GENERAL CONSERVATION / MITIGATION STRATEGY GUIDANCE

OVERVIEW

Purpose of the SEP-HCP is two-fold: 1) facilitate compliance with the Endangered Species Act; *and* 2) conserve the Covered Species.

Conservation Strategy – composed of several parts:
Note: some or all of the components of the conservation strategy may be different for different species

1. Biological Goals – what does the plan aspire to accomplish? What is the expected outcome?
2. Specific Biological Objectives –what are the measurable targets designed to achieve goals
    a. Total acres of habitat to be protected
    b. Types of habitat to be protected
    c. General distribution of preserves (*caution: avoid "green-lining"!!!*)
    d. Management targets / desired conditions
    e. Others…
3. Implementation Measures – specific conservation commitments / actionable plan to meet objectives
    a. Preserve acquisitions
        i. Available conservation tools: fee simple ownership, conservation easements, regulations (?)
        ii. General approach for acquisitions (up-front preservation, phased acquisitions, "pay as you go", rolling/term acquisitions, mitigation banking; mitigation funds, etc…)
    b. Management plan
        i. General species and habitat management
        ii. Dealing with threats
        iii. Managing other uses of preserve land: agriculture, public uses, infrastructure corridors, hunting, etc…
    c. Monitoring and reporting program – track progress towards meeting commitments and achieving goals and objectives; monitor status of covered species in preserves
4. Participation Process – how to determine mitigation needs for RHCP participants
    a. Application process
    b. Habitat determinations
    c. Mitigation assessments
    d. Fees and other forms of acceptable mitigation

GENERAL REGULATORY GUIDANCE and POLICY on MITIGATION

Endangered Species Act Section 10(a)(2)(B):

If the Secretary finds, after opportunity for public comment, with respect to a permit application and the related conservation plan that –

i. the taking will be incidental;
ii. the applicant will, ***to the maximum extent practicable, minimize and mitigate the impacts of such taking***;
iii. the applicant will ensure that adequate funding for the plan will be provided;

iv. ***the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild***; and
v. the measures, if any required under subparagraph (a)(iv) will be met;

and he has received such other assurances as he may require that the plan will be implemented, the Secretary shall issue the permit. [*emphasis added*]

USFWS HCP Handbook (Chapter 3, Section B-3 – starting on page 3-19)

- Mitigation programs should be based on sound biological rationale; they should also be practicable and commensurate with the impacts they address. (pg. 3-19, 3rd paragraph)
- Mitigation actions under HCPs usually take one of the following forms:
  - Avoiding the impact (to the extent practicable);
  - Minimizing the impact;
  - Rectifying the impact;
  - Reducing or eliminating the impact over time; or
  - Compensating for the impact. (pg 3-19, 4th paragraph)
- Issuance of a Section 10 permit must not "appreciably reduce" the likelihood of the survival and recovery of the species in the wild. Note that this does not explicitly require an HCP to recover listed species, or contribute to their recovery objectives outlined in a recovery plan. This reflects the fact that HCPs were designed by Congress to authorize incidental take, not to be mandatory recovery tools (pg 3-20, 2nd paragraph). However, recovery is nevertheless an important consideration in any HCP effort… Thus, contribution to recovery is often an integral product of an HCP, but it is not an explicit statutory requirement (pg. 3-20, 3rd paragraph). [*original emphasis*]
- Re: Habitat Banks/Mitigation Credit Systems –
  - … considerable promise as a mitigation strategy because:
    i. It allows owners of endangered species habitat to derive economic value from their land as habitat;
    ii. It allows parties with mitigation obligations to meet their obligations rapidly (mitigation lands are simply purchased as credits); and
    iii. The mitigation lands are provided prior to the impact (eliminating uncertainty about whether a permit might fail to fulfill the HCP's obligations after the impact has occurred). (pg. 3-21, 3rd paragraph) [*original emphasis*]
- The type of mitigation habitat and its proximity to the area of impact will need to be considered. Generally the location of replacement habitats should be as close as possible to the area of impact, it must also include similar habitat types and support the same species affected by the HCP. However, there may be good reason to accept mitigation lands that are distant from the impact area -- e.g., if a large habitat block as opposed to fragmented blocks can be protected or if the mitigation lands are obtained through a mitigation fund. (pg 3-21, paragraph 4)
- Potential types of habitat mitigation include, but are not limited to
  i. Acquisition of existing habitat;
  ii. Protection of existing habitat through conservation easements or other legal instruments;
  iii. Enhancement or restoration of disturbed or former habitats;
  iv. Prescriptive management of habitats to achieve specific biological characteristics; and
  v. Creation of new habitats. (pg 3-21, 5th paragraph)

- When habitat losses permitted under an HCP are permanent, protection of mitigation lands normally should also be permanent. (pg. 3-22, 4th paragraph)

BIOLOGICAL GOALS AND OBJECTIVES

GUIDANCE FROM USFWS 5-POINT POLICY

- Biological goals are the broad, guiding principles for the operating conservation program of the HCP. They are the rationale behind the minimization and mitigation strategies.
- Biological objectives are the different components needed to achieve the biological goal such as preserving sufficient habitat, managing the habitat to meet certain criteria, or ensuring the persistence of a specific minimum number of individuals.
- …the biological goals of an individual HCP are not necessarily equivalent to the range-wide recovery goals and conservation of the species. However, if viewed collectively, the biological goals and objectives of HCPs covering the same species should support the recovery goals and conservation of the species.
- The biological goals and objectives of an HCP are commensurate with the specific impacts and duration of the applicant's proposed action.
- …the permittee's obligation for meeting the biological goals and objectives is proper implementation of the operating conservation program of the HCP.

CONSIDERATIONS

- Biological goals and objectives should be defined for each of the covered species, and possibly for species included in other categories.
- Consider the scope of the incidental take request.
    - SEP-HCP will be a voluntary mechanism for ESA compliance for non-federal projects located in the Plan Area.
    - The SEP-HCP must only cover the incidental take associated with projects that voluntarily enroll in the plan. However, you can choose to cover more than that, if desired.
    - The amount of take authorized under the SEP-HCP may be less (possibly even much less) than the total amount of habitat loss/species impacts projected to occur across the Plan Area over the permit duration due to participation rates.
        - BCCP estimates that only 10% of projects potentially affecting habitat have actually sought participation in the plan, despite years of reduced participation fees. (*per citation in draft Comal County RHCP dated April 2010*)
        - Williamson County assumes that approximately 20% of anticipated impacts will seek coverage through their RHCP.
        - Hays County assumes that 33% of private sector projects will participate in their plan.
        - Comal County assumes that 50% of impacts will be authorized through their plan.

POSSIBLE ALTERNATIVES FOR BIOLOGICAL GOALS

1. REGIONAL RECOVERY: Achieve the equivalent of **regional recovery** for a species within the Plan Area.
    a. Pros:
        i. Would result in the highest degree of conservation for the species.
        ii. Committing to regional recovery could allow SEP-HCP to cover all projected impacts to the species in the Plan Area, regardless of formal participation in the SEP-HCP or type of activity.
        iii. Would alleviate concerns from Camp Bullis regarding endangered species pressures on training missions.
        iv. Could support a permit duration beyond 30 years.
    b. Cons:
        i. Likely to be extremely expensive to achieve and funding needs would likely far outpace the collection of mitigation fees from project participants and require commitments of public funds from permittees and other plan partners.
        ii. May not be necessary from a regulatory perspective in order to obtain incidental take authorization for a covered species, depending on the amount of incidental take authorization sought.

