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## 10.0 PLAN IMPLEMENTATION

### 10.1 INTRODUCTION

This chapter describes the roles and responsibilities of the Plan Participants and Habitat Conservation Plan (HCP) implementing committees, initiating actions, implementation actions, reserve establishment and review requirements, assurances, and the process for revisions and amendments to the Solano HCP.

### 10.2 PLAN PARTICIPANTS

The following agencies are participants in the Solano HCP and will have primary responsibility for ensuring compliance with the HCP avoidance, minimization, and mitigation measures within their respective jurisdictions and authorities. In general, the Solano County Water Agency (SCWA) will assume overall responsibility for coordination, reporting, and oversight of the Conservation Program. The Plan Participants are:

- HCP Coordination, Solano Project Water Contract Administration
  - SCWA
- Irrigation Districts
  - Solano Irrigation District (SID)
  - Maine Prairie Water District (MPWD)
  - Reclamation District 2068 (RD 2068)
  - Dixon Resource Conservation District (Dixon RCD)
- Cities
  - City of Dixon
  - City of Fairfield
  - City of Rio Vista
  - City of Suisun City
  - City of Vacaville
  - City of Vallejo
- Special Districts
  - Vallejo Sanitation and Flood Control District (VSFCD)
  - Fairfield-Suisun Sewer District (FSSD)
  - Dixon Regional Watershed Joint Powers Authority (DRW JPA)

#### 10.2.1 Governance

The SCWA Board of Directors will serve as the governing board for the oversight of the Solano HCP. The SCWA Board of Directors is composed of the five members of the Solano County Board of Supervisors, the mayors from all seven cities in Solano County, and a board member from each of the three agricultural irrigation districts in the County (SID, MPWD, and RD 2068). The SCWA Board of Directors meets on a monthly basis.



The SCWA Board of Directors will act as the decision-making body for implementation and oversight of the Solano HCP. The Board's duties include, but are not limited to:

1. Adoption of annual operating budgets;
2. Approval of changes to annual impact fees;
3. Acceptance/denial of conservation easements or land dedications; and
4. Resolution of any Plan Participant disputes or differences between implementation and interpretation of avoidance, minimization, and mitigation measures or other HCP requirements.

### 10.2.2 Solano County Water Agency

SCWA staff will assume primary responsibility for coordination with the Resource Agencies and preparation of the annual compliance report based on information provided by each Plan Participant.

The SCWA responsibilities will include, but are not limited to:

1. Maintaining a regional database for the occurrence of Covered Species and development activities in compliance with the HCP monitoring and reporting requirements;
2. Preparing and submitting an annual report on the status of compliance with HCP implementation;
3. Coordinating HCP amendments;
4. Providing support for ongoing education for interested parties regarding the status of the HCP;
5. Collecting application and in-lieu impact fees from Plan Participants and disbursing these fees for appropriate conservation activities consistent with applicable HCP conservation strategies and Advisory Committee input;
6. Maintaining and developing annual budgets;
7. Implementing ongoing monitoring and adaptive management studies;
8. Establishing standard protocols for baseline surveys;
9. Managing and coordinating technical consultants and specialists, as necessary, to implement and monitor HCP compliance;
10. Certifying and maintaining a list of approved reserves, conservation areas, and mitigation banks in compliance with Solano HCP mitigation and conservation requirements;
11. Serving as the long-term land steward/management entity for reserves and preserves (such duties will most likely be contracted to a third party land trust or other management entity);
12. Coordinating applications for and disbursement of non-impact fee funding from grants and other sources to enhance HCP conservation programs;
13. Coordinating review and approval of reserve management plans and endowments or other funding mechanisms; and



14. Coordinating with Plan Participants, Resource Agencies, and an advisory group on an as-needed and appropriate basis to review HCP implementation.

### 10.2.3 Other Plan Participants

Local land use agencies and city Plan Participants will implement the Solano HCP primarily through their planning departments. Other Plan Participants (e.g., irrigation districts and special districts) will implement the applicable conservation actions through their executive director or designated representative. These Plan Participants will be responsible for the following actions within their respective jurisdictions and authorities:

1. Verify project-specific avoidance, minimization, and/or mitigation measure requirements for Covered Activities as well as eligible third parties seeking coverage under the HCP for Covered Activities within their respective jurisdictions.
2. Assure and document compliance with required avoidance, minimization, and mitigation measures.
3. Collect or verify that application and in-lieu impact fees have been paid prior to issuing grading permits or other project approvals that would affect Covered Species or Natural Communities.
4. Transfer application and in-lieu impact fees (or land acquisitions/easements provided in lieu of impact fees) to the SCWA.
5. Provide compliance data to the SCWA for preparation of the annual compliance report.

The Solano HCP conservation strategies rely on a variety of approaches for achieving desired habitat preservation and enhancement objectives. Private mitigation banks and land set-asides associated with development activities are expected to provide most of the habitat preservation and enhancement for Natural Communities and associated Covered Species and Special Management Species. For private and institutional mitigation banks, the long-term management structure, funding, and responsible management entities are provided under State and Federal mitigation banking requirements (US Army Corps of Engineers 1995). However, current monitoring requirements for established mitigation banks in Solano County, in general, do not fully address the range of long-term population studies required to comply with the Solano HCP monitoring and adaptive management requirements. Therefore, additional funds will be required for private and institutional mitigation banks to meet monitoring and adaptive management standards consistent with the Solano HCP. For the life of the HCP, effectiveness monitoring at these reserves will be partly funded through existing endowments established at each bank and supplemented with HCP development fees (see Chapter 11.0 for additional information). Banks may need to adjust their endowment funding in order to become certified under the Solano HCP. The SCWA will oversee monitoring at each site to ensure consistency in study implementation and analysis.

The SCWA will assume long-term management authority and ensure compliance with mandated management requirements for designated resource lands or will designate such authority to an appropriate, resource agency-approved local land trust, conservation organization, or other management entity. Funding shall be provided through a management endowment or other permanent funding mechanism to be developed and provided for each reserve area. HCP user fees will provide funding for effectiveness monitoring for the Solano HCP.



For conservation strategies involving the collection of in-lieu fees, the city Plan Participants will collect the fees and transfer them to the SCWA. The SCWA will then assume responsibility for disbursing these fees for appropriate conservation activities and programs consistent with the Solano HCP.

Once applicable State and Federal incidental take permits are issued, the Plan Participants will receive incidental take coverage for their own Covered Activities. Plan Participants will also be able to extend take authority to third parties over which the Plan Participants have direct regulatory control (e.g., through issuance of grading permits, occupancy permits, use permits) in order to assure compliance with required avoidance, minimization, and mitigation measures.

#### **10.2.4 Plan Participant Committee**

The SCWA and the other Plan Participants will form an Executive Committee similar to the Applicant Committee formed for preparing the Solano HCP. The Executive Committee will provide input from the individual Plan Participants and keep the Plan Participants informed on the status of the HCP.

#### **10.2.5 HCP Advisory Committee**

The SCWA and the other Plan Participants will form an Advisory Committee to provide guidance on implementation of the Solano HCP. The Advisory Committee will be comprised of representatives from the Plan Participants' agencies, the Resource Agencies, and members from the general public representing various environmental, land use, agricultural, and development interests similar to the HCP preparation steering committee. The purpose of the Advisory Committee will be to provide input and guidance on the use of in-lieu fees, preparation of grant applications, establishment and approval of reserve/preserve management plans and funding mechanisms, and general interpretation of HCP conservation strategies where the intent or applicability of the measures for a specific project may not be clear. (Note: Interpreting the HCP requirements is the responsibility of the permit holders and the issuing Resource Agency(ies); however, the agencies and permit holders may use and rely on recommendations from the Advisory Committee.)

#### **10.2.6 HCP Technical Review Committee**

The SCWA, Plan Participants, and Resource Agencies (see Section 10.2.7 below) will establish a Technical Review Committee that will meet regularly for the purpose of reviewing specific required documents for incidental take coverage under the Plan. The Committee will be responsible for evaluating complex applications under Sections 10.4 and 10.5 below, such as: (1) interpretation of baseline study results; (2) adequacy of management plans and associated funding for reserves; (3) restoration plans; (4) species relocation and establishment plans; and (5) documentation that a project complies with avoidance requirements and constitutes the least environmentally damaging practicable alternative for the project site as required under this HCP. The committee will advise applicants of all insufficient items, inadequate documentation or data needs, and will provide recommendations for project modifications needed for compliance with the Solano HCP.



The United States Army Corps of Engineers (Corps), United States Environmental Protection Agency (EPA), and Regional Water Quality Control Boards (RWQCBs) may also be invited to participate in this review committee as the Plan Participants desire to integrate Section 401 and Section 404 Clean Water Act compliance with the Federal Endangered Species Act (FESA) compliance under the HCP program.

### 10.2.7 Resource Agencies

The United States Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA NMFS) are the Resource Agencies that will issue the Federal and State incidental take permits and oversee implementation and compliance with the Solano HCP. The responsibilities or obligations of the Resource Agencies include:

1. Providing guidance to the Plan Participants for implementation and compliance of the Solano HCP;
2. Reviewing and commenting on annual compliance monitoring reports;
3. Assisting in resolving any potential issues associated with the interpretation of HCP conservation strategies where the intent or applicability of the avoidance, minimization, and mitigation measures are unclear;
4. Assisting the Plan Participants in attempting to secure State, Federal, and other sources of funding to expand Solano HCP conservation efforts; and
5. Providing technical assistance and support for establishing standard protocols for baseline surveys, implementation of avoidance, minimization, and mitigation measures, and review and assessment of monitoring and adaptive management actions.

### 10.2.8 Public

The Plan Participants intend to have a transparent decision-making process and expect the public to be fully involved in implementing the Solano HCP. Discretionary decisions regarding implementation of the HCP and most Plan Participant and Advisory Committee meetings will be open to the public. The only closed or restricted meetings would involve the following topics:

- **Personnel Issues:** Only to discuss the appointment, employment, performance evaluation, discipline, complaints about or dismissal of a specific employee or potential employee.
- **Pending Litigation:** Only if open discussion would prejudice the position of one or more of the Plan Participants that is or may become a party in the litigation.
- **Property Negotiations:** Only to discuss price or payment terms with an agency's identified bargaining agent. However, final price and payment terms must be disclosed when the actual lease or contract is discussed for approval.

## 10.3 HCP INITIATING ACTIONS

The Plan Participants will enter into an Implementing Agreement with the Resource Agencies (USFWS, NOAA NMFS, and CDFG). The Implementing Agreement defines the roles and



responsibilities of the parties under the Solano HCP for implementing the regional conservation strategy and the terms of the incidental take permits issued by the Resource Agencies. The Implementing Agreement also describes the legal remedies should any party fail to meet its obligations under the HCP and the terms of the incidental take permits. The Final Solano HCP and Implementing Agreement will need to be adopted and approved by the Plan Participants and submitted to the Resource Agencies in support of the application for Federal and State incidental take permits. A joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS), prepared in compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), will be completed by SCWA (acting as the local lead agency for the Plan Participants under CEQA) and the USFWS (as the Federal lead agency for NEPA) and distributed for public review prior to certification and permit issuance.

The Plan Participants may also need to adopt local ordinances or amend local plans and policies, as necessary, to implement the Solano HCP.

#### 10.4 AUTHORIZATION OF INCIDENTAL TAKE

Upon issuance of the incidental take permits from the Resource Agencies, each Plan Participant, as a permit holder, will be authorized for incidental take of Solano HCP Covered Species for permitted/Covered Activities conducted directly by the Plan Participant. Such activities will be conducted consistent with the terms and conditions of the Federal 10(a)(1)(B) permit and State 2081 Incidental Take Permit and the Solano HCP conservation program. Plan Participants may also extend incidental take coverage for Covered Activities conducted by third parties who fall under their direct regulatory control. Conditions for granting incidental take for activities conducted by Plan Participants or third parties include:

- Authorization for incidental take by permit holders and/or eligible third parties shall occur upon verification that the applicable conservation strategies for avoidance, minimization, and/or mitigation have been satisfied or that applicable construction period avoidance and protection measures have been implemented. For example, grading permits or other approvals that could result in the loss or conversion of natural communities/habitat may not be issued until proof is provided that applicable avoidance, minimization, and mitigation measures have been implemented. The local participating agency shall document applicable avoidance, minimization, and mitigation measures as conditions of approval in their final approval for the project; and
- Authorization for incidental take provided to the Plan Participants as permit holders and eligible third parties shall run concurrently with the specific land development or other Covered Activity. Coverage shall extend through completion of Covered Activities, including completion of construction pursuant to individual building permits granted in accordance with land development approvals. Incidental take coverage may be extended to subsequent owners or interests other than the original third party to whom the incidental take was extended provided the transferee complies with all terms and conditions and notifies the applicable permit holder/Plan Participant of the change.

Incidental take coverage shall not exceed the term of the permits (30 years) unless:

1. Final project conditions of approval have been given prior to expiration of the Solano HCP permits; and



2. All work subject to the project approvals identified in the incidental take permits is completed within 48 months of receiving the approvals; and
3. The permit holder/Plan Participant secures an extension of the applicable incidental take permits prior to their expiration pursuant to the plan amendment procedures described in Section 10.10. The extension may be issued for a period of up to 4 years and shall allow completion of specified projects authorized under the Solano HCP, but for which Covered Activities have not yet been completed; or
4. The incidental take permits are renewed pursuant to Section 10.10.3 of the Solano HCP.

Under the Solano HCP, the use of commercial or institutional mitigation banks is encouraged if such banks are certified in the official banking agreement/enabling instrument as suitable for the species/habitat being impacted by a Covered Activity (e.g., provide in-kind mitigation). Banks and individual/project-specific mitigation projects must also meet minimum reserve management, monitoring, and funding standards consistent with Section 10.5. Banks and individual mitigation projects meeting these standards will be certified by the SCWA for use in mitigating Solano HCP Covered Activities. When appropriate “in-kind” opportunities may not exist or be practicable, a project proponent may obtain approval from the local lead agency, USFWS, NOAA NMFS, CDFG, and other relevant Resource Agencies to use alternative or out-of-kind mitigation. Acceptance of out-of-kind mitigation shall be based on the following criteria: provide a demonstrable benefit (e.g., net gain in biological value to the species and/or habitats impacted) to the biological resources in the region, and such gains shall be consistent with and further the overall HCP conservation goals.

