for North Natomas. Serna wanted a greenbelt to be included in any re-zoning. Johnson was concerned about jobs. Rudin wanted study sessions. But all the resolutions and ideas came to a head in January when Joe Serna got the City Council to approve on a five to four vote his resolution asking for an expeditious processing of the Gateway Point application. That at least meant that the proposal would be studied on its merits instead of being automatically shot down under the city's old policy that no growth would occur in North Natomas.

But the City Council would again flip-flop on how to best proceed in the area. Johnson, a very shrewd politician, introduced a resolution at a February, 1984, meeting to call for a full North Natomas Community plan, complete with an area-wide environmental impact report. That took us completely by surprise and, as far as we were concerned, seemed to blow sports in Natomas out of the water for all the delay it was going to cause.

But the politicians' silver bullet strategy, to study a project to death, did not apply this time. The three

council members in support of the SSA — Chinn, Pope and Smallman — voted against the resolution because they figured it would force an endless study of the situation. Rudin and Robbie voted for the "study-it-to death" resolution. Kastanis and Shore, who had been riding the fence, went along with it, too. The other yes votes were from Johnson and Serna, who believed that Rudin and Robbie would be hard pressed to vote against a sports complex later down the road if it were included in a comprehensive community plan.

The *Bee*'s editorial after the Council's flip flop best summed up the proceedings. "Based on Tuesday's City Council performance — during which none of the members seemed to know what they were doing, and after which no two seemed to agree about what they had done — it would be fair to say that the city's handling of this year's major development issue is a thorough mess," the editorial said. "In a meeting that the mayor seemed unable to control — or for that matter to fathom — the council appeared to switch its policy on planning for the North Natomas area 180 degrees from what it was only last month."

The city had agreed to do what our opposition, ECOS, had suggested. Instead of the 1,620-acre re-zone we were all but guaranteed if we bought a team, it would ambitiously study a much larger area, 9,300 total acres, and require a thorough environmental review of the whole area. ECOS never stopped fighting, as was obvious when it filed lawsuits after we finally had our victory with the bureaucracy. At this stage in the process it appealed to City Council after the City Planning Commission, on a five to two vote, approved the lengthy environmental impact report on the community plan. The Council

rejected ECOS' appeal, but the whole process consumed more than three years and cost taxpayers and the property owners more than $4 million in time and money. In delays over a five-year period, Capital Gateway lost about $25 million and the city lost millions in taxes that would have been generated that much earlier. During the arduous planning process, the SSA cooperated fully with the city. By law, the city was obligated to process our application within a year after it was submitted. As a gesture of good faith, we signed a waiver relieving the city of the time limit. I sent SWA, the city's lead consultant, stadium and arena information it could incorporate into its fact-finding study. But the information had to be channeled to the city first because City Attorney Jim Jackson wanted to ensure objectivity in the planning process and to make sure neither ECOS nor anyone else accused the city of making decisions in secret. But the city attorney's caution did not create the desired objectivity. Instead, the opposite occurred and we were suspicious of the whole arrangement. If we were not able to communicate directly with the consultants who were doing the city's work, we doubted very much that the results would be very workable and would not reflect an understanding of the peculiarities of Sacramento. I never even knew if the information that I submitted to the city had been forwarded to the consultants.

Sure enough, when SWA's preliminary plans came out they looked as if they were created in a total vacuum and Lukenbill was furious. SWA laid out three scenarios for developing the area, but only one included a stadium. They also had a 200-acre golf course with no clue about who would pay for it. The economics were

unworkable and Lukenbill would strike back in the newspapers a few months later when he said the consultants were consultants and not developers because they knew nothing about development. The plans were flawed, pure and simple. For one thing, the city's consultants had the sports complex abutting the freeway. Common sense dictated that the sports complex should be placed as far from the freeway as possible so it would not conflict with interstate travel. If there were to be miles of cars backed up it would be better to have them on surface streets within a complex to avoid traffic congestion.

In a defensive posture, the SSA hired its own consultants and the war of the consultants was on. If the city's consultants produced a two-foot stack of maps and studies, Capital Gateway produced a like amount of paperwork with usually opposite conclusions and findings.