2. ALL ANTICIPATED IMPACTS: Minimize and mitigate to the **maximum extent practicable** at a level sufficient to allow authorization for **all anticipated impacts** to a covered species in the Plan Area over the permit duration. (Might be similar to the recovery goal option, depending on the results of the land development projections.)
    a. Pros:
        i. Would result in a high degree of conservation for the species.
        ii. Committing to mitigate for all anticipated impacts, regardless of the type of activity or plan participation rate, could allow a high level of take authorization on par with the full set of anticipated cumulative impacts to the species across the Plan Area over the duration of the permit.
        iii. Would alleviate concerns from Camp Bullis regarding endangered species pressures on training missions.
        iv. Achieves the level of conservation required by regulations to compensate for the level of authorized impacts.
    b. Cons:
        i. Likely to be extremely expensive and funding needs would likely far outpace the collection of mitigation fees from project participants and require commitments of public funds from permittees and other plan partners.

3. PARTICIPATING PROJECTS: Minimize and mitigate to the **maximum extent practicable** at a level sufficient to allow take authorization **only for projects voluntarily participating** in the Plan over the permit duration.
    a. Pros:
        i. Achieves level of conservation required by regulations to compensate for authorized impacts and does not obligate permittees to provide more mitigation than is necessary.

ii. Does not prohibit permittees from voluntarily implementing additional conservation measures beyond those needed to achieve regulatory compliance.

iii. The conservation commitment is scalable with the actual demand for plan participation.

iv. Expected revenue from participation fees would be more in line with anticipated expenditures for the conservation program.

b. Cons:

i. Commits to achieving only the minimum level of conservation needed to allow for permit issuance.

ii. USFWS could require higher mitigation ratios for impacts since the overall conservation benefits could be lower than for other options.

iii. Could still require some commitment of public funds or resources to adequately implement the program.

EXAMPLES FROM OTHER TEXAS RHCPS

See attached pages from:

- Draft Comal County RHCP (pages 4-2 through 4-3; final draft plan dated April 2010)
- Draft Hays County RHCP (pages 61-62; final draft plan dated September 28, 2009)
- Final Williamson County RHCP (pages 5-1 through 5-3; final plan dated August 15, 2008)
- BCCP HCP/EIS (March 1996) – biological goals not explicitly stated

4.1.1 Biological Goals and Objectives of the RHCP

The HCP Handbook 2000 Addendum defines biological goals as the broad, guiding principles that clarify the purpose and direction of the conservation components of an HCP (65 FR 35241). The biological goals and objectives are designed to address the anticipated impacts of the proposed activities while taking into account the overall conservation needs of the listed species and their habitat. Conservation measures identified in an HCP, including minimization and mitigation strategies, provide the means for achieving these biological goals and objectives.

4.1.1.1 Biological Goals

The biological goals of this RHCP are to:

- Contribute to and facilitate the conservation of the federally listed endangered golden-cheeked warbler and black-capped vireo (the Covered Species).
- Help conserve the Evaluation Species. The Evaluation Species include the Cagle's map turtle, one cave-obligate decapod, two cave-obligate amphipods, a cave-obligate beetle, a cave-obligate harvestman, two cave-obligate spiders, and one snail (the nymph trumpet) (see Chapter 1, Section 1.1.1.1 for scientific names).

4.1.1.2 Biological Objectives and Conservation Measures

In general, the biological goals will be accomplished 1) by minimizing disturbance to Covered Species and their habitat in Comal County, and 2) by mitigating the impacts of take contemplated by this RHCP by preserving and managing certain known endangered and rare species habitat areas. In addition to these general objectives, the biological goals of the Comal County RHCP will be met by accomplishing the following objectives and conservation measures:

- Minimize disturbance during the nesting season through temporal and spatial restrictions on clearing activities.
- For the golden-cheeked warbler, establish a system of permanent preserves within the County that will serve as mitigation for impacts covered by the RHCP or purchase sufficient mitigation credits from Service-approved conservation banks, the service area of which includes Comal County. The amount of preserve land or mitigation credits needed to mitigate for the requested take is estimated to total 6,548 acres (2,650 hectares) by the end of the 30-year Permit period (see Section 4.3.1.3 for an explanation of the mitigation acreage). The actual preserve acreage will be a function of several unknown factors, including the amount of take eventually authorized through the RHCP (it may be less than the amount requested, depending on participation), the mitigation ratios to be determined on a project-by-project basis, and future opportunities for land acquisition.
- For the black-capped vireo, the County will provide mitigation for any impacts it authorizes in one of the following ways:
- Acquisition of credits from a Service-approved conservation bank for the black-capped vireo, the service area of which includes Comal County, or, in the event the service area

does not include Comal County, if the Service has specifically approved the sale of credits to Comal County.

- Acquisition (in fee title or conservation easement) and operation, management, and monitoring in perpetuity of habitat for the black-capped vireo, including as a component of a preserve also providing habitat for the golden-cheeked warbler.
- Acknowledgment of black-capped vireo conservation bank credits owned by a potential participant, used for the purposes of providing mitigation in exchange for participation in the RHCP, and managed in perpetuity for the benefit of the black-capped vireo.
- In all events, no impacts to the black-capped vireo will be authorized through the RHCP unless and until sufficient black-capped vireo conservation credits have been obtained in one or more of the foregoing manners.
- Manage and monitor in perpetuity all preserved habitat areas in an effort to maintain or enhance habitat quality.
- Provide annual funding of at least $10,000[18] beginning in Year 3, totaling $429,309 over the life of the RHCP, for a program of prioritized research on listed and rare species in the County.
- Provide annual funding of at least $5,000[19] beginning in Year 3,[20] totaling $214,655 over the life of the RHCP, for a public education/outreach conservation program. This program will be designed to increase public understanding and appreciation of the need to protect the Covered and Evaluation Species and minimize impacts to their habitat.
- Develop and maintain a database on the Covered and Evaluation Species locations and general population numbers within the County and preserve habitat quality indices collected during monitoring efforts. To the fullest extent allowed by State law, the County will attempt to maintain the confidentiality of the database, but allow access as approved by the Service.
- Periodically evaluate the degree to which the RHCP, as it is being implemented, is providing conservation benefits to the Evaluation Species, and, if data indicate that a species is in need of increased management or its status indicates a potentially threatened or endangered existence, identify what additional measures, if any, the County could implement through the RHCP to provide conservation benefits for the species.

4.2 RHCP PROGRAM ADMINISTRATION

Many elements of the RHCP will require consistent administrative procedures and assurances that the program will be sufficiently funded and staffed to implement all aspects of the commitments detailed in this document. Program implementation includes not just a 30-year

[18] Research and public awareness expenditures are calculated to increase annually at a rate of 3.0 percent.

[19] See preceding footnote.

[20] The funding plan provides funding for public education/outreach conservation program beginning in Year 3, after the RHCP is expected to generate income sufficient for that purpose.

6.0 CONSERVATION PROGRAM

The RHCP conservation program is designed to meet the specific regulatory requirements of the ESA with regard to the species covered for incidental take by the Permit (i.e., the golden-cheeked warbler and black-capped vireo). The ESA requires that the conservation program of a habitat conservation plan include measures to minimize and mitigate impacts to the covered species to the maximum extent practicable. The amount of incidental take sought by the Permit would allow impacts to a maximum of 9,000 acres of potential warbler habitat and 1,300 acres of potential vireo habitat in Hays County.

The conservation program described below includes a number of actions that Hays County commits to implement that minimize and mitigate the anticipated impacts of the incidental take that will be permitted through the RHCP to the maximum extent practicable. The stated commitment to implement these conservation actions is not intended to and does not restrict the County's ability to engage in additional conservation actions at its discretion, should additional resources become available.

6.1 Goals and Objectives

6.1.1 Community Goals and Objectives

The RHCP may contribute to a number of local community goals, such as: 1) provide a locally-developed method for ESA compliance; 2) maintain open space and quality of life in Hays County; and 3) encourage partnerships with private landowners and local organizations as conservation partners.

The RHCP may simplify compliance with the ESA. It may streamline ESA compliance and reduce uncertainty, time, and costs for the County and other RHCP participants.

The RHCP may compliment the County's initiatives to protect open space and aquifer recharge areas. The RHCP may also compliment County efforts to establish parks and provide water access for county residents.