#### 10.4.1 Procedures for Determining Avoidance, Minimization, and Mitigation Measure Requirements

The following describes the basic approach for determining the applicable conservation requirements for Covered Activities to be conducted by Plan Participants or where incidental take coverage is requested by regulated third parties. When possible, applicants are encouraged to submit pre-application packages to the local lead agency/Plan Participant for initial review and coordination.

1. Pre-application packages shall clearly identify the location of the project with respect to the Natural Community boundaries (see Figure 4-1) and designated conservation areas (see figures in Chapter 4.0). Initial or pre-application site surveys shall also be conducted to characterize the site’s biological resources (e.g., community type such as grassland, vernal pool grassland, oak woodland) and identify the presence of important resources such as wetlands and riparian habitats/stream courses. This site information shall also be used to assess the need for and types of surveys required to determine applicable avoidance, minimization, and mitigation measures. Minimum project identification requirements for a biological resources report shall include:
  - a. The location clearly depicted on a map;
  - b. A description of where the project is in relation to the Natural Community boundaries (Figure 4-1);
  - c. A site fact sheet with the parcel number(s), legal owner, applicant (if different than owner), local lead agency/Plan Participant, local lead agency tracking number and contact; and
  - d. A project purpose and description.



Specific data requirements for each Natural Community and/or Covered Species are provided in Section 6.2.

2. Complete applications shall include the project information described above and the following:
  - a. A biological resources report that provides information on cover types/plant communities, project site location relative to Solano HCP Natural Community Conservation Areas, a summary of recorded/known occurrences of Covered Species and Special Management Species within 1 mile (mi) of the site (minimum sources shall include the Solano HCP database and the California Natural Diversity Database [CNDDDB]), and a wetland delineation<sup>1</sup>. Supplemental surveys to assess Swainson's hawk and burrowing owl nesting shall also be conducted for a 0.25 mi buffer around each project site.

The reports shall include at minimum: survey dates and times; names, affiliations, and qualifications of biologists conducting the surveys; and survey results and conclusions, including maps of identified locations of Covered Species or Special Management Species, vegetation types, the extent of wetlands and channels, stream/channel order, and other wildlife habitat features. Pre-application survey reports shall also contain CNDDDB Native Species Survey forms for all Covered and Special Management Species encountered on a site.

Habitat or vegetation community mapping shall include the entire project site and a 250-foot (ft) buffer (300 ft in Callippe Silverspot Butterfly Conservation Areas). Mapping and assessment of features within the buffer may be accomplished using aerial photographs.

Section 6.2 identifies specific habitat identification criteria for each Natural Community and species-specific survey requirements (e.g., is a project located in a conservation area where detailed species-specific pre-application surveys are required?). The purpose of the surveys is to determine whether species-specific avoidance and compensation measures will be required. Where species-specific surveys are required, the SCWA will provide standard survey protocols. In general, survey results will remain valid for a period of 3 years. The SCWA will also maintain a list of certified consultants that may conduct these studies.

In general, the level of survey shall be commensurate with the potential impacts to Covered Species and the conservation value of the project site. Projects on small (less than 5 acres [ac]) in-fill lots within existing city limits (as of the effective date of the HCP) that are surrounded by urban development on at least three sides<sup>2</sup> are not considered to be important for conservation purposes and are generally exempt from in-depth habitat surveys. However, even small in-fill projects will be required to comply with wetland protection, compensation, and permitting requirements, and with mitigation and protection measures for burrowing owl and Swainson's hawk nests. Documentation requirements for such sites include an assessment of the presence of wetlands, streams or their tributaries,

<sup>1</sup> Procedures and criteria presented in *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and applicable technical clarifications and updates shall be used to define and delineate wetlands. Draft delineations (e.g., consultant prepared but unverified by the Corps) may be submitted as part of the pre-application report. However, final determination of applicable conservation requirements will be based upon verified delineations.

<sup>2</sup> This definition is intended to be consistent with the intent of Class 32 Categorical Exemption as defined in Section 15332 of the CEQA Guidelines.



elderberry plants, and burrowing owl and Swainson's hawk nesting activity. Projects in certain, limited high value conservation areas could require up to 2 years of appropriately timed surveys. In lieu of completing species-specific surveys, applicants may assume the presence of listed species in all suitable habitats (as determined by the SCWA in consultation with the Resource Agencies) and implement applicable avoidance and minimization measures (Section 5.3) and appropriate avoidance, minimization, and mitigation measures (Chapter 6.0). Future modifications or alternative procedures may be adopted upon concurrence by the Resource Agencies.

Note that the presence of wetlands and streams/tributaries is based on applicable technical criteria established by the Corps regardless of jurisdictional issues that may not be based on biological considerations (e.g., the lack of Corps Section 404 jurisdiction on a site is based on factors other than just the presence of wetlands).

- b. Justification for direct impacts (fill) of wetlands, stream, riparian, and species habitats is required for all areas in Covered Activity Zones 2 and 3 and in certain areas in Covered Activity Zone 1 (e.g., high value conservation areas, areas where wetlands contribute to the value of adjacent preserves, and in breeding/nursery sites for several species [see Chapter 6.0]). Justification for such impacts shall be based on the practicability of avoidance based on cost, logistics, and technology. Such evaluations shall follow the EPA 404(b)(1) guidelines for assessing the feasibility of alternatives to minimize impacts to aquatic resources (see Section 6.1.1), except that only on-site alternatives need be considered for compliance with the Solano HCP. Note that compliance with this condition does not supersede or obviate the need for compliance with other State or Federal agency application requirements, procedures, and permits.
  - c. Applicants are also encouraged to submit other relevant information for determining avoidance, minimization, and mitigation measure requirements such as stream order and vernal pool complex boundaries based on criteria presented in the applicable community or species conservation strategies (Chapter 6.0).
3. Plan Participants, acting as the CEQA lead agency and permit holder, shall evaluate the avoidance, minimization, and mitigation requirements for each project consistent with applicable community and species conservation requirements in the HCP (Chapter 6.0). Generally, the identification of applicable conservation requirements would be addressed and reviewed as part of CEQA compliance for a project or administrative approvals for projects that are exempt from CEQA. For projects involving impacts to wetland communities, lead agencies shall rely on verified Corps jurisdictional determinations for the extent of wetlands that are waters of the United States. For isolated waters/waters of the State, RWQCB jurisdiction, if available, or other best available information may be utilized for area and boundary determinations.
  4. Prior to issuing final approvals such as grading or use permits that could result in the take of Covered Species, lead agency Plan Participants shall verify compliance with applicable avoidance, minimization, and mitigation measures as specified in the Solano HCP. Compliance may take the form of a certificate of purchase of mitigation credits/land at an approved conservation or mitigation bank; payment of in-lieu impact fees to the appropriate agency; or acceptance of fee title, conservation easement, or other appropriate conservation mechanism for preserve lands along with approved management plans (if required) and management funding mechanism. Incidental take coverage for on- or off-site reserves that have not been established through the Federal mitigation banking program shall not be issued until the long-term management plan has been reviewed and accepted by the SCWA and an endowment or



other mechanism for funding long-term management actions has been reviewed and accepted by the management entity (see Section 10.5). For phased development projects, conservation requirements may be implemented concurrently with authorization for each active phase or sub-phase as long as the conservation actions are equivalent to or greater than the requirements for that phase.

5. Plan Participants are responsible for monitoring compliance with avoidance, minimization, and mitigation measures for their projects or those for which take authority has been granted to third parties. For third party projects, Plan Participants may use monitoring and compliance reports provided by project sponsors, but the Plan Participants are ultimately responsible for ensuring compliance with applicable avoidance, minimization, and mitigation measures. For projects using approved conservation or mitigation banks, the bank operator is responsible for monitoring performance compliance for habitat enhancement, construction, and restoration as specified in their respective enabling instruments or agreements. Under these instruments or agreements, financial assurances and other measures are incorporated to ensure long-term compliance and performance.
6. Following issuance of final approvals such as grading or use permits that could result in the take of Covered Species, Plan Participants are responsible for submitting project reports and preparing and submitting project information summary sheets and maps to the SCWA for annual compliance reporting. Final, approved project information maps shall be submitted in both hard copy and electronic, vector-based (geographic information system [GIS] or Computer-Aided Design [CAD]) formats to the Plan Participant Lead Agency and SCWA to assist with annual reporting requirements. Information shall include required baseline (Section 5.2) and project information. Project information shall clearly identify direct and indirect effects, including grading limits, buffer zones/setbacks, and any roads, trails, or other utilities extending beyond the development area that could affect Covered Species or Natural Communities. The preferred format for submitting spatial data is in a GIS format such as ESRI shapefiles or geodatabases. Spatial data may be submitted as Autodesk AutoCAD DWG or DXF files; however, additional processing fees may be required for non-GIS formats (see Chapter 11). Regardless of the format, all spatial data shall be projected in the State Plane Zone 2, NAD1983 coordinate system. Areas such as project boundaries, impact areas, preservation areas, or land cover types shall be stored as simple polygon features. Land cover shall be mapped to the full extent of the project area, including required buffers with no duplicates, overlaps, or gaps between features. Land cover types shall be encoded as attributes in GIS files and layers in CAD files according to the data model template provided by the SCWA.

#### 10.4.2 Appeals Process

The Solano HCP Conservation Program has been developed using the best data available to accurately map, identify, and interpret baseline conditions. However, because of the broad coverage and scale of the HCP, errors in the interpretation of habitat conditions at a particular site may occur. Plan Participants and third party applicants may appeal such issues to SCWA and the Resource Agencies. Issues which may be appealed include, but are not limited to:

- Baseline site conditions/vegetation types present at the time the HCP is adopted or other applicable baseline time frames established in the Solano HCP Conservation Program;
- Suitability or desirability of a site for establishing preservation and restoration reserves;



- Habitat suitability for certain species;
- Modifications to survey protocols and time requirements;
- In-fill exemptions provided under certain mitigation measures;
- Interpretation of Conservation Program (avoidance and minimization measures, mitigation measures, and adaptive management and monitoring) requirements;
- Findings regarding the acceptability of management plans and associated funding requirements; and
- Projects approved prior to but not implemented prior to adoption of the Solano HCP that were not included in the projected take or impacts described in Chapter 8.0 (pre-approved projects that were assumed to be part of the built environment at the time the HCP was published) may appeal to request coverage under the HCP.

Designations for Natural Community and conservation values, in general, would not be suitable for appeal as these designations are based on broader conservation considerations and not necessarily site-specific conditions.

Issues that may not be appealed include:

- Compliance with all avoidance and minimization measures and mitigation measures (Chapter 6.0) are mandatory. Habitat mitigation ratios, setbacks/buffers, and other requirements may not be modified for individual projects;
- Participation in the Solano HCP except as noted in Section 10.4.3, below; and
- HCP fees.

Appellants should provide sufficient background information and rationale to document their case and to explain how proposed changes or modifications would be consistent with the Solano HCP Conservation Program.

### 10.4.3 Exemptions

The Solano HCP requires mandatory participation for Covered Activities undertaken by Plan Participants and/or authorized by Plan Participants for eligible third parties except in certain limited situations:

- A project proponent of a Covered Activity will not be required to comply with the conditions in this HCP or pay any HCP fees if the proponent of the activity provides written confirmation to and receives concurrence from the lead agency Plan Participant and SCWA that the activity has already received the necessary take authorizations under the California Endangered Species Act (CESA) and FESA or has otherwise complied with CESA and FESA, and has no significant effects to Covered Species. Written confirmation for CESA and FESA may be provided by:
  - A copy of an incidental take permit issued by CDFG for the activity, and copies of incidental take statements or incidental take permits issued by USFWS and/or NOAA NMFS that authorize the proposed covered activity; or



- A combination of letters from CDFG, USFWS, and NOAA NMFS that verify a lack of jurisdiction, coverage, and/or incidental take authorizations and no significant effects to Covered Species.

Project proponents may also be eligible for exemption from certain mitigation measures required for Covered Activities in limited situations:

- Plan Participants and eligible third parties who undertake voluntary actions that benefit HCP Covered Species (e.g., establishment of artificial nest burrows and planting of host plants not required as part of mitigation for a project or action) will not be required to comply with the applicable mitigation measures described in Section 6.4 that result from such actions. Project proponents, however, will be required to comply with all avoidance and minimization requirements applicable to the current conditions and mitigation measures required for baseline conditions that existed prior to implementation of the voluntary actions.

Project proponents/property owners implementing voluntary actions that benefit Covered Species are encouraged, but not required, to apply to SCWA for an agreement. The application shall include an assessment of the baseline conditions for the subject site and adjacent lands (certain actions may require adjacent landowner participation through the Good Neighbor Policy program) and a description of actions to be undertaken to benefit Covered Species. The SCWA in consultation with the HCP Technical Review Committee (see Section 10.2.6) will review and provide recommendations as appropriate for the agreement. Absent such an agreement, the SCWA and HCP Technical Review Committee will be responsible for determining baseline conditions.

- Adequate mitigation has already been provided for a project subject to receiving the necessary take authorizations under CESA and FESA.
- Projects on small (less than 5 ac) in-fill lots within existing city limits (as of the effective date of the Solano HCP) that are surrounded by urban development on at least three sides<sup>1</sup> may be exempt from certain mitigation measures. These small in-fill projects will be required to comply with the following measures at a minimum:
  - Wetland protection, compensation, and permitting requirements;
  - Mitigation and avoidance and minimization measures for burrowing owl and Swainson's hawk nests; and
  - Payment of HCP fees (see Section 11.2.1).

Such projects are not required to implement mitigation measures related to impacts to foraging habitat.