The area under study for the community plan was 22 square miles — 7,800 acres within the city limits and an additional 1,500 acres in the county for a total of 9,300 acres. The largest potential re-zoning in city history, the area was equal to six Sacramento downtowns. Finally, after years of meetings, debate, studies and delay the proposed North Natomas Community Plan came before the City Council on February 6, 1986. The moment of truth was at hand. All public testimony, pro and con, had been heard at previous meetings. After initial discussion, Councilman Pope offered the resolution in support of the plan. It was seconded by Councilman Kastanis. The 17-page resolution took up eight pages on shorthand reporter Eileen Jennings' typewriter.

The first two paragraphs set the tone for the resolution as Pope said: "Needless to say, after a couple of years of discussion on this Community Plan and for me over eight years of speeches and reading staff reports and deliberations about North Natomas, I know each of us on this Council recognizes the opportunity that we have to make a decision that perhaps will have one of the most dramatic impacts on the direction of growth in the metropolitan Sacramento area.

"The proposed Plan, I think, that's before us will set a standard in my mind and I think in the rest of the Council's mind for excellence in planning for this community. The Plan possesses greater benefits, I think, than any other community plan that's been adopted in the history of Sacramento." Councilwoman Lynn Robbie then introduced a substitute motion to separate the re-zone of the 9,300 acres from the sports complex issue. It was seconded by Mayor Rudin, who had wanted the issues separated all along. But this was not to be. City Attorney Jackson said Robbie's substitute motion would wipe out the original motion. After some discussion, Robbie took another approach. She introduced other amendments to the motion on a variety of issues: air quality, the Natomas Airport, Regional Transit rights-of-way and others that would delay or stall the issue. After each one was discussed, she came back full circle and once again tried to separate the issues. Roberts Rules of Order were sorely tested that night and Robbie got little sympathy from the Council when she said: "I want this voted on separately and I want it voted on separately for a very clear reason. The clear reason is that I am not opposed to the stadium and I want my constituents to clearly understand that

I'm not opposed to this stadium. I do not want this in the newspaper tomorrow with the idea that there were seven to two against the stadium. I want the people in District 8 to understand that I'm just as much of a Kings' fan as anybody else and I want it voted on separately. I don't think that's asking too much."

Despite their wanting to separate the issue on this final vote, both Rudin and Robbie had strongly supported the concept of a community-wide plan when Council decided to go that way two and a half years earlier. They had voted to spend a lot of taxpayer money to study the full 9,300 acres and we thought it was only fair that they now abide by what the plan had come up with, which, after Lukenbill was finally able to persuade some Council members, was a level of development, including the sports complex, that was pretty close to what we said was needed to economically justify the privately financed sports complex. Rudin, who a few years earlier opposed our original 435 acre re-zone request, said on this night, "I think we're re-zoning too large an area." She seemed to forget that the latest plan was not the SSA's plan, however. It was the city's. If she would not abide by the community plan why did she support the study? If she thought the SSA would shrivel and die during that time she was mistaken. But this time the die had been cast in our favor and the votes were already with us.

There was one more delay, though, because all politicians love to talk and each wanted to get his or her two cents in before this historic vote. The plan was described as "bold" by Johnson. Shore said it was a "beginning." Serna referred to the planning process as "rigorous." Smallman said it was "exciting." Kastanis

saw it as an "opportunity" while Robbie said the density was "too high" and Rudin said the re-zoning raised too many "red flags." But Chinn made a prophetic comment when he said, "Fifteen years from now people will look back to this night and wonder why we had such a big fuss over this issue."

Mayor Rudin, knowing personal defeat for her hard-fought cause was imminent, showed some real class in her closing comments. "The plan will go forward and I'm going to pledge my efforts because I know it's going to be approved tonight. I'm going to pledge my efforts to make it work." She lost the war but she was still mayor and had to abide by what the City Council had decided. Even though a Natomas re-zoning was not her view of how the city should grow, she gracefully accepted the majority view. A resolution in support of the Natomas plan was passed 7 to 2. Lukenbill, who paced up and down the halls while the issue was being debated for what seemed like the millionth time, said the victory was the start of a lot of work. "All I've been trying to do is get permission for eight years."