6.1.2 Biological Goals and Objectives

The biological goals and objectives of the RHCP are to:

1. Create a preserve system within Hays County that effectively mitigates for incidental take of the golden-cheeked warbler and black-capped vireo and coordinates and consolidates mitigation requirements from projects scattered across the county into larger, more biologically significant preserve blocks.

Objectives to accomplish this goal include the establishment of a preserve system that includes between 10,000 and 15,000 acres (which is expected to be sufficient to generate enough mitigation credits to balance the anticipated level of participation in the RHCP).

2. Design the preserve system to provide perpetual conservation value to the golden-cheeked warbler and black-capped vireo.

To help meet this goal, preserve blocks (which may be composed of multiple adjacent parcels) will meet certain design criteria. Preserve blocks will typically contain a minimum of 500 contiguous acres.

3. Encourage compliance with the ESA by providing an efficient means of authorization.

By implementing the RHCP and providing an efficient and reliable mechanism for ESA compliance, the County is hopeful that there will be an increase in ESA compliance across Hays County. Increased compliance with the ESA has long-term benefits for the covered species.

4. Provide for perpetual management and monitoring of preserve lands to maintain, enhance, or create quality habitat for the golden-cheeked warbler and black-capped vireo.

Management of the preserves will include documenting habitat conditions, establishing sound preserve boundaries, limiting (and possibly prohibiting) access to protected habitats, and reducing threats. Required monitoring activities will measure key habitat and population parameters and the results will be used to inform adaptive management decisions.

5. Where possible, maximize the value of the preserve system for multiple rare species in Hays County.

Hays County will consider the conservation benefits to the evaluation and additional species when evaluating potential preserve acquisitions. The County will evaluate acquired preserve lands for the presence of evaluation or additional species to create an inventory of conserved resources within the RHCP preserve system, when resources allow. The County may implement appropriate management practices within the preserve system when these practices are compatible with the management of habitat for the warbler and vireo, and when it is practicable to do so. The RHCP identifies research priorities for evaluation species, and the County will support research projects (as applicable and practicable) to fill knowledge gaps that could assist with the creation or implementation of more focused conservation measures for one or more of these species.

6.2 Avoidance and Minimization Measures

Hays County encourages public and private entities whose activities may impact the covered species in Hays County to avoid and minimize impacts to the species included in the RHCP, including the evaluation and additional species. As described in the sections below, the

CHAPTER 5 – AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

The following sections describe the steps that will be taken to avoid, minimize, and mitigate impacts of the Williamson County RHCP to the four covered species (two invertebrates and two songbirds). These steps may also benefit the additional species.

5.1 GOALS AND OBJECTIVES OF THE WILLIAMSON COUNTY RHCP

The RHCP and proposed section 10(a)(1)(B) permit are designed to achieve the following general goals:

- *Reduced burden on individual permit applicants*: The RHCP will reduce time, costs, and logistical burden for individual permit applicants.
- *Responsible economic activities*: The RHCP will facilitate the coordinated and beneficial use of land within Williamson County to promote the local economy of the region.
- *Maintenance of open space and quality of life in Williamson County*: The RHCP will help to ensure that some of the natural character of the County is maintained despite extensive anticipated development.
- *Conservation of natural resources*: The RHCP will promote the long-term conservation and recovery of the covered species.
- *Efficient and effective administration of the Endangered Species Act*: The RHCP will reduce the administrative and logistical burden on the Service of processing individual Endangered Species Act permits and monitoring post-issuance performance of multiple individual permit projects within the County.

The RHCP is designed to meet these goals through a variety of mechanisms and programs, the core features of which include:

- Meeting the biological goals and objectives described below and applying the associated conservation measures.
- Prescribing the conditions necessary for Williamson County to secure Service authorization for take of covered species during land use and development projects.
- Establishing the standards and procedures for extending the RHCP permit take authorization to land use projects undertaken within the County by other non-Federal entities.

5.1.1 Biological Goals and Objectives of the RHCP

The HCP Handbook 2000 Addendum defines biological goals as the broad, guiding principles that clarify the purpose and direction of the conservation components of an HCP (65 FR 35241). The biological goals and objectives are designed to address the anticipated impacts of the proposed activities while taking into account the overall conservation needs of the listed species

and their habitat. Conservation measures identified in an HCP, including minimization and mitigation strategies, provide the means for achieving these biological goals and objectives.

5.1.1.1 Biological Goals

The biological goals of this RHCP are to:

- Support recovery efforts for the endangered Bone Cave harvestman, Coffin Cave mold beetle, golden-cheeked warbler, and black-capped vireo.
- Help conserve the 20 additional karst species[53] and four additional salamander species listed in Chapter 1, Section 1.1.1, thereby assisting the Service in precluding the need to list those that are not currently listed (all but the Tooth Cave ground beetle).

5.1.1.2 Biological Objectives

In general, the biological goals will be accomplished 1) by minimizing disturbance to endangered and rare species and their habitat occurring in Williamson County, and 2) by mitigating the impacts of take contemplated by this RHCP by preserving and managing certain known endangered and rare species habitat areas. For the covered bird species, due to the paucity of high quality habitat within Williamson County, the RHCP will need to focus mitigation efforts outside of the County, although mitigation opportunities will be actively pursue within the County as well (see Sections 5.4 and 5.5, below). In addition to these general objectives, the biological goals of the Williamson County RHCP will be met by accomplishing the following measurable objectives:

- Ensure Recovery Plan conservation goals for the Bone Cave harvestman and Coffin Cave mold beetle in Williamson County are reached as quickly as possible. The published recovery (downlisting) criteria (USFWS 1994) include the following:
    - Three KFAs within each KFR[54] in each species' range should be protected in perpetuity.
    - If fewer than three KFAs exist for a species, that species would still be considered for downlisting if it occurred in two KFAs and those were adequately protected.
- Provide long-term management (*in perpetuity*) of the KFAs required for covered species recovery.
- For additional karst invertebrate species, acquire and manage KFAs that are rich in invertebrate species diversity.
- For golden-cheeked warbler, contribute to the amount of high quality habitat (at least 1,000 acres [405 hectares] within the first four years of the plan) preserved in perpetuity in Recovery Region 5.

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[53] One of the 20 additional karst invertebrate species, the Tooth Cave ground beetle, is already listed.

[54] With the exception of Cedar Park KFR, which contains the Bone Cave harvestman but is already largely developed and has little potential for additional take and little or no potential for establishment of additional protected KFAs.

- For black-capped vireo, restore and enhance protected vireo habitat either within or outside Williamson County commensurate with vireo habitat taken under the plan.
- For the Georgetown salamander (a candidate species not covered by the proposed Permit), increase knowledge of the species' status, distribution, and conservation needs through research in Years 2–6 of the plan.
- Increase the knowledge and understanding of covered and additional species via research and monitoring throughout the 30 years of the plan.
- Increase public understanding and appreciation of the need to protect the covered and additional species via public education throughout the 30 years of the plan.

5.1.1.3 Conservation Measures for Attaining Biological Objectives

The strategy for attaining the above biological objectives consists of the following conservation measures. Each of these measures is described in detail later in this chapter.

For the covered species:

- For karst species, to discourage impact on species-occupied caves within 50 feet of the cave footprint and to provide sufficient funds to contribute to the purchase of KFAs, levy a high participation fee ($400,000/cave) for impacts within 50 feet of the cave footprint.
- To mitigate for incidental take of the Bone Cave harvestman and Coffin Cave mold beetle, purchase or acquire management control[55] of approximately 700 acres (283 hectares) of KFAs, establishing three KFAs for each species in the KFRs where the two species occur: North Williamson County KFR, Georgetown KFR, and McNeil/Round Rock KFR for the Bone Cave harvestman, and North Williamson County KFR and Georgetown KFR for the Coffin Cave mold beetle.[56]
- Develop and carry out long-term management/monitoring plans for 10 of the 22 existing karst conservation areas (see Table 3-1 and Figure 3-2), the 700 acres in new KFAs, and up to 240 acres of protected karst habitat as identified above.
- For the golden-cheeked warbler and the black-capped vireo, preserve habitat by helping plan participants avoid and minimize impacts to habitat.
- For the golden-cheeked warbler and the black-capped vireo, minimize disturbance during the nesting season through temporal and spatial restrictions on clearing activities.