## 10.5 DEVELOPMENT OF THE RESERVE SYSTEM

The Solano HCP is primarily designed to function as a pay-as-you-go system, with conservation actions completed prior to or concurrent with the loss or conversion of habitats and associated incidental take of Covered Species. However, substantial habitat preservation, management,

<sup>1</sup> This definition is intended to be consistent with the intent of the Class 32 Categorical Exemption as defined in Section 15332 of the CEQA Guidelines.



restoration, and enhancement is planned or currently occurring in the region through the establishment of mitigation banks such that a significant portion of the HCP habitat conservation goals and objectives, particularly for vernal pool grassland communities and associated species, are expected to occur well in advance of impacts. Section 6.4 provides information regarding the ongoing conservation actions with respect to each Natural Community and Covered Species. In addition, the SCWA has committed \$1 million for land acquisition and reserve management.

### 10.5.1 Reserve Land Acquisition

Commercial and institutional mitigation and conservation banks are expected to provide most of the habitat restoration and preservation for vernal pool habitats/seasonal wetlands, Swainson's hawk, burrowing owl, and a component of riparian habitat conservation. Additional reserve lands will be acquired through fee title, purchase of conservation easements, and direct land dedications. Conservation lands established under the auspices of, or to fulfill the requirements of, the Solano HCP shall only be acquired from willing sellers and shall be located within the Plan Area. Plan Participants will not condemn land or exercise their powers of eminent domain to acquire conservation lands.

The relationship between SCWA and the individual reserves (whether a commercial or institutional migration bank or project-specific mitigation reserve) with regard to management and monitoring duties is depicted on Figure 7-3. In general, the SCWA, as lead agency for implementing the HCP, will assume responsibility for long-term biological effectiveness monitoring, targeted adaptive management studies, and programmatic review of the monitoring program. Individual reserves will be responsible for baseline resource inventory, performance monitoring and attainment of performance criteria for habitat/species restoration and establishment actions, remedial actions, and overall management of the reserves. Monitoring responsibilities are further described in Chapter 7.0.

#### 10.5.1.1 Mitigation Bank and Reserve Certification

Mitigation and conservation banks established through State and/or Federal banking procedures undergo significant review by the applicable Resource Agencies. These agreements require adoption of an approved Resource Management Plan; identification of an approved, long-term management entity; and provisions for assured funding to adequately manage the preserve in perpetuity (e.g., a management endowment). All of these conditions must be approved by the Resource Agencies acting as the Interagency Review Team under current Corps and EPA regulations (Federal Register, Vol. 73, No. 70, Thursday, April 10, 2008). The Interagency Review Team is typically composed of staff from the USFWS, CDFG, Corps, and EPA from the region(s) in which the bank and its service area are to be located.

Commercial and institutional habitat restoration and species preservation banks established within Solano County to provide compensation for Covered Activities authorized under the Solano HCP must be approved and have signed enabling agreements through applicable State and/or Federal mitigation banking procedures.

In addition to the State and Federal banking standards, mitigation banks and other established preserves and reserves must additionally be certified by the SCWA for providing HCP conservation requirements. Certification will include the following requirements consistent with



the applicable conservation strategies described in Chapter 6.0, the management activities for Special Management Species (Section 6.12 and Appendix C), and the monitoring and adaptive management requirements described in Chapter 7.0:

1. Establish conservation easements in perpetuity that are consistent with California Civil Code 815 et seq. and that meet the criteria outlined in Section 10.5.2 of the Solano HCP.
2. Adopt a Resource Management Plan prepared by a qualified person(s) experienced in the development and implementation of restoration, mitigation, and management plans for the respective communities that meet the minimum criteria outlined in Section 10.5.3. Resource Management Plans shall address interim and final management actions as well as incorporate the basic requirements and management actions specified by the SCWA.
3. Adopt a Restoration and Enhancement Plan, if applicable, prepared by a qualified person(s) that meets the minimum criteria outlined in Section 10.5.4. Funding assurances for construction and performance obligations shall also be provided. Such plans shall incorporate the basic restoration design, monitoring, and performance standards identified in the Solano HCP and specified by the SCWA.
4. Provide the SCWA, their authorized representatives, and Resource Agencies access to reserve and preserve lands to conduct compliance inspections and monitoring and adaptive management studies as described in Chapter 7.0.
5. Agree to alter reserve management activities as appropriate to incorporate new strategies that have been determined to significantly improve species and or/reserve habitat values for covered and regional management species. Future changes in management are applicable to portions of the bank where HCP-authorized credits are sold/available and shall be limited to actions that do not significantly increase management costs under an HCP-approved management and funding plan (see Section 10.5.5).
6. Establish a management endowment or other permanent funding mechanism that is acceptable to the long-term management entity, meets Solano HCP standards, and is approved by the SCWA in consultation with the Resource Agencies. This funding mechanism shall be sufficient to provide interim management of the reserve until the long-term endowment is fully funded for at least 3 years, manage the property in perpetuity consistent with the approved management plan, and include a contingency fund to address reasonably foreseeable changes required for adaptive management. In addition, the following financial requirements shall be met if mitigation lands are taken off property tax rolls (e.g., lands are acquired by a public agency or nonprofit organization):
  - a. Provide a guaranteed source of “payment in lieu of tax.” Such payments shall not be dependent on State or Federal appropriations. Payments may be made annually if property tax fees are included in the endowment account or through a lump sum payment (see discussion below).
  - b. Provide a guaranteed source for payment of assessments for funding infrastructure, including levees, on the same basis and other landowners or through a lump sum payment basis acceptable to the assessment district.
  - c. Provide a guaranteed source of funding for increased operations and maintenance and regulatory compliance costs to public agencies/local districts that are maintaining local infrastructure.



7. Offer Safe Harbor protection for adjacent lands (including public agency activities) and requirements for buffers (see Section 10.5.6 for the Good Neighbor Policy).
8. Submit annual sales records, available credits, and monitoring reports to the SCWA.
9. Demonstrate compliance with all local Plan Participant and Solano County use permits.
10. No out-of-County transfer of water rights from mitigation lands will be allowed.

In addition to the above requirements, the certification for all reserve lands shall include assessments of:

- The potential for mercury release or transport;
- Loss of existing wildlife values through conversion to other uses or habitat types;
- Flooding, including any increased costs for operation and maintenance for responsible agencies;
- Potential for increased costs and time required for regulatory compliance for public agencies/special districts that are maintaining the infrastructure;
- Changes in water salinity; and
- Effects to water quality (urban and agricultural).

Where adverse effects are identified, mitigation bank and reserve establishment proponents shall fully mitigate significant impacts. The primary concerns for the above effects are in relation to large-scale conversions of land from one use such as agricultural land to wetlands. In general, establishment of habitat restoration actions such as vernal pool restoration or the required 5 percent land set-asides for agricultural reserves are not likely to result in significant changes to habitat values. As such, these sorts of minor actions are not expected to result in significant effects; however, each proposed reserve will be evaluated individually.

The SCWA will certify (by agreement with the bank owners, commercial and institutional mitigation banks, and other established reserves/preserves) compliance with the Solano HCP upon receipt of satisfactory documentation of the above criteria. Bank documentation will be reviewed in consultation with the Resource Agencies as described under Section 10.2.6. In some cases, this local certification may require existing Resource Management Plans and endowment funds to be amended.

Because a number of commercial mitigation and conservation banks have and will be approved and established prior to adoption of the Solano HCP, it is likely that some resource credits will have been sold for non-HCP covered projects prior to reserve certification. Bank credits are typically assigned on an aggregate basis for each resource present on the bank (e.g., vernal pool fairy shrimp habitat, constructed vernal pool) and are not typically tied to a specific piece of land. For most of the existing mitigation banks, the entire bank would be monitored and managed following Solano HCP standards even though previously sold resource credits would not be counted toward achieving Solano HCP conservation objectives. Where a substantial portion of the resource credits have been previously allocated and the bank operator does not want to certify the entire bank, the SCWA will work with the bank operator and Resource Agencies to determine if a portion of the bank can be reasonably segregated from the previously sold credits such that a discrete area can be managed and monitored under the HCP criteria. The SCWA may determine, at its discretion, that a



previously approved bank should not be certified if the resulting reserve area is too small to effectively monitor and manage or does not support the resources to be conserved.

Project impact fees shall provide funding for biological effectiveness monitoring, adaptive management targeted studies, and programmatic review of the monitoring program to be conducted by the SCWA on all reserves, including existing mitigation banks certified under the Solano HCP (see Chapter 11.0). If the SCWA obtains the long-term monitoring endowment funds for existing banks from the endowment manager, these funds would be used to offset costs and reduce HCP impact fees.

#### 10.5.1.2 Private, Project-Specific Mitigation Lands

Land set-asides and other private or institutional mitigation sites and reserves not authorized through the Federal mitigation bank process shall comply with the Conservation Strategy for the applicable community/species association (see Chapter 5.0) and the additional requirements for Natural Communities and Covered Species identified in Section 10.5.3.2. Individual project mitigation sites shall comply with the same standards and requirements described in Section 10.5.1.1 for commercial and institutional mitigation banks before the site will be considered in compliance with HCP take authorization.

The SCWA, in consultation with Resource Agencies, shall approve in writing all mitigation sites, including on-site avoidance reserves, prior to issuance of any take authority. For such lands to be acceptable, the following conditions must also be met:

1. The site shall support the Natural Community/biological resources that meet the applicant's conservation requirements and contribute to HCP goals and objectives.
2. The property shall have no land encumbrances (e.g., easements, hazardous materials, mineral rights) that would significantly conflict with HCP goals and objectives and/or inhibit management of the property in the prescribed manner or implementation of adaptive management practices. Acreage and resources within easements may not be counted toward mitigation or conservation requirements.
3. The land shall be located in designated conservation areas for the applicable Natural Community or Covered Species. Conservation easements or other appropriate protection mechanism shall not be conveyed within 1 mi of a proposed urban expansion area boundary unless prior approval is obtained from the SCWA in consultation with the Resource Agencies.
4. Nest trees and other habitat enhancement requirements must be established/planted within 1 year of acceptance into the Solano HCP reserve system.
5. The applicant shall provide adequate funding to manage and monitor the site in perpetuity.
6. The site shall obtain and be in compliance with all local Plan Participant and Solano County use permits.
7. The site shall be approved by the SCWA in consultation with the Technical Advisory Committee (see Section 10.2.6).



### 10.5.1.3 Minimum Reserve Design Criteria

All mitigation sites shall encompass as many of the reserve design principles as possible (see Section 4.2) and contribute to the overall reserve design and conservation approach for the respective Natural Communities and species intended to be preserved. The SCWA may deem small, isolated, on-site avoidance areas or banks unsuitable if such areas do not contribute to the conservation goals and objectives for the respective Natural Communities and species. The basic criteria for on-site mitigation areas include:

1. The avoided lands contribute to the habitat quality and value of adjacent, protected, natural open space lands in accordance with reserve design principles 6, 7, and 8 (Section 4.2).
2. The lands are contiguous to riparian or stream habitat corridors, green belts, and designated open space lands in accordance with reserve design principles 5 and 6 (Section 4.2).
3. The lands are contiguous to High Value Conservation Areas in accordance with reserve design principles 6, 7, and 8 (Section 4.2).
4. The lands are in High Value Conservation Areas and are of sufficient size for conservation activities in accordance with reserve design principles 2 and 3 (Section 4.2).
5. For Swainson's hawk, no reserves shall be established within 1 mi of existing or planned development to avoid future abandonment of nest territories due to increased human disturbance.
6. No reserves shall be established within 2 mi of existing or planned wind turbines to avoid potential mortality to hawks and other covered bird species and Special Management Species.

Generally, isolated reserves (e.g., currently or likely to be surrounded by incompatible land uses in the future) less than 80 to 100 ac in size shall be avoided. This general guidance does not apply to linear features such as riparian corridors and streams.

**Approval Process.** Applicants for new mitigation banks and project-specific mitigation sites shall submit a package to the SCWA that identifies the location of the reserve and provides sufficient background information to demonstrate that the site can achieve desired conservation goals and reserve design criteria<sup>1</sup>. All proposed reserves should be located within identified High Value Conservation Areas for the applicable species/community (see Figures 4-8, 4-10, 4-13, 4-14, 4-16, 4-18, 4-20, 4-21, 4-22, 4-26, and 4-27 in Chapter 4.0). The SCWA may consider and approve, in consultation with the Resource Agencies, areas outside of designated High Value Conservation Areas provided the site supports the applicable resources/species and is subsequently deemed as having high conservation value.

Once a potential reserve has been preliminarily approved, the following additional information shall be submitted to the SCWA for final approval and acceptance of the site:

1. Conduct baseline surveys (following standardized minimum requirements) of the mitigation areas to document the occurrence, distribution, and relative abundance of applicable species

<sup>1</sup> This information package is equivalent to the Prospectus as defined in Section 332.8(d)(2) of the Corps and EPA Mitigation Guidelines, Federal Register, Vol. 73, No. 70, Thursday, April 10, 2008.



- and characterize the site's biological resources (e.g., community types such as grassland, oak woodland, oak savanna, canopy cover for oak woodland habitats, and the presence of important habitat features such as wetlands and riparian habitats/stream courses, playa pools, serpentine soils, and shallow volcanic rock-derived soils or outcrops).
2. Establish conservation easements in perpetuity that are consistent with California Civil Code 815 et seq. and meet the criteria outlined in Section 10.5.1.
  3. Adopt a Resource Management Plan prepared by a qualified person(s) experienced in the development and implementation of restoration, mitigation, and management plans for the respective communities and meet the requirements outlined in Section 10.5.3.
  4. Provide funding for the interim and long-term management of established reserves (see Section 10.5.5).
  5. Adopt a Restoration and Enhancement Plan prepared by a qualified person(s) that meets the minimum criteria outlined in Section 10.5.4. Funding assurances for construction and performance obligations shall also be provided.
  6. Provide the SCWA, their authorized representatives, and the Resource Agencies access to reserve and preserve lands to conduct compliance inspections and the monitoring and adaptive management studies described in Chapter 7.0.
  7. Establish a monitoring and reporting program that includes submittal of annual reports to the SCWA.