I didn't go to that important meeting. I had been to hundreds of meetings on the issue for years. I tried not to but I took personally the oppositions' comments about greedy, disingenuous developers. I promised myself I wouldn't subject myself to it again. I timed it right and showed up instead at Richard Benvenuti's for the victory celebration. Richard praised Lukenbill for his hard work and commitment and Gregg in turn praised Jan, his wife, because she lived with the struggle for as long as anyone. I couldn't even get near Gregg that night to congratulate him because there were so many glad-handers who had circled around him and jumped on

the bandwagon now that we were finally victorious. So I left with my friend Tom Peterson, the food and beverage man, to share the moment with the people I was most comfortable with, the ARCO Arena staff.

We should have known that the opposition would keep fighting, even in defeat. The battle over Natomas would move up to a new level — the courts. ECOS and the Natomas Community Association filed the first suit on grounds that the Natomas Plan was in violation of the city's 1974 General Plan. A general plan is basically a blueprint for the city's future and the last one approved by the city declared North Natomas to be off limits to development. The Council, in approving the Natomas plan, was effectively amending the general plan, however, so the lawsuit was basically a procedural challenge. But there would be other lawsuits and appeals to the Natomas Plan, five lawsuits in all in 1986. The lawsuits and the city's ineptness, which created some of the lawsuits, had just about sapped my zeal and enthusiasm for the whole struggle that started when Gregg and I shook hands and agreed to start this crusade in 1978. The dream of a sports complex was dying a slow death in my heart while Gregg, the relentless one, kept plodding methodically toward his goal, almost oblivious to the explosion of lawsuits all around him.

I was especially devastated when some cruel vandals killed nearly 600 trees we had planted in the area. Some 471 were along Interstate 5 and another 127 young trees were destroyed two days later along I-80. They included valley oak, weeping willows, white alder, and my favorite, the redwood. The redwoods are the largest living things on earth. The giant sequoia lives for 3,500 years while its cousin,the coastal redwood, has

a life span of 2,200 years. I got a natural high each day when I drove by the beautiful new trees until on Monday morning April 6, 1987, the trees were destroyed as some sort of protest, no doubt, for the plans we finally had won approval on. I surveyed the damage with Jesus Orozco, the landscape superintendent, walking nearly an hour and touching every uprooted tree. Nearly two years of growth were cut down in a single night of mindless rampage.

Rick Eychensen, general manager for KFBK Radio, sparked the idea for a tree replanting. The SSA joined forces with the Sacramento Tree Foundation and the radio station to replace the trees. It was open to the public and two hundred nature lovers showed up on a bright Saturday morning to replant many of the trees. That was a happy day.

The formality of adopting the North Natomas plan was approved on May 13, 1986, with Anne Rudin the only dissenter in a 7 to 1 vote. Councilman Bill Smallman was absent.

I couldn't bear to join Lukenbill at the meeting or the victory party. I would have liked to share the moment with Luke but he was once again surrounded by anyone who played any part in the Natomas effort. I was selfish. I remembered the handshake eight years earlier when we were just a couple of crazy dreamers. We had pulled off what a lot of people thought was impossible. You can't fight City Hall and win. We did but we had two great allies inside City Hall — City Manager Walt Slipe and Deputy City Manager David Martinez. The win, though, took its pound of flesh. We now both knew politics and compromise. But the dream was fading. We both knew real hard work lie ahead. Politics was a necessity to overcome, but we never had any idea it would take eight long and bitter years.

Fifteen months later, worn out and exhausted by all the bull we had gone through, I retired from the SSA. When the City Council passed a resolution thanking me for my efforts, I got my last shot off on how I felt about Sacramento and North Natomas. The brief speech read:

"It is a great honor to be recognized by the political leaders of our community. I have lived practically my whole life in Sacramento, coming here as a one-year-old on my mother's knee in 1946. So I say to you from the bottom of my heart, as a 40 year resident of this community — I love Sacramento.

"There is a song that says: 'There ain't no good guys, there ain't no bad guys, there's only you and me, and we just disagree'."