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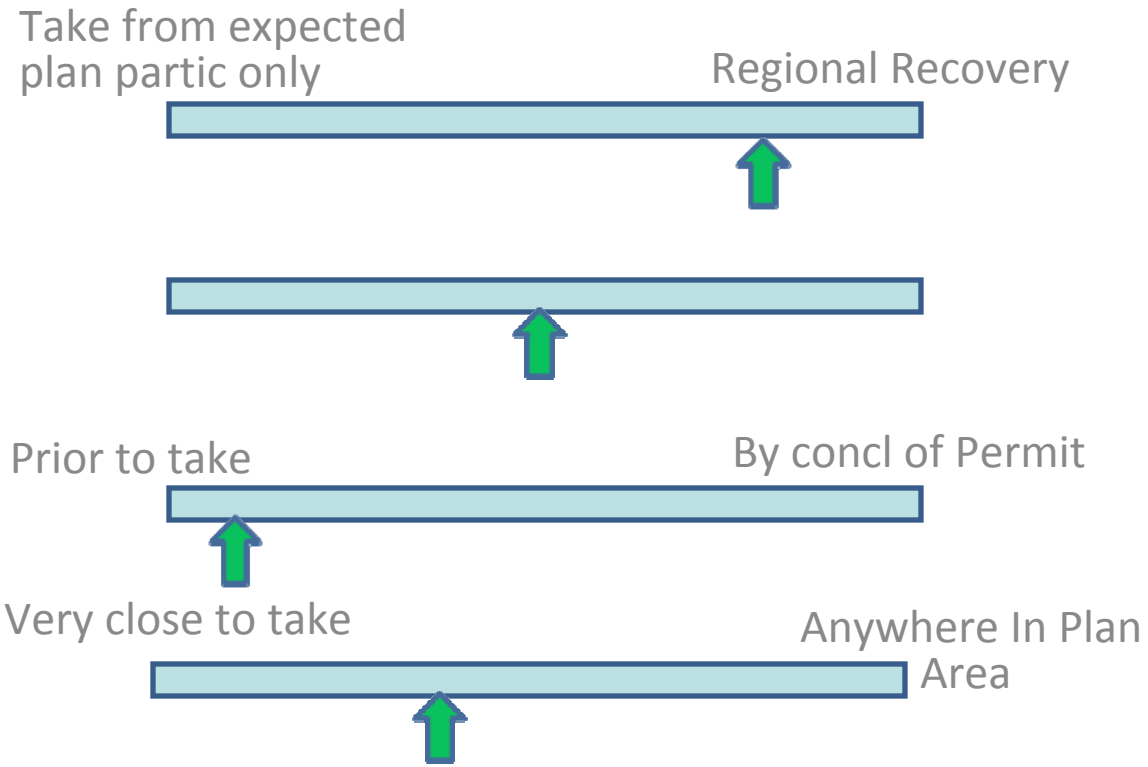
[55] A service-approved KFA may be established for an existing conservation area that meets all KFA criteria except adequate management, if the Foundation provides the needed management, beginning with the preparation of a karst management and monitoring plan.

[56] No take or mitigation is planned for the fourth KFR in the County, Cedar Park, because that KFR is already built out to the extent that insufficient undeveloped land with occupied caves is available for a KFA. No KFAs are planned for the Tooth Cave ground beetle because, in Williamson County, this species is known only from the Cedar Park KFR, which cannot support a new KFA. Little additional development on undisturbed land will occur in Cedar Park, so no additional take of the Tooth Cave ground beetle in the County is expected in any case.

Poll for BAT opinion on Biological Goals



Conservation Goal

Planned internal reviews CL5
(Stop gaps)

Bird preserve acquisition CL6

Bird preserve Location CL7

Slide 1

CL5 Will be addressed in monitoring and reporting plan.

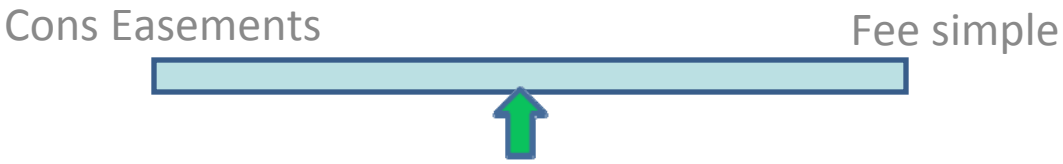
Will want more frequently early in plan.

In conjunction with appropriate staus reviews (e.g. GCW)
Clif Ladd, 7/7/2010

CL6 There are fewer limitations to conservation of bird preserves (than karst).
Clif Ladd, 7/7/2010

CL7 As close as possible and as large as possible, but consider connecting habitat.
Clif Ladd, 7/7/2010

Poll for BAT opinion on Biological Goals



Preserve Type CL9

Preserve Configuration CL8

Specifically include federal partners (Bullis, FHWA)

CL

Slide 2

CL1 Same KFR preferred
Confrimed location for same species
Clif Ladd, 7/7/2010

CL8 Mulltiple large blocks (5-10 thousand acres)

Connecting currently *protected* areas

Adjacency, configuration
Clif Ladd, 7/7/2010

CL9 Both are valid tools for achieving protection.
Clif Ladd, 7/7/2010

Mitigation ratio

Karst preserve Location Distance to take

Karst preserve design (size) CL3

Karst preserve acquisition CL2

Slide 3

CL2 Protect particularly choice preserves first.

Phased approach may be necessary to maintain target mitigation ratio.
Clif Ladd, 7/7/2010

CL3 No arrow, no scale, but consider Quality dependent factors:

Surface drainage
Subsurface drainage
Cricket foraging area
Species richness
And other factors in recovery plan
Clif Ladd, 7/7/2010

DRAFT PROPOSAL
BIOLOGICAL GOALS AND OBJECTIVES FOR THE SEP-HCP

Biological goals are the broad, guiding principles for the operating conservation program of the SEP-HCP. They are the biological rationale behind the mitigation strategies described in the Plan.

Biological objectives are the different components needed to achieve the biological goals, such as preserving sufficient habitat, managing the habitat to meet certain criteria, or ensuring the persistence of a specific minimum number of individuals.

Biological Goals:

1. Minimize and mitigate impacts to the covered species to the maximum extent practicable at a level that:
    a. is sufficient to obtain incidental take authorization for the covered species for those projects voluntarily participating in the Plan; and
    b. contributes substantially to the recovery of the covered species.
2. Contribute to the conservation of the other species addressed in the Plan in order to help prevent or minimize possible future declines in the status of these species.

Biological Objectives:

1. Golden-cheeked Warbler
    a. Mitigate for the impacts of participating projects at a ratio of 1 acre of permanently protected GCW habitat for each acre of habitat directly impacted and 0.5 acre of permanently protected GCW habitat for each acre of habitat indirectly impacted.
    b. Over the duration of the permit, permanently protect and manage approximately xxx acres of GCW habitat within the Plan Area as mitigation for the impacts of participating projects in parcels or clusters of adjacent parcels that are no smaller than 500 acres.
    c. Prioritize the creation of a preserve system with multiple “focal” conservation areas for the GCW that each contain several thousand acres of contiguous or nearly contiguous GCW habitat and are distributed across the Plan Area.
    d. Create a new focal area of permanently protected GCW habitat near Camp Bullis and the rapidly urbanizing portions of the Plan Area, with an emphasis on creating new habitat or restoring degraded or low quality habitat, to contribute to recovery of the species beyond the mitigation required to compensate for authorized incidental take.
    e. Prioritize the acquisition of preserve parcels that expand upon or help connect existing conserved lands and parks within the Plan Area.
    f. Manage GCW habitat within preserves to minimize threats and to maintain, restore, or enhance high quality habitat for the GCW.
    g. Regularly monitor GCW populations and habitats to track the status of the species within the preserve system and inform the adaptive management process.