**Funding Assurances.** Interim and long-term funding for all reserves (mitigation banks and project-specific mitigation sites) shall be identified and calculated through a Property Analysis Record (Center for Natural Lands Management) or other accounting method acceptable to the SCWA. The SCWA will establish basic standards for labor rates and maintenance activities. Management endowments will be held by the SCWA or another approved third party. Other funding mechanisms may be considered and approved by the SCWA if the funding is sufficient to cover management of the site in perpetuity. Insurance, property taxes, and legal defense shall be included in the funding mechanism.

For commercial and institutional mitigation banks, endowment principal payments shall be tied to the credit release schedule as follows:

- At least 15 percent of the endowment principal shall be funded prior to the earliest of the second release of established, enhanced, or preserved habitats or species credits.
- At least 40 percent of the endowment principal shall be funded prior to the earliest of the third release of established, enhanced, or preserved habitats or species credits.
- At least 70 percent of the endowment principal shall be funded prior to the earliest of the fourth release of established, enhanced, or preserved habitats or species credits.
- A total of 100 percent of the endowment principal shall be funded prior to the earliest of the fifth release of established, enhanced, or preserved habitats or species credits.

Additionally, until the endowment is fully funded, the amount of the endowment principal shall be adjusted annually per the criteria described in Section 11.2.2.



For project-specific mitigation lands, full payment of the endowment principal or other funding mechanism will generally be required at the time the project's take permit is issued. For long-term, phased projects, the SCWA may consider alternative payment schedules if appropriate security is provided for future payments.

Where restoration activities are planned or required to fulfill mitigation requirements, sponsors (banks and private/project-specific mitigation projects) shall provide funding assurances for construction and performance. Funding assurances shall be in the form of bonds, letters of credit, or another form acceptable to the SCWA. Construction funding assurances shall be released to the project sponsor within 45 days of submitting documentation verifying as-built conditions and year one performance standards for hydrology (for wetland construction) or plant establishment/survival. Performance assurances will be retained until established communities achieve final year criteria (generally 3 to 5 years) or until final performance criteria have been achieved for a minimum of 2 years without significant intervention (e.g., replanting, irrigation, regrading). Like the long-term management funding, construction and performance assurances are also subject to annual adjustments per the criteria described in Section 11.2.2.

The project applicant (bank sponsor or project-specific applicant) will be responsible for all costs associated with interim management and performance monitoring until the reserve endowment or other funding mechanism has been fully funded for 3 years.

The project-specific mitigation sponsor shall be in default if that party fails to observe or perform any obligations or responsibilities required under its Section 10 permit as identified in this HCP. In the event the bank sponsor and/or property owner realizes it is in default, it shall promptly notify the SCWA and Resource Agencies. Once the SCWA and Resource Agencies receive notification or otherwise become aware that the bank sponsor and/or property owner is in default, the SCWA and Resource Agencies may elect to either pursue informal dispute resolution or require the holder to draw upon and expend the financial security necessary to continue bank development, management, or operation, as provided in its operating agreement. If the informal dispute resolution process is invoked, the SCWA and Resource Agencies shall not draw upon financial securities until the informal dispute resolution process has been terminated.

**Reporting.** All annual reports will be provided to the SCWA, and other agencies as may be required under their operational agreements, for review and approval. The SCWA will additionally incorporate summaries of annual reports from established reserves as part of the Solano HCP annual monitoring reporting requirements.

### 10.5.2 Conservation Easements

Conservation easements will be required on all lands established as reserves under the Solano HCP. All conservation easements intended to fulfill Solano HCP avoidance, minimization, and mitigation measures shall be acquired in perpetuity consistent with California Civil Code 815 et seq. All conservation easements will be held by the SCWA or another third party approved by the SCWA with an established conservation interest in the resources on the property (e.g., Solano Land Trust, CDFG). The CDFG, USFWS, and SCWA (where the SCWA is not the recipient of the conservation easement) shall also be named as third-party beneficiaries.



The SCWA will maintain standard templates that have been approved by the Resource Agencies; however, the terms and conditions of each conservation easement will be developed on a site-specific basis, depending on site conditions and conservation values. In general, the following restrictions/prohibitions will be included in the conservation easement:

1. Unseasonal watering; use of fertilizers, pesticides, biocides, herbicides, or other agricultural chemicals; weed abatement activities; incompatible fire protection activities; and any and all other activities and uses that may adversely affect the purposes of the Conservation Easement, except as specifically permitted in the Resource Management Plan.
2. Use of off-road vehicles and use of any other motorized vehicles except on existing roadways. Operation, maintenance, and monitoring activities and other uses as may be specifically permitted in the Resource Management Plan are exempt from this restriction.
3. Recreational activities including, but not limited to, horseback riding, hiking, biking, hunting or fishing, except as may be specifically permitted in the Resource Management Plan.
4. Commercial or industrial uses.
5. Any legal or de facto division, subdivision, or partitioning of the Easement Area.
6. Construction, reconstruction, or placement of any building, billboard or sign, antennas, towers, facilities for generation of electrical power, or any other structure or improvement of any kind, except as may be specifically permitted in the Resource Management Plan.
7. Deposit or accumulation of soil, trash, ashes, refuse, waste, bio-solids, or any other materials.
8. Planting, introduction, or dispersal of nonnative or exotic plant or animal species.
9. Filling, dumping, excavating, draining, dredging, mining, drilling, removing, or exploring for or extraction of minerals, loam, soil, sands, gravel, rocks or other material on or below the surface of the easement area except as specifically permitted in the Resource Management Plan.
10. Altering the surface or general topography of the easement area, including building of roads, except as specifically permitted in the Restoration Plan or Resource Management Plan.
11. Removing, destroying, or cutting trees, shrubs or other vegetation: (1) except as required by law for fire breaks, maintenance of existing foot trails or roads, or prevention or treatment of disease; or (2) except as otherwise specifically permitted in the Resource Management Plan.
12. Manipulating, impounding, or altering any natural watercourse, body of water, or water circulation on the easement area (except as specifically permitted in the Resource Management Plan), and activities or uses detrimental to water quality including but not limited to degradation or pollution of any surface or subsurface waters.
13. Engaging in any use or activity that may violate or fail to comply with applicable Federal, State, or local laws, regulations, or policies.
14. Sufficient water resources (contracted surface or groundwater irrigation and on-site groundwater or surface water sources) shall be retained to maintain agricultural uses of the property consistent with crop rotation and other conventional agricultural practices in this region for a period of not less than 7 out of 10 years.



For conservation easements on irrigated, cultivated lands to preserve Swainson's hawk foraging habitat, the following additional restrictions/prohibitions will be required:

1. Planting orchards and/or vineyards for the production of fruits, nuts, or berries except in designated farmstead areas
2. Cultivation of perennial vegetable crops such as artichokes and asparagus as well as annual crops such as cotton and rice
3. Commercial feedlots, which are defined as any open or enclosed area where domestic livestock owned by other than the Grantor are grouped together for intensive feeding purposes
4. Horticultural specialties, including sod, nursery stock, ornamental shrubs, ornamental trees, Christmas trees, and flowers
5. Commercial greenhouses or plant nurseries
6. Commercial aquaculture of aquatic plants and animals and their byproducts

The establishment/acceptance of conservation easements will also be contingent upon receipt and approval of the following:

1. A baseline survey of the property documenting the current conditions and conservation values of the property for applicable Covered Species, including a map showing the location of the subject parcels in relation to other reserve/protected lands and to Solano HCP priority areas for conservation activities.
2. A preliminary title report and legal description of the property.
3. An assessment of the effects of other existing easements, covenants, restrictions, and any reserved rights on the ability to achieve desired conservation objectives. The land within any such encumbrances shall be excluded from mitigation or conservation credit.
4. A hazardous materials assessment (minimum Phase 1 Environmental Assessment, more detailed assessments may be required if recommended by the Phase 1 assessment).

Plan Participants may reject conservation easements where lands may not be consistent with intended conservation objectives and/or where hazardous materials or other easements, covenants, restrictions, and any reserved rights would significantly restrict the ability to achieve desired conservation objectives.

### 10.5.3 Resource Management Plans

All reserves and preserves established under the Solano HCP shall have a Resource Management Plan, which is reviewed and approved by the SCWA in consultation with Resource Agencies, that includes the following minimum requirements described in Section 10.5.3.1 and consistent with the applicable species/community conservation strategies required in Chapters 5.0 and 6.0 and further described in Section 10.5.3.2 below.



### 10.5.3.1 General Requirements

The following measures or standards are applicable to essentially all reserves:

1. List and prioritize all potential threats to the Natural Communities present within the preserve/reserve.
2. Prepared by a qualified person(s) experienced in the development and implementation of restoration, mitigation, and management plans for the respective communities.
3. Control measures and programs for highly invasive exotic and noxious weeds. These programs shall be conducted in perpetuity and include annual surveys to visually assess and identify weed infestations and annual control measures.
4. Control measures for invasive and destructive nonnative animal species (e.g., wild pigs, bullfrog). These programs shall be conducted in perpetuity and shall include annual surveys to visually assess and identify new infestations. All control measures shall be conducted in compliance with all applicable local, State, and Federal regulations in force at the time of the control program.
5. Control measures for mosquitoes and other vectors of concern for human health and agricultural pests and pathogens.
6. Rodent control on reserves/preserves shall be limited to the maximum extent practicable. Habitat and species reserves and preserves<sup>1</sup> shall set aside zones where no rodent control will occur. Control activities shall be limited to reserve/preserve edges where ground squirrels and other rodents conflict with adjacent land uses. The control zone width shall be no more than 250 ft<sup>2</sup> unless approved by the Resource Agencies. If this distance is reduced, Resource Management Plans shall include additional control efforts to confine rodent activity to the reserve as part of a Good Neighbor Policy.
7. Procedures and Best Management Practices (BMPs) for chemical applications shall be established in order to avoid and minimize effects to Covered Species.
8. Installation and maintenance of artificial burrowing owl burrows/nest boxes shall be identified in the Resource Management Plan and funded as a line item of the long-term management funding.
9. For banks, monitoring programs shall be included to monitor the effectiveness of any habitat or species value (e.g., credit type) that is established and sold to meet the requirements of the Solano HCP Conservation Program.
10. Monitoring programs shall be included to document the status and continued persistence of Covered Species. Covered Species monitoring shall be conducted in accordance with the Natural Community and Covered Species monitoring requirements specified in Chapter 7.0. Additional monitoring could be required if unforeseen problems arise that require more frequent monitoring.

<sup>1</sup> Irrigated Agriculture lands preserved for Swainson's hawk and burrowing owl habitat are exempt from rodent control restrictions.

<sup>2</sup> The 250 ft control zone is based on a typical California ground squirrel home range from a burrow system (150 ft radius).



11. Management and restoration plans shall incorporate measures to protect extant populations of other Covered Species on the reserves/preserves. Reserve and preserve managers are also encouraged to establish other Covered Species native to on-site habitats as part of any restoration and enhancement actions. Successful establishment of populations will be allocated additional credit or value for the applicable species and additional occupied habitat.
12. A management endowment or other funding mechanism shall be established that is acceptable to the long-term management entity and SCWA and is of sufficient size to manage the property in perpetuity consistent with the approved Resource Management Plan. Guarantees for funding for the interim management period (reserve establishment until the 3-year anniversary of full funding of the long-term management endowment) will also be required.
13. The Resource Management Plan shall specify maintenance requirements and responsibilities for implementation, interim and long-term ownership and/or management, annual reporting requirements, and a funding mechanism consistent with the HCP reserve design and management standards.
14. Resource Management Plans shall include provisions for implementing adaptive management on established reserves (see Section 10.5.5).
15. Reserves shall provide annual monitoring reports summarizing management activities over the preceding year.

#### 10.5.3.2 Additional Management Requirements for Natural Communities and Covered Species

The following additional specific management requirements are required for Resource Management Plans to fulfill Natural Community and Covered Species management goals and objectives for reserves in the Valley Floor Grassland and Vernal Pool Natural Community (see Sections 5.3, 5.10, and 5.11), Callippe Silverspot Butterfly Conservation Area (Section 5.5), and in Irrigated Agriculture lands (see Sections 5.9, 5.10, and 5.11).

**Valley Floor Grassland and Vernal Pool Reserves.** The primary management objective for reserves within the Valley Floor Grassland and Vernal Pool Natural Community is to control or remove thatch and annual grass heights. Secondary objectives are to incorporate management actions that promote native grasses and result in a patchwork of lightly to moderately grazed pastures, with occasional patches of ungrazed or taller vegetation. Livestock grazing is the preferred method of control. Grazing requirements shall specify stocking rates, desired grass maximum heights by season, end of grazing season residual dry matter requirements, and applicable grazing seasons.

In smaller urban reserves, fencing requirements shall be sufficient to exclude dogs to minimize harassment/harm to livestock. Where livestock grazing is not practicable, provisions and funding for regular vegetation mowing shall be required. In general, mowing shall be conducted two to three times per year: (1) at the end of the rainy season to reduce thatch and wild fire fuels; and (2) once or twice during the growing season to maintain grass heights between 2 and 6 inches in order to promote forb emergence and conditions preferred by burrowing owl (see Valley Floor Grassland and Vernal Pool Natural Community, callippe silverspot butterfly, and burrowing owl conceptual models in Appendix B).



**Callippe Silverspot Butterfly Conservation Area.** Resource Management Plans for reserves containing callippe silverspot butterfly breeding habitat shall include vegetation management strategies that promote establishment of native grasses and low residual cover of introduced annual grasses (700 to 1,000 pounds or less of residual dry matter) in core breeding areas.

**Agricultural Lands.** Resource Management Plans for reserves established in Irrigated Agriculture lands for Swainson's hawk and burrowing owl conservation shall identify set-asides and locations of the other required species habitat components. The set-aside lands are for current and future Swainson's hawk nest trees, artificial burrows and short grass cover areas for burrowing owl, and dense vegetation stands for tricolored blackbird, and Special Management Species (see species objectives in Sections 5.9, 5.10, and 5.11). The Resource Management Plan shall also specify procedures and time lines for establishing, maintaining, and replacing potential nest trees in perpetuity.