"Obviously, there has been disagreement and debate over North Natomas but the policy decision has been made to go ahead with the construction of the arena, stadium, infrastructure and the PUD's."

"With your vision, your cooperation, your leadership, and with the city staff's daily diligence in implementing those policy decisions — I firmly believe that North Natomas will be a model for all communities in the United States."

"In conclusion, the orderly development of North Natomas will send a clear message around the country that Sacramento is no longer a re-active city, instead a pro-active city in its dedication to excellence; and I will only love Sacramento more because of it."

Draft Natomas Basin Habitat Conservation Plan and Draft EIS/EIR

Public Information Workshops and Open House

☐ Monday, September 23 (4:00-6:00 pm)
☐ Monday, September 23 (7:00-9:00 pm)
☐ Wednesday, September 25 (4:00-6:00 pm)
☐ Wednesday, September 25 (7:00-9:00 pm)

Please fill out the following so we can be sure to keep you on our mailing list and to document the author of comments received. Thank you.

Name: B. CHRIS McKENZIE

Address: P.O. Box 657 Pleasant Grove Ca. 95668

Organization: McKENZIE FARMS Phone: 916 655-3367
916 709-7885 Cell
916-655-3344 FAX

Please provide us with your written comments on the Draft HCP or EIR/EIS.

See attached - 3 pages -

Written Comments are due on October 28, 2002

FIELD SUPERVISOR
U.S. FISH AND WILDLIFE SERVICE
2800 COTTAGE WAY W-2605
SACRAMENTO, CA 95825-1846
(916) 414-6711 FAX

SIGNATURE: B Chris McKenzie

(Use back of form if you would like to provide more information)

McKENZIE FARMS
P.O. Box 657
Pleasant Grove California. 95668
(916) 655-3367 or fax (916) 655-3344

November 28, 2002

Field Supervisor
U.S. Fish and Wildlife Service
2800 Cottage Way w2605
Sacramento, California 95825-1846

Written Comments-Draft Natomas Basin Conservation Plan

I9-1

McKenzie Farms is a small family owned farming business. We have owned and farmed this property continuously since the 1950's. We grow rice, seed rice, wild rice, small grains, Vetch, and hay. Historically we gradually evolved from irregular dry land farming, to complex contour rice fields, to terrace paddies. My comments relate specifically to our property (approximately 350 acres) located north side of Riego Road, East of Pacific Ave., but many also apply to the contiguous lands to the north and east. I have personally conducted and supervised all farming on this property since my father's passing in 1985 on a daily basis. Since the 1960's I have become very familiar with the property and the beneficial aspects of rice farming in regard to wildlife support, habitat utilization, and broader environmental benefit to the area.

Soil series and characteristics are more typical of eastern mid valley elevations (Western Placer County, Sutter and Sacramento County East of the Plan area) having shallow mineral topsoil and hardpan. Our property and adjacent property to the north and east are higher in elevation and not serviced by Natomas Mutual Water Company and rely exclusively on deep wells for irrigation. This is generally the area shown in your Figure 7 Topographic map in the area above the 25foot elevation mark north of Riego road.

I feel the study and plan do not adequately address the uniqueness of this property in Sutter County, overstate the mitigation (incidental take impact) requirements, and threaten an arbitrary "taking " of our property rights without due process, validation, or compensation. Some of the specific factors are:

1. **Lack of permanent or permanently charged irrigation ditches.**

2. **Soil and drain ditch design. The only permanent drains are on the 4 borders of the property. They are intermittent and tend to dry up when the well water is turned off. Soil type (gravel or hardpan), steep ditch profile, and vegetation are not ideal for theGGS.**

3. **Crop rotation history (330 net farmable acres) of property usage changes almost annually. Unlike much of Natomas where rice is planted 9 of 10 years. Although all farm acreage is tilled once or more annually, our rotation includes rice, wild rice, vetch, fallow/cover crops, hay etc. Rice acreage in 2002 was 190 acres, 2001-127 acres rice, 2000 --123acres rice. Of this property 51 acres (3 year requirement) will be Certified Organic in 2003. Your figure #7 for the year 1993 confirms about 130 non-rice acres.**