2. Black-capped Vireo
    a. Mitigate for the impacts of participating projects at a ratio of 1 acre of permanently protected BCV habitat for each acre of habitat directly impacted and 0.5 acre of permanently protected BCV habitat for each acre of habitat indirectly impacted.
    b. Over the duration of the permit, permanently protect and manage approximately xxx acres of BCV habitat in the Plan Area as mitigation for the impacts of

participating projects with individual patches of habitat that are no smaller than 100 acres.

c. Prioritize the protection and management of BCV habitat as buffers around patches of habitat for other covered species within preserve parcels.
d. Actively manage BCV habitat within preserves to maintain a shifting mosaic of BCV habitat in various successional stages, such that a proportion of the area managed for BCVs within a particular preserve area is continuously in a high quality state, and to minimize threats to the species and its habitat within the preserve system.
e. Regularly monitor BCV populations and habitats to track the status of the species within the preserve system and inform the adaptive management process.

3. Category 1 and 2 Karst Invertebrates
    a. Ensure that at least 6 high or medium quality KFAs that are occupied by a Category 1 or 2 karst invertebrate are protected before incidental take of that species is allowed through the Plan.
    b. Protect xxx additional high or medium quality KFAs over the duration of the permit that are occupied by one or more of the "allowable" Category 1 or 2 karst invertebrates to mitigate for the direct and indirect impacts of participating projects on these species.
    c. Prioritize the creation of KFAs that contribute to the recovery strategy identified for the Category 1 or 2 karst invertebrates.
    d. Prioritize the creation of KFAs within preserves that also contain habitat for the other covered species.
    e. Manage protected KFAs to minimize threats and to maintain or restore high quality karst habitat.

4. Category 3 Voluntarily Conserved Species
    a. Prioritize the acquisition of preserves that are occupied by or contain habitat for one or more of the Category 3 species.
    b. Identify and monitor populations of Category 3 species within the preserve system and manage these populations to eliminate or minimize threats, to the extent practicable given higher priority management needs for the covered species and available resources.
    c. Assist the USFWS with the development of appropriate conservation strategies for non-listed Category 3 species, to the extent practicable given available resources.
    d. Contribute to the overall body of knowledge for Category 3 species by assisting the USFWS with identifying data gaps and other research needs or by conducting targeted research or monitoring studies for one or more of these species, to the extent practicable given available resources.

5. Category 4 Incidentally Conserved Species
    a. Identify and monitor populations of Category 4 species within the preserve system and manage these populations to eliminate or minimize threats, to the extent practicable given higher priority management needs for the covered species and available resources.

GENERAL CONSERVATION TOOLS AND APPROACHES

Types of Conservation Actions

- **Avoidance** –avoiding take of a listed species negates the need for ESA compliance for that species or, if complete avoidance of take is not possible, reduces the amount of mitigation needed to compensate for adverse impacts
- **Minimization** – actions that reduce the amount of take associated with a project or that reduce the magnitude of adverse impact to the species; minimization actions reduce the amount of mitigation needed to compensate for adverse impacts
- **Mitigation** – actions that compensate for the adverse impacts of take; mitigation actions for an HCP typically involve the protection, enhancement, restoration, or creation of habitat for the affected species

Definition of "take" – To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. (*per Section 3 of the ESA*)

Definition of "harass" – An intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt the normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. (*per 50 CFR 17.3*)

Definition of "harm" – An act which actually kills or injures wildlife. Such act may include significant habitat modification of degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. (*per 50 CFR 17.3*)

Work with BAT to identify appropriate avoidance and minimization measures for each of the covered species.

(The Lost Pines Habitat Conservation Plan in Bastrop County relies almost entirely on avoidance and minimization measures for its conservation program.)

Habitat Preserve Acquisition Tools

There are many tools available to conserve open space. See attached publication by the National Park Service that describes several conservation tools for protecting open space in Texas (the publication is also available through the Texas Land Trust Council at www.texaslandtrustcouncil.org). Conservation tools that may be most applicable to the SEP-HCP are summarized below.

- **Fee Simple Ownership** – the property is owned by the plan partners; land can either be purchased or accepted as a donation or in lieu of other forms of mitigation (i.e., land accepted in lieu of mitigation fees)
    - Fee simple ownership gives the greatest degree of control over the use and management of the property.
    - Fee simple land purchases may be more expensive than other types of acquisitions.
    - Publically owned preserve lands may be subject to strong pressures for public access; trespassing can be a substantial management issue.
- **Conservation Easements** - A conservation easement is a voluntary legal agreement between a landowner and conservation organization that places restrictions on specified future land uses; the easement is either voluntarily donated or sold by the landowner; the land remains in private hands
    - See the attached Texas Land Trust Council booklet on conservation easements (also available at www.texaslandtrustcouncil.org)
    - Easement purchases may be less expensive than fee simple purchases

    - Management responsibilities may be shared between the easement holder and the property owner
    - Ongoing coordination with the property owner is essential to maintain the integrity of the easement
- **Conservation Banks** – Conservation banks are lands protected for the purpose of creating "conservation credits" that can be used by or sold to other parties to compensate for adverse impacts on other properties. Conservation bankers voluntarily enter into binding agreements with the USFWS to protect and manage habitat in perpetuity. In return, the conservation value of the protected lands are translated into conservation credits that can be used to compensate for impacts to similar habitats in other areas.
    - See the attached USFWS guidance on conservation banking (also available at www.fws.gov/endangered/pdfs/MemosLetters/conservation-banking.pdf)
    - SEP-HCP could purchase conservation credits from independent conservation banks within the Plan Area (if consistent with the Service Area of the bank) or establish its own conservation bank and sell credits to plan participants
    - If purchasing credits from an independent conservation bank, the SEP-HCP would not be responsible for ongoing management or monitoring costs for lands within the independent bank. These responsibilities are taken care of by the conservation banker.

Once preserve land is acquired, adaptive management is needed to achieve conservation objectives and can include actions intended to:

- maintain the existing condition of protected habitats;
- enhance or restore the conservation value of lower quality or degraded habitats; or
- create new habitats on protected lands.

The management plan for preserves will also consider how to address other types of preserve uses (such as recreational use or grazing), infrastructure corridors, and addressing various threats to species and habitats.

General Approaches to Preserve Acquisitions

The conceptual strategy for preserve acquisitions may include considerations of preserve design and acquisition schedule. See attached table comparing these conceptual alternatives. SEP-HCP could include elements of both approaches.

- **Upfront Pre-determined Preserve System –** Plan would define a "target area" for preserve acquisitions within which the applicant would agree to acquire or otherwise protect a certain amount of habitat with certain characteristics for the species covered by the plan and set it aside permanently as preserve land. Plan would authorize incidental take (up to a certain limit) for projects outside of the target acquisition area.
    - Examples: Balcones Canyonlands Conservation Plan in Travis County; San Diego Multispecies Conservation Plans in California
- **Phased Conservation Bank** – Plan would be structured as a conservation bank through which the plan would preserve, via a series of transactions over time, parcels containing habitat for the covered species. The protected habitats would create conservation credits for the covered species that could be "banked" for future sale to voluntary plan participants (or used by the applicants themselves). The applicants would coordinate with the USFWS to determine the appropriate method for establishing the number of credits that would be associated with each parcel protected through the bank. With every potential plan participant, the applicants would have to ensure that sufficient credits were available in the bank before they could allow a particular project to mitigate for impacts through the plan.
    - Examples: Williamson County, Comal County, and Hays County regional HCPs