Resource Management Plans for Irrigated Agriculture reserves shall also incorporate annual reporting requirements for planned crops for the upcoming season (e.g., pre-planting reports) as well as information on compliance with set-aside area management requirements. In situations where a specific reserve wishes to deviate from the minimum 50 percent alfalfa (or similar crop type) requirement (Objective SH 1.2), the reserve must receive prior approval for this change from the SCWA to ensure that the minimum 50 percent alfalfa (or a crop type with similar irrigation and harvesting regimes) requirement will be met in the coming year throughout the reserve system.

The SCWA will track the contribution of each specific reserve toward the 50 percent alfalfa/irrigated hay and 5 percent naturalized herbaceous and woody/shrub cover system-wide reserve requirements. The contribution of each reserve to the overall requirements will be specified in the reserve's approved Resource Management Plan and annual planting plans. If an individual Resource Management Plan calls for less than 5 percent naturalized herbaceous and woody/shrub cover or less than 50 percent alfalfa/irrigated hay contributions to the overall system-wide goals, the difference must be made up at another reserve. The SCWA, in consultation with the Resource Agencies, must approve all deviations from the minimum reserve requirements (50 percent alfalfa/irrigated hay and 5 percent naturalized herbaceous and woody/shrub cover) prior to planting to ensure the minimum system-wide requirements are met each year. In general, the percentage of alfalfa crop in any given subzone (see Figure 4-27) shall not deviate more than 20 percent from the base requirement.

For long-term flexibility, the SCWA will establish a program for trading crop-type credits between individual reserves if the minimum 50 percent criterion for alfalfa (or other irrigated hay crops with similar management requirements) is achieved throughout the Irrigated Agriculture reserve system in any given year (see Section 10.5.3 for further information).

#### 10.5.4 Restoration and Enhancement

The creation of wetlands and restoration of Natural Communities and species populations are important components of the Solano HCP Conservation Strategy. The Solano HCP generally follows the definitions for creation, enhancement, restoration, and establishment as defined by the Society for Ecological Restoration:



- **Creation** is defined as the construction or establishment of a habitat or plant community within a different habitat or plant community that previously did not support that community. Created communities are also referred to as artificial habitats.
- **Enhancement** is the increase in biological values of an existing habitat area or feature through changes in management, vegetation, or specific structural features to increase one or more functions based on management objectives. Typically, enhancement involves improving functions in a degraded community or habitat (e.g., after enhancement, an area that technically functions as a wetland but does not possess any particular values for native species now supports native species and/or other desirable wetland functions).
- **Establishment** entails the manipulation of the physical, chemical, or biological characteristics of the site to develop a resource that does not currently exist. Establishment increases resource area and functions. Establishment associated with restoration is preferable to creation.
- **Restoration** is the return of an ecosystem to its condition prior to disturbance. In principle, restoration is similar to enhancement and involves converting a severely degraded or altered community through implementation of management actions, land grading, and revegetation activities to promote re-establishment of the habitat conditions, functions, and values associated with the site prior to disturbance. Restoration is distinguished from enhancement in that restoration is conducted where all evidence of the targeted natural community has been eliminated by prior disturbance (e.g., vernal pools and swales have been converted to uplands).

A number of the Solano HCP mitigation measures refer to “construction” as part of the required actions. As referred to in the Solano HCP, construction involves activities such as excavation, grading, and revegetation necessary to create, restore, establish, and enhance Natural Communities/habitats. To achieve HCP goals and objectives, only restoration, establishment, and enhancement activities will be accepted for Natural Communities/habitats. The creation of habitats (e.g., construction of wetlands in historically upland soil types where wetlands would not naturally occur) will not be accepted as meeting HCP goals and objectives. This exemption, however, does not extend to placement of artificial features such as nest boxes, nesting platforms, or artificial burrows that may be desirable or required to establish specific habitat elements that may be lacking at a reserve.

#### 10.5.4.1 Restoration and Enhancement Plans

Restoration and Enhancement Plans shall be submitted to the SCWA for review and approval, in consultation with Resource Agencies (Section 10.2.6), that include applicable construction and performance assurances (10.5.1.3), Management Plans and Endowments (see Sections 10.5.3 and 10.5.4), and Conservation Easements/Land Dedications (see Section 10.5.2). Restoration and Enhancement Plans shall be required for unconstructed or phased restoration at existing banks, mitigation banks that have not been previously approved under the Federal and/or State approval process, or institutional or private mitigation actions (see Sections 10.5.2 and 10.5.3) involving habitat restoration and/or enhancement to fulfill the requirements of the Solano HCP. This condition does not apply to restoration and enhancement actions previously implemented on mitigation banks approved and/or operating prior to adoption of the HCP. However, previously approved restoration projects that have not been implemented may be required to update their plans and monitoring and performance requirements to meet current standards.



All Restoration and Enhancement Plans shall follow the general format and meet the content requirements of the United States Army Corps of Engineers, San Francisco and Sacramento Districts, Mitigation and Monitoring Proposal Guidelines (December 30, 2004; available at <http://www.spn.usace.army.mil/regulatory/policy/mitigationfinal.pdf>) or applicable updates. In general, acceptable Restoration and Enhancement Plans shall follow these guidelines:

1. Restoration/enhancement shall occur in similar soil types or in soil types typically associated with the applicable Natural Community (e.g., vernal pool habitats should not be constructed in upland soil types unless it can be demonstrated that wetlands would naturally occur in such conditions).
2. The size, shape, and depth of the target community/vegetation (e.g., wetlands/vernal pools) shall be of similar size, shape, and relative density as Natural Communities on similar soil types.
3. Restoration of uplands through the construction and placement of mounds may also be necessary in many reserves, particularly in the Valley Floor Grassland and Vernal Pool Natural Community. In many areas, past agricultural cultivation has tended to reduce the topographic distinction between wetland and uplands. The pools and swales have become shallower and the surface of the uplands is closer to the winter groundwater table. The loss or reduction of distinct uplands has greatly reduced habitat for fossorial rodents (e.g., California ground squirrel, pocket gopher, kangaroo rat, meadow vole) and many of the other native species (e.g., California tiger salamander and burrowing owl) that depend on other species for burrows.
4. Plans shall describe site grading, erosion control, channel stabilization, preservation methods, fishery enhancement, and revegetation. Any revegetation program shall use plants indigenous to this region.
5. Construction activities for restoration and enhancement shall be avoided in areas of high habitat quality and relatively natural topography. Construction activities shall be limited to areas where the Natural Community structure has been eliminated or severely disturbed/altered by past land uses.
6. Revegetation activities shall be limited to native or widespread, non-invasive naturalized plant species common to the region.
7. Specific, measurable criteria shall be established to assess the success of restoration/enhancement activities in meeting desired goals and objectives. Any salvage (e.g., collection and relocation of Covered Species from impacted sites to reserves) or restoration requirements shall include clearly defined goals focusing on vegetation establishment (stability, succession, reproduction) and shall follow requirements identified in Section 10.5.4.2.
8. Reserves shall not establish or restore habitats within or adjacent to easements or other properties where the requirements for avoiding and/or minimizing take of Covered Species would interfere with their normal operations and management.
9. Monitoring to assess performance shall occur for a minimum of 5 years (certain habitats or species may require longer monitoring periods) or until final performance criteria have been met for at least 2 years without significant human intervention (e.g., irrigation, replanting, regrading). The monitoring program shall include provision for remedial action as needed to correct deficiencies.
10. Annual reports and a final report, prepared by the property owner and subject to approval by the SCWA, shall document the success of all restoration and enhancement efforts. If such



efforts are not achieving prescribed performance, an additional period of correction and monitoring shall be specified. Monitoring reports shall be submitted annually to the SCWA for review and approval and for annual reporting to the Resource Agencies.

#### 10.5.4.2 Species Relocation and Establishment Plans

Several objectives from Chapter 5.0 and mitigation measures in Section 6.4 require the establishment of new populations of Covered Species or relocation of Covered Species from impacted areas. Because natural burrows excavated by California ground squirrels are essential to the maintenance, expansion, and long-term viability of burrowing owl populations within the Plan Area, the re-establishment/relocation of ground squirrels may be required to achieve burrow objectives for burrowing owl and to increase burrow availability for California tiger salamander in certain reserves.

Relocation or establishment plans for Covered Species or ground squirrels shall be prepared and submitted to the SCWA and Resource Agencies for review and approval prior to implementation. Translocations, relocation, and establishment plans shall include:

- Identification and qualifications of the biologist(s) implementing the plan;
- Analysis of issues or concerns for mixing genetically distinct populations;
- Methods for capturing, moving, expanding distribution of, or collection of applicable animals or seeds/cysts. The plan will specify the location(s) where the species will be collected, number of animals/material to be collected, time frames for collection and release/planting, locations of release or planting, procedures for release or planting, and monitoring requirements and performance standards.
- Written approval from landowners regarding where collections will occur as well as the release sites. Good Neighbor Policy requirements may apply (see Section 10.5.6).

#### 10.5.5 Framework for Adaptive Management on Reserves

All existing mitigation banks in Solano County are required to include funding in their endowments and interim management period funding for adaptive management studies and procedures for modifying management activities in response to new information (e.g., adaptive management). Potential modifications that are anticipated for established reserves include but are not limited to:

- Changes in stocking rates or livestock,
- Modification of grazing seasons,
- Elimination of grazing, and
- Modification of weed abatement control methods and timing.

Adaptive management study funding at existing banks is generally insufficient to rigorously test management hypotheses across the full spectrum of resources at a Natural Community or landscape level. Therefore, the Solano HCP (see Chapter 7.0) provides a basic framework and approach for the Adaptive Management Program. The SCWA will oversee and implement the overall adaptive management hypothesis and testing program (see Chapter 7.0) with funding provided through user



fees (see Chapter 11.0). The SCWA will also provide guidance to participating mitigation banks and private reserves/mitigation sites regarding necessary revisions to the management plans. Third parties (e.g., CDFG and other third-party nonprofit entities) currently hold the endowment funding for existing banks and reserves. In the future, the SCWA may seek to acquire and administer these endowment funds in order to pool the funds with those of other reserves and mitigation sites administered under the HCP, allowing for more efficient implementation of adaptive management on established reserves.

The SCWA will direct and fund other changes in management activities required to address broader, regional contingency issues such as disease and predation. Such changes will be funded through user fees (see Chapter 11.0 for further discussion of applicable HCP programs and funding commitments).

### 10.5.6 Good Neighbor Policy

The Solano HCP requires the protection, acquisition, restoration, and management of lands in a coordinated preserve system to conserve Covered Species and Natural Communities. Such conservation actions may result in the expansion (colonization or increased numbers) of some Covered Species populations on private lands adjacent to preserves, potentially restricting the activities of adjacent landowners.

In recognition of this potential effect, the Solano HCP adopts a “Good Neighbor Policy.” The Good Neighbor Policy provides for take of any incremental increases in the population of Covered Species beyond the baseline conditions of adjacent lands. The policy does not provide for take of existing populations or occupied habitat prior to establishing preserve conservation activities and, therefore, would not result in impacts relative to baseline conditions.

The Solano HCP Good Neighbor Policy provides Incidental Take Permit coverage for willing participants on an “opt-in” basis for all agricultural lands within 0.5 mi of any land or property acquired as habitat mitigation for the HCP, including institutional and commercial mitigation banks established and certified by the SCWA for conservation purposes. This opt-in approach allows for landowners to willingly participate in the Plan. Those landowners that do not seek to participate would not be required to do so.

The Good Neighbor Policy is described as follows:

- Agricultural lands within 0.5 mi of preserve boundaries will be covered for incidental take of State or Federally listed Covered Species under the HCP Section 10(a)(1)(B) permit and 2081 Incidental Take Permit if such lands experience increased use or become inhabited by Covered Species as a result of implementing the Solano HCP.
- Incidental take coverage will be offered to neighboring lands in active agricultural production at the time the preserve is established. For purposes of this HCP, agricultural activities include crop production, animal production, forage production, and grazing activities in which usual and customary agricultural practices are occurring at the time the neighboring HCP preserve is established. For example, if agricultural lands used for crop production lie fallow in accordance with normal crop rotation practices at the time the neighboring preserve is established, those lands would be considered to be actively used for agricultural purposes. Such coverage shall continue, subject to the terms and conditions of the HCP, the Implementing Agreement, and



the incidental take permits, for as long as the neighboring lands are actively used for agricultural purposes consistent with baseline use (see below) and the Solano HCP incidental take permits remain in effect. Take coverage does not include conversion of agriculture to other uses.

- Neighboring landowner coverage under the incidental take permits will only be extended to individuals or populations of Covered Species that colonize or expand onto neighboring lands after the adjacent HCP preserve is established. Take coverage will not be provided for individuals or populations of Covered Species that inhabit neighboring lands prior to establishing the preserve, as identified in a baseline survey (see below).
- Upon receipt of an application for establishment (or certification) of a reserve, the SCWA will send a letter to each neighboring landowner whose lands are located within 0.5 mi of the preserve boundary and are actively used for agricultural purposes. The letter will explain the Solano HCP and the landowner's eligibility for coverage under the Good Neighbor Policy. Landowners who are interested in receiving this incidental take coverage shall respond to the SCWA and request coverage. Prior to receiving coverage under the HCP, the SCWA will need to determine the environmental baseline of the adjacent property. Landowners will have the option of either allowing biologists contracted by SCWA to survey their property at no cost or hiring and paying for their own consultants to do so.
- The survey report will address the zone of neighboring landowner protections and will include, at minimum, a description of habitat for Covered Species (extent and quality), records of Covered Species within 2 mi of the subject property, and observations of Covered Species within that area. Upon receipt of a biological report approved by the SCWA and Resource Agencies, the Certificate of Inclusion signed by the landowner, and certification/approval of the reserve, the SCWA will grant take coverage to the landowner under the Good Neighbor Program.

The SCWA will maintain a record of all correspondence and Certificates of Inclusion sent to neighboring landowners under this policy, as well as signed Certificates of Inclusion returned by landowners. On an annual schedule, the SCWA will notify the CDFG, USFWS, and NOAA NMFS of the number, location, and size of neighboring lands entered into the Good Neighbor Program. Copies of the Certificates of Inclusion will be provided to the Resource Agencies upon request.