4. **The property is not nor has ever been identified as:**

Adjacent or near any current or proposed habitat site (Figure 8)
Garter Snake habitat site or record (Figure 12)
No Swainson's Hawk nesting sites within 1 Mile (Figure 13)
No Other species sightings or records (Figure 14)

5. The above confirms over 50,000 hours of fieldwork and observations, which I have personally conducted over the last 25 years. I have never seen a GGS on that property. Swainson's hawks are rare usually only when attracted to feed at a burning field and do not hang around to compete with the red tail or marsh hawks. The only other covered species observed are the occasional burrowing owl, and the White Faced Ibis. The latter is of concern only because it has increased from non-existent in Natomas ten years ago, huge populations in recent years. They are becoming the dominant "wader" species posing a potential treat to other traditional nesting species (Avocet, Stilt, Ducks, etc.) as well as a crop depredation factor. The Ibis is has become a significant rice field pest in Asia.

I9-1

6. The proposal is discriminatory in that the cost of mitigation on one property is unrelated to the actual impact on covered species or habitat. The plan is also discriminatory in that nearly identical property located near by (within 2 miles) in Sutter and Placer counties is not subject to such mitigation requirements.

Additional Areas of Concern:

I9-2

A. Land owners are not allowed option of providing suitable mitigation lands or development rights within the designated areas. The acquisition, suitability, purchase, management, cost, and fee schedule appears to be the exclusive right and at the discretion of the operator. There needs to be a mechanism to insure that the exclusive rights of the operator do not distort the property values or unfairly manipulate the value of farm or mitigation land or create dramatically differing mitigation fees.

I9-3

B. The plan appears to require the landowner to pay an indeterminate ($10,000+/acre) to allow the operator to purchase existing farm (rice?) land at $4,000-5,000/acre, collect a fee, and lease it out to a person of his choice, and keep the rent and while reducing annual county tax payments. This appears to be the case on nearly ½ of the total proposed mitigation. The cost versus acquiring development rights from the landowner and allowing continued landowner farming/tenant arrangements is fractional. The proposed system will provide fail-safe wealth accumulation and cash flow as well as competitive inequities for landowners and farmers. Consideration should be given to establishing a bid or compensation system for farmers/landowners to grant habitat development rights for the designated portion of rice and farmed open space land.

I9-4

C. Care should be taken in the establishment of new habitats to avoid developing agricultural nuisance problems. Adequate buffers must be established to avoid normal agricultural use (spraying, etc), crop depredation, and importation of species, which may migrate or be upgraded and impact farming.

I9-5

D. I feel the plan is disproportionate in relation to prior land use in creating wetland (Marsh) habitat at the expense of upland habitat. California Quail and Pheasants have all but disappeared from the area but have not a sentence in the documents provided.

I9-6

E. I was struck by the lack of farmer landowner representation or participation in the process. This should be corrected, as one understands the area, property development, farm management, and plan impacts as well as active local farmers.

I9-7

I have spent most of my life keenly aware of the environmental impact of the food and habitat provided by farmers for nesting and migrating species. We have incurred considerable expense for decades to sustain a dwindling wild pheasant population, maintain water for (spring and fall) migrating waterfowl, encouraged waterfowl nesting, and managed the resource without a penny of recompense or hunting revenue. Each year our rice feeds thousands of people, tens of thousands of birds, reduces valley summer ozone, produces over 200 million gallons of oxygen, contributes to the economy and provides an exportable product to reduce an escalating balance of payments deficit. I feel this plan as proposed will be detrimental to sustaining private property and farm ownership, accelerate sale and development of farms, concentrate land ownership, and undermine farming.

I9-8

It has been extremely difficult task to list all comments and concerns raised in the hundreds of pages provided in your draft. There would be doubtless other concerns raised or satisfied with the many details on procedure, accountability, committee appointment, audit procedures, and legal remedies not clarified in the Draft Plan provided. I would appreciate the opportunity to explain my concerns, and better understand your proposed actions so vitally affecting our property and livelihood. Thank you for considering these informal comments please keep me notified of any meetings, proposals and/or actions concerning the progress of this plan.

B. Chris McKenzie- Manager