DRAFT July 22, 2010

COMPARISON OF POSSIBLE PRESERVE ACQUISITION APPROACHES FOR THE SEP-HCP

Approach	Schedule	Costs/Financing	Conservation Benefits	Potential Drawbacks	Opportunities for Creative Transactions
Upfront Pre-determined Preserve System	If preserves are identified upfront in the plan, the preserve system must be acquired within four years after the permit is issued or within six years after initial application for the permit is made, whichever is later. (Required by Texas Parks and Wildlife Code, Chapter 83.)	Due to state law, this approach can represent a very large, early financial commitment. However, potential inflation of land prices is reduced due to the short timeframe required for acquisitions. The plan must demonstrate that there are adequate sources of funding to acquire the land for preserves within four years, or that the voters have authorized bonds or other financing in an amount equal to the estimated cost of acquiring the land needed for habitat preserves within four years.	The preserve system is designed as part of the initial plan, so it would be based on a comprehensive scientific assessment of the most important habitat areas, given projected growth patterns. Subject to funding and landowner cooperation, the likelihood of aquiring key preserve parcels is higher (i.e., they might be less likely to be lost to future land development).	Less flexibility over time to react to new data. Would require large, early financial commitment. Identifying specific parcels for acquisition in the plan could raise the selling price of needed lands. Landowners could object to their lands being targeted for acquisition in the preserve system. No guarantee that they would be willing partners.	While this approach certainly allows use of creative transactions, the pool of potential landowner partners is limited by the initial preserve design, and the effectiveness of the preserve system can be limited if key landowners in the preserve acquisition area are not willing sellers or seek unreasonable economic terms.
Phased Conservation Bank	Schedule of bank transactions can be very flexible and matched with the demand for participation over time. Under a phased approach, potential preserve tracts must be acquired within four years after the tract is identified for preservation. However, identification of possible preserve parcels could occur as needed throughout the life of the permit. State law deadlines for acquisitions would not be tied to permit application or issuance.	This approach generally allows costs to be scaled to the actual demand for credits. There is no upfront commitment to financing acquisitions beyond a given transaction. As credits are sold, a portion of the proceeds would be placed back into the conservation banking fund to pay for future acquisitions, thereby creating a long-term funding for habitat protection. State law provides that offers to purchase individual tracts for preserve must be made four years after the tract is identified as habitat preserve.	Many of the same conservation benefits as a pre-determined preserve system. But allows more flexibility to adjust preserve design based on new data over time.	Higher likelihood that important parcels may become unavailable (i.e., developed) prior to preservation. Preserve acquisitions at any given time would be limited by the available opportunties (i.e., willing landowner partners).	This approach maximizes opportunities for creative, cost-effective transactions, because efforts will be directed towards those habitat owners most eager to work with the applicants.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

ADDRESS ONLY THE DIRECTOR,
FISH AND WILDLIFE SERVICE

MAY 2 2003

Memorandum

To: Regional Directors, Regions 1-7
Manager, California Nevada Operations

From: Director

Subject: Guidance for the Establishment, Use, and Operation of Conservation Banks

This memorandum transmits guidance that will help Service personnel evaluate proposals to establish conservation banks (attached). This guidance provides a collaborative incentive-based approach to endangered species conservation, which if used in coordination with other tools available to the Service, can aid in the recovery of the species. Due to the beneficial aspects derived from this guidance we are establishing it effective immediately. As with any program, however, the Service will review and monitor use of this guidance for the establishment of conservation banks, and may choose to revise, update, and improve this guidance in the future. Consequently, when implementing this guidance, Service personnel should encourage discussion and obtain feedback from landowners, applicants, owners of conservation banks, or other members of the public.

This memorandum is intended to be applied to conservation bank proposals submitted for approval on or after the date of this guidance and to those in early stages of planning or development. It is not intended for the guidance to be retroactive for banks that have already received agency approval. While it is recognized that individual conservation banking proposals may vary, it is the intent of this guidance that the fundamental concepts be applicable to future conservation banks.

Attachment

Guidance for the Establishment, Use, and Operation of Conservation Banks

I. Introduction

A. Purpose and Scope of Guidance

This document provides guidance on the establishment, use, and operation of conservation banks for the purpose of providing a tool for mitigating adverse impacts to species listed as threatened or endangered under the Endangered Species Act of 1973, as amended. This guidance can also be used to aid in the establishment of banks for candidate species. The Service envisions that banks will mainly be used for candidates in conjunction with Candidate Conservation Agreements with Assurances or as a precursor to a multiple species Habitat Conservation Plan effort that covers listed and non-listed species.

The policies and procedures discussed herein are applicable to the establishment, use, and operation of public conservation banks, privately sponsored conservation banks, and third party banks (i.e., entrepreneurial banks). The guidance they provide is intended to help Service personnel; (1) evaluate the use of conservation banks to meet the conservation needs of listed species; (2) fulfill the purposes of the ESA; and (3) provide consistency and predictability in the establishment, use, and operation of conservation banks. In this regard, it is important to apply consistent standards and principles of mitigation whether mitigating through conservation banks or through other means. The purpose of this policy is not to set the bar higher for conservation banks than for other forms of mitigation, but articulate generally applicable mitigation standards and principles and to explain how they are to be accomplished in the special context of conservation banks.

Conservation banks are a flexible means of meeting a variety of conservation needs of listed species. The use of conservation banks should be evaluated in the context of unavoidable impacts of proposed projects to listed species. In some cases, the use of off-site banks may be the only mitigation option when on-site conservation measures are not practicable for a project or when the use of the bank is environmentally preferable to on-site measures. In general, no two conservation banks will be used or developed in an identical fashion. However, as demand for conservation banking increases, it is important that the essential components and operational criteria of conservation banks are standardized to ensure national consistency.

B. Background

Conservation banking is attractive to landowners and land managers because it allows conservation to be implemented within a market framework, where habitat for listed species is treated as a benefit rather than a liability. From the Service's perspective, conservation banking reduces the piecemeal approach to conservation efforts that can result from individual projects by establishing larger reserves and enhancing habitat connectivity. From a project applicant's perspective, it saves time and money by identifying pre-approved conservation areas, identifying "willing sellers," increasing flexibility in meeting their conservation needs, and simplifying the regulatory compliance process and associated paperwork. From the landowner's perspective, it provides a benefit an opportunity to generate income from what may have previously been considered a liability.

Directing smaller individual mitigation actions into a bank streamlines compliance for the individual permit applicants or project proponents while providing a higher benefit to the natural resources. Banking allows a collaboration of private/public partnerships to maintain lands as open space, providing for the

conservation of endangered species. Local communities as a whole benefit by being assured that their natural resources will be protected and open space maintained.

Conservation banking can bring together financial resources, planning, and scientific expertise not practicable for smaller conservation actions. By encouraging collaborative efforts, it becomes possible to take advantage of economies of scale (both financial and biological), funding sources, and management, scientific, and planning resources that are not typically available at the individual project level.

1. What Is a Conservation Bank?

A conservation bank is a parcel of land containing natural resource values that are conserved and managed in perpetuity, through a conservation easement held by an entity responsible for enforcing the terms of the easement, for specified listed species and used to offset impacts occurring elsewhere to the same resource values on non-bank lands. Bank parcels are typically large enough to accommodate the mitigation of multiple projects. A project proponent will secure a certain amount of natural resource values within the bank to offset the impacts to those same values offsite. The bank is specifically managed and protected by the banker or designee for the natural resource values. The values of the natural resources are translated into quantified "credits." Typically, the credit price will include funding for the long-term natural resource management and protection of those values. Project proponents are, therefore, able to complete their conservation needs through a one time purchase of credits from the conservation bank. This allows "one-stop-shopping" for the project proponent, providing conservation and management for listed species in one simplified transaction.

A bank can be created in a number of different ways: (1) acquisition of existing habitat; (2) protection of existing habitat through conservation easements; (3) restoration or enhancements of disturbed habitat; (4) creation of new habitat in some situations; and (5) prescriptive management of habitats for specified biological characteristics. Banks can be created in association with specific projects, or can proceed from a circumstance where a project proponent sets aside more area than is needed for the immediate project, or where the specific project and is willing to protect the remaining area and thus generate credits, or where the specific project is implemented over a longer period of time. A conservation bank can also be created as an entrepreneurial effort in anticipation of an independent customer base with a number of different potential projects.