## 10.6 COMPLIANCE MONITORING AND REPORTING

The Implementing Agreements for the Solano HCP require that local agencies prepare annual reports to track habitat losses and gains associated with public and private development projects and the assembly of the habitat preserve system. Annual reports are used to demonstrate that habitat loss is occurring in proportion to development, to ensure that the reserve system is being assembled in accordance with the Implementing Agreements, and to make certain that conservation goals and objectives are being achieved.

By March 1 of each year following the Effective Date of the Solano HCP, the SCWA shall prepare and submit an Annual Monitoring Report to the CDFG, USFWS, NOAA NMFS, and the Permittees that summarizes: the previous calendar year's monitoring and research results (biological monitoring year is October 1–September 30), and an accounting, both cumulatively and by project, of habitat acreage lost and conserved within the Plan Area by habitat type or vegetation community.



The Plan Participants have developed an initial GIS-linked database that incorporates species observation records, including the CNDDDB and other miscellaneous sources, and tracking of ongoing and approved projects. As part of several large regional conservation plans in southern California, the CDFG and USFWS have worked cooperatively with local jurisdictions, special districts, and SANDAG (San Diego Association of Governments) to develop a GIS-based data management system to meet habitat tracking reporting requirements. This system, referred to as HabiTrak, provides a standardized habitat tracking and reporting system. This program uses standardized input data to produce standardized outputs in the form of reports, maps, and updated digital databases.

The CDFG has recently updated and revised HabiTrak and has indicated their desire to have all regional plans such as the Solano HCP use HabiTrak for compliance reporting. The Plan Participants anticipate integrating the existing database into the HabiTrak program to provide annual reporting data. Data to be provided in the annual reports includes:

1. The name and location of Covered Activities authorized under the HCP during the previous reporting period;
2. A cumulative assessment of projects/impacts authorized during the life of the HCP;
3. Area/extent of vegetation communities and type and number of Covered Species affected by each Covered Activity;
4. Required conservation activities (e.g., on-site measures implemented, location of off-site measures, payment of mitigation fees);
5. Documentation of compliance with required conservation activities (location of conserved habitat or payment of mitigation fees);
6. Documentation that on-site avoidance, minimization, and mitigation measures have been implemented and are functional for at least 5 years following project implementation (or 3 years following the last significant human intervention such as planting/restocking or irrigation, whichever is later);
7. Status of reserve system development with respect to authorized take/habitat loss;
8. Status of HCP adaptive management and research studies;
9. Any significant findings, events, or changes in management at established reserves; and
10. The results and analysis of effectiveness monitoring completed during the reporting period.

Information will be provided in text and graphic formats. Annual reporting dates will be specified in the Implementing Agreements.

The basic elements and functions of the Solano HCP comprehensive GIS-linked database system and HabiTrak integration is described in more detail in the HabiTrak Integration Study Grant Report, Solano Habitat Conservation Plan (LSA 2010b). This database will also incorporate data on effectiveness monitoring and the results of targeted studies, the status of ongoing research and adaptive management, and all relevant reports and baseline studies/assessments.



### 10.6.1 Programmatic Review

A programmatic review of the Solano HCP will be conducted at Years 10 and 20, at which time changes necessitated by any General Plan updates will be incorporated into the HCP. The programmatic review will also evaluate the effectiveness of the avoidance, minimization, and mitigation measures. It will address any changes in countywide land use patterns and the level of development that has occurred under the Plan to date. This time frame will correspond with the permit duration of the State 2081 Incidental Take Permit and will be designed facility its renewal. A programmatic review of the Monitoring and Adaptive Management Program will occur every 5 years during the duration of the Federal permit (30 years) and every 10 years in perpetuity (see Section 7.4.1.4). The programmatic review of the Monitoring and Adaptive Management Program will be incorporated into the review of the entire Solano HCP during years 10 and 20.

### 10.6.2 SID Annexations

The SCWA will annually inspect annexed lands to determine crop-type categories and land uses. The SCWA will also annually monitor general agricultural trends to determine if annexed lands convert to unsuitable agricultural forage crops at a higher rate than that of other agricultural lands in Solano County. The SCWA will use crop data from the Solano County Department of Agricultural Annual reports to monitor countywide crop trends.

The SCWA and Resource Agencies shall review hawk population trends and overall agricultural trends at 300 ac and 450 ac conversion points to assess whether future conversion of annexed lands to incompatible uses will require new management actions. In general, if Swainson's hawk populations are stable to increasing, and conversion rates within annexed lands are essentially equivalent (within 20 percent) to overall countywide agricultural trends (based on the County's annual crop reporting), annexations may continue until either the 600 ac conversion cap or 3,000 ac total annexation cap is reached. Annexations beyond the total 3,000 ac of annexed lands may only occur with a major plan amendment and implementation of applicable management actions as warranted at that time based on Swainson's hawk population trends (see Section 10.9.2.1).

## 10.7 RIGHTS, OBLIGATIONS, ASSURANCES, AND CHANGED/ UNFORESEEN CIRCUMSTANCES

### 10.7.1 Rights and Obligations of SCWA and Permittees

As of the effective date, the Permittees (SCWA and Plan Participants) may take Covered Species while carrying out Covered Activities in the Plan Area, as further authorized by and subject to the conditions of the Solano HCP Implementing Agreement, the HCP, and the 2081 Incidental Take Permits. The Covered Activities include all activities listed in Section 2.3 of the Solano HCP.

The authority issued to the Permittees applies to all of the elected officials, officers, directors, employees, agents, subsidiaries, contractors, and subcontractors, and all their officers, directors, employees, and agents, and all eligible third parties who engage in any Covered Activity. SCWA shall conduct an educational program to fully inform all such persons and entities of the terms and conditions of the permits, and the Permittees shall be responsible for supervising compliance with those terms and conditions. All contracts between Permittees and such persons and entities shall require compliance with the permits.



### 10.7.2 General Obligations

The Plan Participants, as Permittees, will fully and faithfully perform all obligations assigned to them, respectively, under the Implementing Agreement (Appendix D), the 2081 Incidental Take Permits, and the Solano HCP, including but not limited to the terms of Chapter 5.0 (Conservation Strategy), Chapter 6.0 (Avoidance, Minimization, and Mitigation Measures), Chapter 7.0 (Monitoring and Adaptive Management Program), and Chapter 10.0 (Plan Implementation).

In the event the CDFG, USFWS, and/or NOAA NMFS suspend or revoke the permits, the Permittees will remain obligated to fulfill their mitigation, enforcement, management, and monitoring obligations, and other HCP obligations, in accordance with the Implementing Agreement and applicable statutory and regulatory requirements for all land development activities authorized for take prior to the suspension or revocation.

### 10.7.3 Assurances to Third Party Participants in the Event of a Finding of Unforeseen Circumstances

Pursuant to the “No Surprises” regulations described below in Section 10.7.5, in the event of a finding of Unforeseen Circumstances (see Section 10.7.9), the USFWS and NOAA NMFS cannot require that additional land, water, or financial compensation be committed without the consent of the Permittees. To the extent that such assurances are available under Federal law, in the event of a Finding of Unforeseen Circumstances, and subject to the Permittees’ obligations under Section 10.7.2 of this HCP, the Permittees will not require such commitments from third-party participants without their consent regarding the impacts of Covered Activities on Covered Species beyond those measures required of the third-party participant according to the Implementing Agreement, Solano HCP, and permits.

### 10.7.4 Interim Obligations upon a Finding of Unforeseen Circumstances

If the Resource Agencies make a finding of Unforeseen Circumstances during the period necessary to determine the nature and location of additional or modified mitigation, the Permittees shall not appreciably contribute to reducing the likelihood of the survival and recovery of affected species.

### 10.7.5 Federal Assurances

Section 10 regulations [50 Code of Federal Regulations (CFR) 17.22(b)(2)(iii)] require that an HCP specify the procedures for dealing with unforeseen circumstances that may arise during implementation of the HCP. In addition, the Habitat Conservation Plan Assurances (“No Surprises”) Rule [50 CFR 17.21(b)(5)-(6) and 17.22(b)(5)-(6); 63 Federal Register (FR) 8859] defines “Unforeseen Circumstances” and “Changed Circumstances” and describes the obligations of the Permittees/Plan Participants, the USFWS, and the NOAA NMFS.

The purpose of the No Surprises Rule is to provide assurances to non-Federal landowners participating in habitat conservation planning under FESA that no additional land restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP, in light of unforeseen circumstances, without the consent of the Permittee(s). Changed Circumstances include changes in circumstances affecting a species or geographic area covered by



the HCP that can reasonably be anticipated and accommodated by the plan developers, USFWS, and NOAA NMFS (e.g., the listing of a new species, or fire or other natural catastrophic events in areas prone to such events). The policy defines Unforeseen Circumstances as “*changes in circumstances that affect a species or geographic area covered by the HCP that could not reasonably be anticipated by plan developers and USFWS and/or NOAA NMFS at the time of the Plan’s negotiation and development and that result in a substantial and adverse change in status of the Covered Species.*”

In determining whether any event constitutes an unforeseen circumstance, the USFWS and/or NOAA NMFS (collectively referred to as the Service) will consider, but not be limited to, the following factors:

- Size of the current range of the affected species
- Percentage of range adversely affected by the HCP
- Percentage of range conserved by the HCP
- Ecological significance of the portion of the range affected by the HCP
- Level of knowledge regarding affected species and the degree of specificity of the species’ conservation program under the HCP
- Whether failure to adopt additional avoidance, minimization, and mitigation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild

As described in the No Surprises Rule, 50 CFR Sections 17.22(b)(5)(C) and 17.32(b)(5)(C), the Service shall have the burden of demonstrating that Unforeseen Circumstances exist using the best available scientific and commercial data. Any findings of Unforeseen Circumstances must be clearly documented and based upon reliable technical information on the biological status and habitat requirements of the affected species.

Except where substantial threat of imminent, significant adverse impacts to a Covered Species exists, the Service shall provide the Permittees written notice of a proposed finding of Unforeseen Circumstances within 60 calendar days, during which time the Service shall meet with the SCWA and any affected Permittee(s) to discuss the proposed finding, to provide an opportunity for an affected Permittee to submit information to rebut the proposed finding, and to consider any proposed changes to the conservation strategies for the Plan Area.

If the Service determines that the Unforeseen Circumstances will affect the outcome of the HCP, additional conservation and mitigation measures may be necessary. Where the HCP is being properly implemented and an Unforeseen Circumstance has occurred, additional measures required of the Permittee(s) must be as close as possible to the terms of the original HCP and must be limited to modifications within a conserved habitat area or adjustments to lands or waters set aside as part of the HCP Conservation Program. Additional conservation and mitigation measures shall not involve the commitment of additional land or financial compensation, or restrictions on the use of land or other natural resources otherwise available for development/use under the original terms of the HCP without the consent of the Permittee(s). Resolution of the situation shall be documented by letters among the Service, SCWA, and the Plan Participants/Permittees.

In other words, in the event that Unforeseen Circumstances adversely affect a Covered Species during the term of the permit, the SCWA and Plan Participants would not be required to provide



additional financial mitigation or land use restrictions above those measures specified in the HCP, provided the HCP is being properly implemented. This HCP expressly incorporates by reference the permit assurances set forth in the Habitat Conservation Plan Assurances (“No Surprises”) Rule adopted by the USFWS and NOAA NMFS and published in the Federal Register on February 23, 1998 (50 CFR Part 17). Except as otherwise required by law or provided for under the HCP, including those provisions regarding Changed Circumstances, no further mitigation for the effects of the proposed project on Covered Species may be required from a Permittee(s) who is properly implementing the terms of the HCP and the incidental take permit. The HCP will be properly implemented if the commitments and provisions of the HCP and the incidental take permit have been or are being fully implemented by the Permittee(s).

The Permittee(s) will be responsible for implementing all remediation activities, as described below, from the moment a circumstance occurs to the point when the “changed circumstance” becomes an “unforeseen circumstance.”

#### 10.7.6 State Assurances

The CDFG will issue the Plan Participants a State permit under Section 2081(b) of the CESA, authorizing incidental take by the Permittees of each State-listed Covered Species resulting from Covered Activities in the Plan Area, to the extent permitted by law. The CDFG shall monitor the Permittees’ compliance with the State 2081(b) Incidental Take Permit. The CDFG shall also provide technical assistance and timely review, collaboration, and consultation regarding implementation of the HCP, as provided in the 2081(b) Incidental Take Permit and the Solano HCP, throughout the duration of the State permit.

Neither CESA nor the Fish and Game Code (Sections 2080 to 2085) contain a rule or regulation similar to the Federal “No Surprises” Rule. However, subject to CESA regulations, the CDFG can provide assurances regarding additional mitigation based on the specific minimization and mitigation measures included in individual permits. If an adequate basis exists for determining that the measures in a particular permit will effectively minimize and fully mitigate the impacts authorized during the full term of the permit, the CDFG can provide commensurate assurances to the permit holder that additional measures will not be required.

Under the proper findings, the CDFG shall not amend, suspend, or revoke the Section 2081(b) Incidental Take Permit nor otherwise impose or seek to impose on a Plan Participant additional mitigation or compensation requirements for Covered Activities other than those provided in the Solano HCP and 2081(b) Incidental Take Permit, including but not limited to commitments of additional land or financial compensation during the effective time frame of the permit, unless the CDFG determines that continuing activities authorized under the 2081(b) Incidental Take Permit would jeopardize the existence of a Covered Species, or unless otherwise required by law. If the CDFG makes a jeopardy determination, it shall amend, suspend, or revoke the permit, or require such additional mitigation or compensation only if, and to the extent, necessary to avoid jeopardy. The amendment, suspension, and revocation of 2081(b) permits are governed by the CESA and the Fish and Game Code, which is promulgated to implement the CESA.

When providing assurances pursuant to this subdivision, the CDFG’s determination of the level of assurances and the time limits specified in the Implementation Agreement for assurances may be based on localized conditions and shall consider all of the following:



- Level of knowledge of the status of Covered Species and Natural Communities
- Adequate analysis of the impact of take on Covered Species
- Use of the best available science to make assessments about the impacts of take, the reliability of mitigation strategies, and the appropriateness of monitoring techniques
- Size and duration of the Plan and the appropriateness of the size and duration of the Plan with respect to quality and amount of data
- Sufficiency of mechanisms for long-term funding of all components of the Plan and its contingencies
- Degree of coordination and accessibility of centralized data for analysis and evaluation of the Plan effectiveness
- The degree to which a range of foreseeable circumstances are considered and provided for under the Monitoring and Adaptive Management Program

### 10.7.7 Future Federal Actions

#### 10.7.7.1 Section 7 Consultations with the USFWS and NOAA NMFS

Nothing in the Implementing Agreement is intended to alter the obligation of a Federal agency to consult with the USFWS and NOAA NMFS pursuant to Section 7 of the FESA (16 United States Code [USC] Section 1536(a)). Unless otherwise required by law, in any Section 7 Consultation involving the Permittees or a third-party participant and a proposed public or private development project in the Plan Area that may adversely affect one or more Federally listed Covered Species, the USFWS and NOAA NMFS shall ensure that the Biological Opinion for the proposed project is consistent with the Biological Opinion issued for the HCP and the Federal permit, provided the proposed project is consistent with the HCP and the Federal permit. Unless otherwise required by law, the USFWS and NOAA NMFS shall not impose measures on an existing or prospective third-party beneficiary in excess of those that have been or will be required by this HCP, its Implementing Agreement, and the permits.

#### 10.7.7.2 Designation of Critical Habitat

The Solano HCP provides a comprehensive, habitat-based approach to the protection of Covered Species by focusing on the lands essential for the long-term conservation of the Covered Species and appropriate management for those lands. This approach is consistent with the overall purposes of the FESA to provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved. FESA regulations specify that the criteria to be used in designating critical habitat include “those physical and biological features that are essential to the conservation of a given species and that may require special management considerations or protection” (50 CFR Section 424.12(b)). This HCP provides for the protection of “those physical and biological features essential to the conservation” of the Covered Species in a manner consistent with USFWS regulations concerning the designation of critical habitat.

Critical habitat is currently designated for 18 of the 22 currently Federally listed Covered Species in Solano County:



- California red-legged frog
- California tiger salamander
- Chinook salmon – Central Valley Spring-Run ESU
- Chinook salmon – Sacramento River Winter-Run ESU
- Colusa grass
- Conservancy fairy shrimp
- Contra Costa goldfields
- Delta green ground beetle
- Delta smelt
- Green sturgeon
- Soft bird's-beak
- Solano grass
- Steelhead – Central California Coast DPS
- Steelhead – California Central Valley DPS
- Suisun thistle
- Valley elderberry longhorn beetle
- Vernal pool fairy shrimp
- Vernal pool tadpole shrimp

These critical habitat designations cover significant portions of the Jepson Prairie and vernal pool/grasslands in and adjacent to the eastern portions of the Cities of Suisun City and Fairfield, the Delta and Suisun Marsh waterways, the hills in the western portion of Solano County (e.g., the California Red-Legged Frog Conservation Area, Figure 4-14), and the riparian habitat along Putah Creek.

Provided the Plan Participants have complied with their obligations under the Implementing Agreement, the Solano HCP, and the Federal permit, the USFWS and NOAA NMFS will ensure that, to the maximum extent allowable after public review and comment, lands within the jurisdiction of the Plan Participants will not be designated as critical habitat for any Covered Species that is Federally listed in the future. Subject to available funding, the USFWS and NOAA NMFS agree, unless otherwise required by law after public review and comment, to reassess and revise the boundaries of any existing designated critical habitat of Covered Species to exclude lands under the jurisdiction of the Plan Participants. The County of Solano and the City of Benicia are not Plan Participants. As such, development activities under their land use or regulatory control or operation and maintenance actions carried out by them are not Covered Activities under the HCP. The Plan Participants understand that the exemption does not apply to these entities.

#### 10.7.8 Consultations with the CDFG

Except as otherwise required by law, the CDFG shall not recommend or otherwise seek to impose through consultation with other public agencies any mitigation, compensation, or habitat enhancement requirements for impacts to Covered Species resulting from Covered Activities in the Plan Area that are in excess of those that have been or will be required by the 2081(b) Incidental Take Permit.



### 10.7.9 Changed and Unforeseen Circumstances

The following sections address several circumstances that may be regarded as changed or unforeseen and include the following:

- Fire
- Flood
- Drought
- Invasive Species
- Disease and Predation
- Significant Changes in County Land Use Assumptions
- Toxic Spills and Illegal Dumping of Toxic Wastes
- Vandalism of Reserves

#### 10.7.9.1 Natural Communities Lost to Fire

Fire is a natural component of the communities present in the Plan Area; however, in certain situations, fire can result in significant adverse consequences to biological resources and Covered Species. Significance depends on a number of factors such as timing, reoccurrence interval, community type, and species of concern. Fire in vernal pool habitats is typically considered to be an appropriate management tool, and most vernal pool reserves are recommended to have “let burn” policies except in locations where adjacent non-preserve lands or structures may be adversely affected. In these habitats, fire suppression activities (e.g., creation of fire breaks, vehicle access) may create more damaging and long-term adverse effects than the fire itself. In habitats supporting woody vegetation (e.g., woodlands or riparian habitats or in callippe silverspot butterfly breeding/larval development habitat), fire can result in the loss of key species and type conversion to other habitats if the intervals between fires are too frequent.

In the event of a fire on a preserve, preserve managers will follow protocols established in the preserve’s Resource Management Plan and work closely with local fire response crews to minimize impacts on sensitive communities and Covered Species within safety limits. The SCWA and the Plan Participants will assess the extent of damage and, if appropriate, implement land management and habitat restoration measures within affected preserves to ensure native vegetation is re-established through active or passive management. Ongoing monitoring will be continued to assess natural regeneration and/or reappearance of Covered Species, consistent with Monitoring and Adaptive Management Program protocols discussed in Chapter 7.0. If natural regeneration does not occur at a sufficient rate to restore the habitats for which the reserve was established, the SCWA and Plan Participants will consult with the Resource Agencies to determine appropriate and mutually agreed upon remediation actions consistent with the provision of Section 10.7.1. The SCWA and Plan Participants will provide information on significant fire damage as part of annual reporting.

Fire history data on which to assess Changed Circumstances is not readily available for most of Solano County. Given the number and dispersed nature of planned and anticipated reserves, fire would not affect a significant portion of the reserve system at any one time. Since most of the Solano HCP reserves will be located in grassland-dominated areas, the size and consequences of a given fire are likely not relevant for most Covered Species. A rapid reoccurrence of fires and/or occurrence of fires outside the fire season (May through October) could result in changes to reserve system values.



For purposes of the Solano HCP, a fire frequency of 5 to 10 years is anticipated for grassland-dominated habitats; a fire frequency of 15 to 20 years would be typical for riparian and woodland communities. Fire potential within the Plan Area is typically greatest from June through October, when dry vegetation co-occurs with low humidity. Fires that occur at more frequent intervals in the same area may result in “type conversion” of natural communities. Since fires in consecutive years in the same area would be unlikely because of the time needed to develop fuel loads, repeated fires in the same area in less than 3 years are considered an Unforeseen Circumstance.

### 10.7.9.2 Flooding

Periodic flooding can also be beneficial and desirable; however, in some cases, extreme flood events can cause substantial environmental damage. Anticipated issues associated with flooding include bank erosion, loss of riparian plantings and preserved habitat, erosion or failure of impoundments for amphibian breeding habitat, and deposition of debris in wetlands and uplands. During flood events, overbank flows have entrapped native and nonnative fish in vernal pool systems adjacent to Solano County streams. The presence of fish in areas where they are not typically present can significantly reduce or eliminate California tiger salamander and California red-legged frog in affected water bodies for at least one season.

All storms at or below the 50-year event on a given stream are considered a Changed Circumstance, and remedial actions are funded by the Plan. Storms at or below the 50-year event are reasonably likely within the 30-year permit term. Flooding caused by a storm larger than a 50-year event is considered an Unforeseen Circumstance.

Following the flood event, the site will be evaluated to determine appropriate corrective actions needed to restore habitat through active management or natural processes. Corrective actions will be implemented within 1 year of the failure.

### 10.7.9.3 Natural Communities are Lost to Drought

Solano County has a Mediterranean climate with roughly 95 percent of the total annual rainfall occurring from October through April. Mean annual precipitation in the Plan Area ranges from 15 inches in the southern Montezuma Hills to 40 inches in the Blue Ridge/Vaca Mountains in northwestern Solano County.

Drought is a natural part of a Mediterranean climate to which species and natural communities have adapted. However, a prolonged drought could seriously damage the preserve system, especially new restoration plantings that have yet to become established and amphibian populations as a result of lost or reduced inundation periods in breeding habitat (e.g., inadequate winter filling and storage).

Consistent with the East Contra Costa HCP/NCCP, which covers an area with similar climatic conditions, drought conditions are defined as any water year (October 1 to September 30) in which total rainfall does not exceed 75 percent of mean annual precipitation (Jones & Stokes 2006). Available data from rain gauges in the Plan Area were reviewed to define droughts and estimate their expected frequency of occurrence. Droughts that occur within this expected frequency (duration and frequency) are considered a Changed Circumstance whereas droughts outside this frequency are considered an Unforeseen Circumstance.



Data from the Vacaville rain gauge records from October 1, 1951, through September 30, 2008, were reviewed to estimate drought (75 percent of the average rainfall or mean seasonal precipitation) frequency. The data show that 15 drought years (26 percent) were recorded over this 58-year period, ranging in duration from 1 to 4 years, with an average drought period of 2 years. One 4-year drought was recorded (1988 through 1991). Using this data and the assumptions employed in the East Contra Costa HCP/NCCP, 8 years of drought ranging in duration from 1 year (53 percent) to 4 years (6.7 percent) are expected during the 30-year permit term. Any drought that lasts for more than 4 successive years or droughts that occur with greater frequency (e.g., more than two droughts spanning 2 years) are considered Unforeseen Circumstances.

The Solano HCP Landscape Monitoring requirements (Section 7.4.4) include drought monitoring. Restoration plans require contingency measures to minimize the risk of losing mitigation plantings and restored habitats due to drought. Assessment measures include the following:

- Monitoring County rain data in the Plan Area and gauges established in the preserve system to determine if the amount of seasonal rainfall at the end of March and April indicates a drought (near 75 percent of Mean Seasonal Precipitation [MSP]).
- Monitoring mitigation sites that are beyond their establishment periods (i.e., no longer sustained by irrigation) for stress due to low soil moisture or high evapotranspiration rates.

During drought conditions, the SCWA will assess damage and initiate the following actions:

- Prepare damage assessment report.
- Recommend actions to improve effects on covered species (e.g., provision of temporary artificial water sources).
- Recommend actions to improve effects on restored habitat (e.g., supplemental irrigation).
- Implement measures through adaptive management.

#### 10.7.9.4 Invasive Species

Disease and predation are naturally occurring phenomena and are expected to occur over the life of the Solano HCP. The significance of such phenomena depends on a number of factors such as timing, community type, and species of concern. In most areas, populations of Covered Species typically occur in equilibrium with normal disease and predation, even if populations occasionally experience severe but localized reductions in numbers. However, the spread or introduction of diseases (e.g., the West Nile Virus, bird flu, and Sudden Oak Death Syndrome) could adversely affect the population levels of some species, particularly avian species such as Swainson's hawk, or habitats such as oak woodlands. The Solano HCP incorporates significant requirements for implementing and providing long-term funding for the control of aggressive, invasive exotic species in habitat reserves and mitigation lands, including minimum standards for certification of commercial and institutional mitigation and conservation banks (see Section 10.5).

However, a new and aggressive exotic species could invade the preserve system. Similarly, infestations of a new disease that affects covered or dominant species in the Plan Area could significantly affect the preserve system. Large infestations (e.g., affecting greater than 25 percent of the preserve system) of a new or existing disease, exotic plant, or exotic animal can become



extremely expensive to control and could heavily tax the operating budget of the HCP. For the purposes of the Solano HCP, infestations of new diseases or invasive exotic species, or the spread of existing invasive species beyond 25 percent of the baseline condition within the preserve system, are considered Unforeseen Circumstances. The monitoring program will identify existing exotic species in the preserve system so that new exotic species can be identified quickly and removed.

When a disease problem is detected, the SCWA will contact CDFG and USFWS to collaborate on determining the best method of measuring, monitoring, and eradicating or controlling the disease before it spreads beyond the 25 percent threshold of Unforeseen Circumstances. Planned responses to invasion by exotic species or disease entail the following:

- Determine the best method for measuring and tracking extent.
- Prepare a damage assessment report.
- Recommend and plan actions to address the threat.
- Respond through the Monitoring and Adaptive Management Program.

If the infestation results in substantial impacts to natural communities such that it cannot be addressed under the existing operating budget, the SCWA shall prepare a report identifying the problem and include a cost analysis for funding a control program. This report shall be submitted to the Resource Agencies for approval.

#### 10.7.9.5 Significant Changes in County Land Use Patterns

The Solano HCP reserve design assumes that much of the land outside of the Urban Growth Boundaries (UGBs), under the jurisdiction of Solano County, is under limited threat for urban development. This assumption is based on the long-term commitment to city-centered urban growth outlined in the County's General Plan and in several limited growth measures (e.g., Solano County Measure T, Fairfield Orderly Growth Initiative). Another significant regulatory mechanism that limits urban development in Solano County is the State's Suisun Marsh Protection Act (see Section 3.6 for additional information). While the County and local growth controls have sunset provisions (Solano County Measure T, December 31, 2028) and all land use regulations can be changed by public vote, practice has shown that such growth limits are extremely difficult to eliminate once they are established.

Future changes in land use, with or without current or similar growth restrictions, are not expected to affect the ability to achieve HCP reserve/preserve conservation commitments. The Solano HCP requires habitat mitigation establishment, including establishment of the reserve and funding mechanism prior to issuing any take permits for most species and community types. Changes in current regulatory restrictions, however, are most likely to affect the broader matrix in which the reserve system exists.