Once conservation banks are established, conservation banks each credit they sell is considered to be part of the environmental baseline. As a result, future project evaluations and listing or delisting decisions can be made in a more stable ecological context. This stability is one of conservation banking's greatest assets, both from the an ecological and economic standpoint. For this reason, it is particularly important that conservation banks be established in perpetuity, regardless of the future status of the species for which the bank was initially established.

2. Wetland Mitigation Banking vs. Conservation Banking

The wetland mitigation banking policy was finalized in November of 1995*(60* FR *58605)*. The main concept behind wetland mitigation banking is similar to that of conservation banking; to provide compensation for adverse impacts to wetlands and other aquatic resources in advance of the impact. Under the guidelines established for section 10 of the Rivers and Harbors Act and section 404 of the Clean Water Act, impacts to wetlands are mitigated sequentially by avoiding impacts, minimizing impacts, and then, as a last resort, compensating for those impacts. Compensatory mitigation involves creating, restoring, or enhancing lost function and values of the wetlands. In the absence of mitigation

banking, this often led to small, isolated wetlands being restored without long-term value. Wetland mitigation banking was used to consolidate smaller mitigation requirements for wetland impacts. Typically, the mitigation bank policy focused on establishing credits based on the restored or enhanced value of the area, and discouraged the establishment of "preservation" banks. This makes sense when the functions of wetlands on the landscape are considered in the context of a no net loss policy.

Conservation banking transferred the concept of wetland mitigation banking into endangered and threatened species conservation with a few slight differences. While in wetland mitigation banking the goal is to replace the exact function and values of the specific wetland habitats that will be adversely affected by a proposed project, in conservation banking the goal is to offset adverse impacts to a species. These different goals account for differences in the policies guiding operations of the two banks. In contrast to mitigation banks, an appropriate function of conservation banks is the preservation of existing habitat with long-term conservation value to mitigate loss of other isolated and fragmented habitat that has no long-term value to the species. It forces the Service to evaluate all issues surrounding banking in the context of the benefit to the species a sharply contrasting standard to that of wetland banking, where the focus of mitigation is on maintaining function and values present in a particular watershed.

Endangered species conservation banking has been implemented in California since 1995, where the Service has worked with the State of California Department of Fish and Game (CDFG). The CDFG policy on conservation banking describes conservation banks as:

> A conservation bank is privately or publicly owned land managed for its natural resource values. For example, in order to satisfy the legal requirement for mitigation of environmental impacts from a development, a landowner can buy credits from a conservation bank, or in the case of wetlands, a mitigation bank. Conservation banking legally links the owner of the bank and resource agencies, such as the Department of Fish and Game or the U.S. Fish and Wildlife Service.

II. Policy Considerations

The Services intent is that this guidance be applied to conservation bank proposals submitted for approval on or after the effective date of this guidance and to those in early stages of planning or development. We do not intend for the policy to be retroactive for banks that have already received agency approval. While we recognize that individual conservation banking proposals may vary, our intent for this guidance is that the fundamental concepts be applicable to future conservation banks.

Conservation banking can assist both the section 7 and section 10 processes in reaching their goals. Many activities authorized under these processes result in adverse effects to listed species, including habitat loss or modification. One way to offset these types of impacts is to include in the project design a plan that involves the restoration and/or protection of similar habitat on- and/or off-site. Purchasing credits in conservation banks is one method of protecting habitat off-site or on-site.

A. Authorities

1. Section 7

Section 7(a)(1) of the ESA requires that all Federal agencies ...in consultation with and with the assistance of the [Service], utilize their authorities in furtherance of the purposes of [the ESA] by carrying out programs for the conservation of [listed species]. Section 7(a)(2) of the ESA also requires each Federal agency to consult with the Service regarding effects of their actions to insure that the continued existence

of listed species will not be jeopardized and that designated critical habitat will not be destroyed or adversely modified. Impacts to listed species are minimized by including conservation measures for the listed species in the Federal agency's project description. These conservation measures could include, if appropriate, protection of off-site listed species habitat through purchase of credits in a conservation bank.

2. Section 10

Section 10(a)(1)(B) of the ESA authorizes the Service to issue to non-Federal entities a permit for the incidental take of endangered and threatened species. This permit allows a non-Federal landowner to proceed with an activity that is legal in all other respects, but that results in the incidental taking of a listed species. A habitat conservation plan, or HCP, must accompany an application for an incidental take permit. The purpose of the HCP is to ensure that the effects of the permitted action on covered species are adequately minimized and mitigated and that the action does not appreciably reduce the survival and recovery of the species. Mitigation may include off-site protection of the listed species and its habitat and may take the form of purchasing credits in an approved conservation bank. Credits must be acquired by the permittee prior to commencement of actions authorized by an incidental take permit and intended to be mitigated by those credits.

B. Planning Considerations

1. Goals and Objectives

The overall goal of any conservation bank should be to provide an economically effective process that provides options to landowners to offset the adverse effects of proposed projects to listed species. The goal of a bank should be focused on producing conservation benefits for the species for which the bank is being established. For instance, many species are facing the threat of habitat loss and fragmentation. By consolidating and managing the high-priority areas in a reserve network, the threat of fragmentation may be reduced and the species can be stabilized. The species recovery plan and conservation strategy can help provide are among the tools available to develop the goals and objectives for establishing conservation banks. The important point in establishing a bank is to site banks in appropriate areas that can reduce the threat of fragmentation and provide management measures that address other threats that a species might encounter, such as cowbird parasitism, non-native invasion, or disruption of natural disturbance regimes.

2. Conservation Strategy

Any conservation strategy that the Service develops should identify threats, conservation needs and actions that address those threats and needs in the service area. This information can then help the Service evaluate whether the banking concept, the geographic location, the size, and management for the species is appropriate. The recovery plan can help guide the Service in evaluating whether creation of a bank will contribute to the conservation needs of the species. However, in instances where the recovery plan is not specific, is not available or is outdated, the Service may consider options to assess bank effectiveness. One option is to develop a local step down approach or strategy to addressing the needs of the species.

The conservation strategy or species conservation needs should address the factors which caused the species to be listed and must be based on sound scientific principles. The main threat to a majority of the listed species is habitat loss and fragmentation of the remaining habitat. To reduce this threat,

conservation biology principles have often been used to conserve populations of species in a reserve network, consisting of core populations that are interconnected by dispersal corridors. Conservation banking can aid in such a strategy by adding conservation areas that are permanently managed to the reserve network.

3. Principles of Conservation Bank Evaluation

Both section 7 and section 10 require the evaluation of a project's adverse effects to a species and determine whether proposed project, together with any offsetting measures, will jeopardize the continued existence of the species. The adverse effects and offsetting measures are evaluated in the context of the current status of the species and the threats to the species. Implicit in the approval of a conservation bank, is the recognition that adverse effects to a species may be offset by the conservation improvements offered by the bank. The Service is agreeing that projects which include adequate mitigation of impacts through the purchase of bank credits are consistent with the conservation needs of the species covered by the bank.

For the Service to determine whether to approve a proposed bank, the Service should determine whether the bank will provide adequate mitigation for the species. When the Service evaluates a proposed mitigation package that is intended to offset adverse effects to listed species, the Service evaluates whether the mitigation will fit within the conservation needs of the species.

For instance, if a proposed project involved habitat loss, the offsetting measure may be to conserve habitat in a location that contributes to the overall conservation strategy of the species, which may be located in a corridor or core area that supports essential breeding habitat. The conservation bank will provide mitigation to offset impacts and therefore should be evaluated in the same fashion. The best way to justify approving a bank is to evaluate whether the bank fits into the overall conservation needs of the listed species the bank intends to cover.

Two issues of paramount importance in evaluating any conservation bank are the siting of the bank and its management program. Although recovery plans for individual species will rarely, if ever, identify particular parcels as desirable sites for conservation banks or other conservation actions, they often identify broader areas within which recovery efforts will be focused. Conservation banks sited in these areas can create mitigation opportunities that both increase the options available to regulated interests and contribute to the conservation of the species. For species without recovery plans, or with plans that do not clearly identify those areas where recovery efforts will be primarily focused, conferral with the Service is especially important, to identify those areas it regards as of particular value in conserving the species.