A Changed Circumstance will occur if a current or future Countywide Orderly Growth Initiative or similar measure expires and is not re-adopted or extended. If such a circumstance occurs, the SCWA, Plan Participants, and Resource Agencies will review conservation strategies to determine if the reserve design would be significantly affected or if minor actions would be sufficient to address changed circumstances. Actions that could be considered include shifts altering reserve design, layout, or management (e.g., reduce or shift the areas/locations acceptable for establishing



reserves) and changing management activities on existing lands. A major amendment to the Solano HCP will be required if changes in County land use significantly affect the conservation strategy.

No Unforeseen Circumstances are identified based on potential changes in County Land Use Patterns (e.g., its city-centered urban growth practices and significant new development outside the urban or industrial development areas designated in the Solano County 2008 General Plan).

#### **10.7.9.6 Toxic Spills and Illegal Dumping of Toxic Wastes**

If toxic spills or illegal dumping of toxic wastes occurs, the SCWA and the appropriate participating agency will notify the applicable Resource Agencies. Notification will occur in writing and by telephone within 7 calendar days of becoming aware of an existing or potential situation. The SCWA and the applicable participating agency or third party, with the concurrence of the agencies' representatives, shall determine the extent of damage to the reserve(s) and identify and implement any appropriate remediation response. In addition, consultation with local environmental health departments or other emergency response personnel shall occur to determine the appropriate agencies and alternatives available for providing remediation. The SCWA and the Plan Participants maintain all rights to prosecute and seek remediation from responsible parties for toxic spills and illegal dumping of toxic materials.

Due to the geographic dispersion of the Solano HCP reserves within Solano County, it is unlikely that a toxic spill or illegal dumping of toxic substances would affect a substantial portion of the reserve system. Due to the physical separation of the majority of reserves, as well as the standard practices for responding to such incidents, spills or illegal dumping would be unlikely to substantially affect the reserve system. If one of the circumstances described above occurs and results in damage to more than 20 percent of the total reserve lands, an Unforeseen Circumstance will have occurred.

#### **10.7.9.7 Vandalism of Reserves**

Structures in the Preserve System such as gates, fences, signs, or administrative buildings could be vandalized during the permit term. Such damage is considered reasonably likely to occur during the permit term and is therefore considered a changed circumstance. Remedial measures funded in this Plan include the repair or replacement of structure or facilities damaged by vandalism. No Unforeseen Circumstances are identified.

### **10.8 OTHER MEASURES AS REQUIRED BY DIRECTOR**

This section acknowledges that under the FESA, additional measures may be required by the USFWS and NOAA NMFS. Any such measures would be attached as an appendix to the Plan and incorporated into the Implementing Agreement.

### **10.9 REVISIONS AND AMENDMENTS**

Two types of changes may be made to the HCP and/or the HCP permits, Implementing Agreements, and/or its associated documents:



- Minor Amendments
- Major Amendments

Revisions and amendments shall be processed in accordance with all applicable legal requirements, including but not limited to the FESA, CESA, NEPA, CEQA, and any other applicable State or Federal regulations.

### 10.9.1 Minor Amendments

Minor amendments to the Solano HCP are changes provided for under the operating conservation program, including adaptive management changes, and responses to Changed Circumstances that do not require amendment of the Section 10(a)(1)(B) permit, 2081 Incidental Take Permit, or Implementing Agreement, but do require preapproval by the USFWS and CDFG before being implemented. Minor amendments do not modify the scope or nature of activities or actions covered by the Section 10(a)(1)(B) permit or 2081 Incidental Take Permit or result in operations under the HCP that are significantly different from those analyzed in connection with the approved HCP. Minor amendments are changes that do not affect the HCP Impact Assessment or Conservation Strategy, and do not affect the ability of Permittees to achieve the HCP goals and objectives.

Minor amendments to the HCP may include, but are not limited to, the following:

- Formal State or Federal listing of HCP Covered Species. All Covered Species in the HCP receive the same level of conservation commitment as if they are already formally listed as threatened or endangered species. If the USFWS formally lists Covered Species in the future, no changes to the terms or conditions of the Implementing Agreement or modifications to the avoidance, minimization, and mitigation measures are required, providing the HCP is being fully implemented.
- Updating construction windows for the HCP Covered Species in the event that standard construction windows established for species covered by the HCP are revised by the USFWS, NOAA NMFS, or CDFG.
- Modifying maps or exhibits to correct errors in mapping or to reflect previously approved changes in the Section 10(a)(1)(B) permit, 2081 Incidental Take Permit, or HCP.
- Modifying existing or establishing new incidental take avoidance measures.
- Changes to alter the wording or implementation of avoidance, minimization, and mitigation measures in a manner that does not materially change associated conservation objectives provided such changes are mutually agreeable to the Plan Participants and the Resource Agencies.
- Modifying reporting protocols for Annual Reports.
- Minor changes to monitoring or reporting protocols.
- Revising mitigation area enhancement and management techniques.
- Approximately 3,250 ac of locally pre-approved but currently undeveloped projects are present within Plan Participant jurisdictions (see Table 2.8). Many of these projects represent long-term (5 to 10 years) build outs. Because of prior local approvals and, in some cases, development agreements, Plan Participants are unable to change existing project approvals or impose additional mitigation measures in conformance with HCP avoidance, minimization, and



mitigation measures and fees. Since these developments must comply with FESA and CESA and are typically conditioned to provide proof of compliance prior to issuance of local grading permits, some pre-approved projects could elect to comply with FESA and CESA through the HCP. In the Solano HCP, these pre-approved projects have been treated as developed (e.g., impacts to biological resources have already occurred) and have not been considered important for the development of the preserve system. Provided that pre-approved projects agree to conform to all of the applicable requirements of the HCP and 2081(b) Incidental Take Permit, their inclusion and the added level of take authorized by the permits shall be considered a minor amendment.

- Any other modifications to the HCP consistent with the HCP goals and objectives that the USFWS, NOAA NMFS, and CDFG have analyzed and agreed to, and that will not result in significantly different operations to those analyzed in connection with the approved HCP.
- The approval or execution of agreements to facilitate execution and implementation of the HCP that were not specifically considered in the HCP.
- Actions undertaken by the SCWA and Plan Participants to contract duties specified in the HCP to a third party under their direct control.
- Project changes and amended conditions of approval that either reduce or do not affect the amount or extent of authorized take.
- Actions that do not affect CDFG's previous determination that issuance of the incidental take permit meets and is otherwise consistent with the permitting criteria. Continued adherence to and implementation of the avoidance and minimization measures included in the incidental take permit's Conditions of Approval and Mitigation Monitoring and Reporting Program (MMRP) will minimize and fully mitigate impacts associated with the taking of Covered Species.
- Actions that do not require additional CEQA review.
- Actions that will not significantly modify the scope or nature of the permitted project or activity, or the minimization, mitigation, or monitoring measures in the incidental take permit [see California Code of Regulations (CCR) Section 783.6(c)(4)].

Minor amendments may be proposed by the Resource Agencies or SCWA and the Plan Participants. The party proposing a minor amendment to the HCP shall circulate the proposed revision along with an explanation of why the revision is necessary or desirable and a description of why the party believes the effects of the proposed revision are more beneficial than, and are not significantly different from, those described or anticipated under the HCP as originally adopted. If the Plan Participants and Resource Agencies agree to the proposed revision, the SCWA and Plan Participants shall process and implement the revision.

The SCWA, acting on behalf of a Plan Participant, may submit the proposed amendment to the Resource Agencies for review. The Resource Agencies shall each respond in writing within 60 calendar days of receipt of the request. The responses shall: (1) concur with the proposed amendment; or (2) identify additional information or request for a reasonable time extension (not to exceed 90 days) necessary to enable the Resource Agencies to approve or disapprove the amendment; or (3) disapprove the amendment. If any of the Resource Agencies disapproves the amendment, it must be processed as a major amendment to the Solano HCP, Section 10(a)(1)(B) permit, and 2081 Incidental Take Permit. If any Resource Agency disapproves the amendment, it shall include in its written response an explanation of its determination. If the Resource Agencies



have not responded within the above time limits, the proposed amendment shall deem to be approved.

Resource Agency requests for minor amendments shall follow a similar procedure for submitting proposed revisions to the SCWA and Plan Participants for review. The SCWA and Plan Participants shall each respond in writing within 60 calendar days of receipt of the request. The responses shall: (1) concur with the proposed revision; or (2) identify additional information necessary to enable the SCWA and Plan Participants to approve or disapprove the revision; or (3) disapprove the revision. If the SCWA or any of the Plan Participants disapprove the revision, it shall include in its written response an explanation of its determination, and the amendment will not be implemented.

### 10.9.2 Major Amendments

Major amendments include amendment(s) to the Solano HCP, incidental take permits, Implementing Agreements, and/or NEPA/CEQA document(s).

#### 10.9.2.1 Amendments to the Solano HCP

Major amendments to the Solano HCP will require amendment of the Section 10(a)(1)(B) permit and 2081 Incidental Take Permit. The following summarizes the types of changes that may require a major amendment and the procedures for approval.

Major amendments may include any of the following changes to the HCP:

- The listing and designation of critical habitat under the FESA or CESA of a new species within the Plan Area that is not an HCP Covered Species, but which may be affected by HCP Covered Activities and for which the SCWA and Plan Participants seek coverage under the HCP, Section 10(a)(1)(B) permit, or 2081 Incidental Take Permit.
- Significant changes to the HCP that were not previously addressed include but are not limited to the following:
  - Changes to the method for calculating compensation for incidental take, which would increase the levels of incidental take permitted or increase mitigation required under the HCP.
  - Changes to funding except as otherwise provided for in the HCP to account for inflation, adaptive management, and Changed Circumstances.
- Changes to the Covered Activities, which were not addressed in the HCP as originally adopted and which otherwise do not meet the revision provisions above.
- Amendments to the city Plan Participants' urban boundaries as shown on Figures 2-2 through 2-7. As discussed above, a major amendment to the Plan is anticipated 15 to 20 years from the adoption of the HCP in order to address growth beyond the time frames for the current General Plans.
- Extending the term of the HCP permits past the 30-year term.



Specific procedures for requesting amendments to the Section 10(a)(1)(B) permit are described below.

### 10.9.2.2 Amendments to the Section 10(a)(1)(B) Permit and 2081 Incidental Take Permit

Following receipt of a complete application package for a proposed major amendment to a Section 10(a)(1)(B) permit and 2081(b) Incidental Take Permit, the USFWS and/or NOAA NMFS shall publish a notice of the proposed amendment in the Federal Register as required by the FESA and CESA. The USFWS, NOAA NMFS, and CDFG shall use reasonable efforts to process the proposed amendment. The amendment of a Section 10(a) permit shall be treated as an original permit application. Such applications typically require submittal of a revised HCP, a completed permit application form with appropriate fees, and preparation of an environmental review document in accordance with NEPA. Similarly, amendments to the 2081(b) Incidental Take Permit may require modifications to the HCP avoidance, minimization, and mitigation measures and subsequent environmental analysis under CEQA (CCR Title 14, Section 783.6(c)). However, the Plan Participants acknowledge that specific document requirements may vary based on the nature of the amendment.

### 10.9.3 Permit Renewal

Upon expiration, the Section 10(a)(1)(B) and 2081 permits may be renewed without the issuance of a new permit, provided the permit is renewable and that biological circumstances and other pertinent factors affecting Covered Species are not significantly different than those described in the original HCP. To renew the permit, the SCWA and Plan Participants shall submit the following to the Resource Agencies in writing:

- A request to renew the permit
- Reference to the original permit number
- Certification that all statements and information provided in the original HCP and permit application, together with any approved HCP amendments, are still true and correct, and include a list of changes
- A description of any take that has occurred under the existing permit
- A description of any portions of the project still to be completed, if applicable, or what activities under the original permit the renewal is intended to cover

If the Resource Agencies concur with the information provided in the request, they shall renew the permit consistent with permit renewal procedures required by Federal (50 CFR 13.22) and State regulations. If the SCWA and Plan Participants file a renewal request and the request is on file with the issuing Resource Agency's office at least 30 days prior to the permit's expiration, the permit shall remain valid while the renewal is being processed provided the existing permit is renewable. However, the SCWA and Plan Participants may not take listed species beyond the quantity authorized by the original permit. If the SCWA and Plan Participants fail to file a renewal request within 30 days prior to permit expiration, the permit shall become invalid upon expiration.



## 10.10 SUSPENSION/REVOCATION

The Resource Agencies may suspend or revoke their respective permits if the SCWA and Plan Participants fail to implement the HCP in accordance with the terms and conditions of the permits or if suspension or revocation is otherwise required by law. Suspension or revocation of the Section 10(a)(1)(B) permit, in whole or in part, by the USFWS and/or NOAA NMFS shall occur in accordance with 50 CFR 13.27–29, 17.32(b)(8). Suspension or revocation of the 2081 Incidental Take Permit, in whole or in part, by the CDFG shall occur in accordance with Fish and Game Code Section 2820(b)(3)(A–D).

In the event that one or more of the Resource Agencies revoke or suspend one or more of the Incidental Take Permits, the assurances granted to third parties will remain in effect for every third party that fulfills the mitigation obligations imposed by the Plan Participant permit holder in compliance with the Solano HCP as it existed on the date that project approval was originally granted, and that all relevant fees are paid and all applicable avoidance, minimization, and mitigation measures are implemented.

## 10.11 SEVERABILITY

If one of the Plan Participants fails to obtain its permits or has its permits revoked for failure to comply with the Solano HCP, less authorized conversion of habitat/take will be covered by the HCP. With regard to funding adequacy, the reduction in authorized conversion of habitat/take would result in a similar reduction in acres of mitigation land to be acquired, restored, managed, enhanced, and administered in perpetuity. As a pay-as-you-go system, adequate funding would remain to implement the Solano HCP as it relates to authorized levels of development and associated Covered Activities for the remaining Plan Participants.