For many species, individual conservation banks are seldom large enough, by themselves, to support a viable population of a threatened or endangered species over the long term. But if the bank is located next to an existing area managed for the conservation of that species, even a small conservation bank may increase the likelihood that a viable population can be maintained there. Similarly, if a bank is sited to encourage dispersal between two areas managed for the conservation of the species, the bank may increase the likelihood of the species surviving at both locations and thus provide a benefit proportionally larger than its actual area. In some instances, banks may be able to provide replacement habitat for species currently occupying nearby unmanaged habitats at risk of becoming unsuitable because of succession. Sites that otherwise appear to be good locations for conservation banks may turn out, on closer examination, to be inappropriate because of anticipated land-use changes in the surrounding area. These and other considerations relevant to the siting of a conservation bank should be taken into account at the outset and discussed with the would-be banker's to ensure that needs for species conservation is compatible with the banker's objectives.

No less important than siting is the bank's management program. Seldom will the needs of a threatened or endangered species be met on a completely unmanaged piece of property. More commonly, an active management program--to control invasive exotic species, replicate natural disturbance regimes; prevent an area's use by off-road vehicles, illegal garbage dumpers or others; and address myriad other threats--is essential to ensure that the potential conservation value of a particular property is realized and maintained. These management needs should be anticipated and provided.

4. Eligible Lands

Conservation banks may be established on Tribal, local, private, or State lands where managing agencies maintain or will maintain habitat in the future. Use of conservation banks on Federal lands is not precluded under this guidance, although there may be special considerations concerning applicability of conservation banks on Federal lands. Therefore, future guidance will be forthcoming on this point. Until such time, use of conservation banks on Federal lands would occur only on a case-by-case basis after review and approval by the Director.

Land used to establish conservation banks must not be previously designated for conservation purposes (e.g., parks, green spaces, municipal watershed lands), unless the proposed designation as a bank would add additional conservation benefit. For instance, it may be advantageous to place in a conservation bank the biological and habitat benefits that a species has gained under a Safe Harbor Agreement, where the landowner would agree to maintain those resource values in perpetuity.

Where conservation values have already been permanently protected or restored under other Federal, State, Tribal, or local programs benefitting federally listed species, the Service will not recommend, support, or advocate the use of such lands as conservation banks for mitigating impacts to species listed under the ESA. This includes programs that compensate landowners who permanently protect or restore habitat for federally listed species on private agricultural lands, as well as easement areas associated with inventory and debt restructure properties, lands protected or restored for conservation purposes under fee title transfers, lands protected by a habitat management agreement (unless the agreement is extended in perpetuity by a bank agreement), or habitats protected by similar programs. For example, lands conserved under the section 6 habitat conservation plan land acquisition grant program would not be available for conservation bank establishment. Where Federal funds have been used in the establishment of a bank, the allocation of credits to the bank will be proportionate to the non-Federal contribution. A bank capable of sustaining 10 credits, but with a 50 percent Federal contribution, will be allocated 5 credits.

5. Site Selection

The Service will give careful consideration to the ecological suitability of a site for achieving mitigation. The Service will evaluate the location, size, and configuration of the proposed bank. Additional items to consider when determining the suitability of an area as a conservation bank might be topographic features, habitat quality, compatibility of existing and future land use activities surrounding the bank, and species use of the area.

Conservation biology principles suggest that conserving large, unfragmented habitat blocks, to reduce the edge effect, in a reserve network will help to maintain viable populations. A conservation bank could be large enough to maintain a viable population within its boundaries or be situated in a strategic location that would add to an already established conserved area. The conserved area might be a privately owned

mitigation site established under an habitat conservation plan, or a State park . Banks could also be sited between two larger areas in a corridor that will maintain connectivity for dispersing individuals.

Bank boundaries should ordinarily be drawn so as to exclude developed areas or other areas that cannot reasonably be restored. Potential banks that encompass such areas should only be approved if the activities that will occur on these areas will not impact the value of the bank for conservation or if the resulting value will be sufficient to warrant conservation in spite of the developed areas. However, if the latter is the case, we must have the assurance that the impacts will not change over time in a manner that will decrease the value of the bank. Factors to consider include, but are not limited to, activities that may result in incidental take, habitat degradation, and contamination.

It is also possible to establish conservation banks within the boundaries of a proposed project, such as an HCP planning area, if it is both feasible and appropriate given the habitat type and species needs. If the project plan area contains sufficient land and the project impacts are fairly localized, it may be possible, or even desirable, to designate a conservation bank within its boundaries. Ultimately, the credits purchased from a conservation bank must provide biologically comparable habitat to the area affected by the activity to be mitigated.

6. Inclusion of Buffer Area

In general, it is important that banks be of sufficient size to ensure the maintenance of ecological integrity in perpetuity. However, the minimum or maximum sizes of parcels of land designated as a conservation bank will be determined on a case-by-case basis depending on the needs of the species proposed to be covered in the bank, the location of the bank, and the habitat values that are provided. Bank boundaries must encompass all areas that are necessary to maintain the habitat function specific to the species covered by the bank, which may include the appropriate buffer against edge effects from adjacent land use.

These buffer areas may not always consist of habitat that is necessary for the species included in the bank. However, limited credits may be given for the inclusion of these buffer areas only to the degree that such features increase the overall ecological functioning of the bank.

7. Role of Restoration, Enhancement, and Creation of Habitat

Conservation banks will rely on a range of strategies to achieve and maintain mitigation in perpetuity on existing functioning and occupied habitat for a majority of those species facing threats of habitat loss and fragmentation. Such strategies include preservation, management, restoration of degraded habitat, connecting of separated habitats, buffering of already protected areas, creation of habitat, and other appropriate actions. The preservation strategy will be employed for those species in which the habitat is not easily restored or created, or the information on how to accomplish the restoration or creation of habitat is either not known or unreliable. Other species may rely heavily on creation or restoration of habitat as part of a conservation bank. The reliance on restoration, enhancement, or creation of habitat as part of a bank strategy will be species specific. All conservation banks will must have an element of management that will maintain the habitat for the species in the bank.
Conservation banks can be used in instances where significant restoration, enhancement, or creation of habitat are necessary. However, an appropriate credit system will need to must be developed to address these situations. If restoration is proposed as part of the conservation bank, appropriate measures should be implemented to increase the likelihood of success. One way to increase the likelihood of success is to

require some method of ensuring performance, such as authorizing sale of credits only upon completion and verification of restoration outcomes.

One strategy is to designate preservation credits for the protection of existing habitat and restoration credits for the restoration, enhancement, and preservation of areas not currently providing suitable habitat. The need for this type of distinction will vary depending on the specific ecological situation and the conservation strategy being employed. For example, we may determine that a species cannot afford any reduction of its total available habitat. For this reason, we may require the development of a process that provides for one acre to be protected and one acre to be restored for every acre of habitat destroyed. Taken to its full extent, this conservation strategy would result in half of the existing habitat being protected with the remaining habitat being replaced through habitat restoration.

C. Criteria for Use of a Conservation Bank

1. Project Applicability

Activities regulated under section 7 or section 10 of the ESA may be eligible to use a conservation bank, if the adverse impacts to the species from the particular project are offset by buying credits created and sold by the bank. Credits from a conservation bank may also be used to compensate for environmental impacts authorized under other programs (e.g., State or local regulatory programs, transportation projects, NEPA or State equivalent). In no case may the same credits be used to compensate for more than one activity; however, the same credits may be used to compensate for an activity that requires authorization under more than one program. In other words, once a credit is sold to offset an adverse impact, that same credit cannot be sold again.

2. Service Area

In general, the Service Area of a conservation bank is identified in the bank agreement and defines the area (e.g., recovery unit, watershed, county) in which the bank's credits may be used to offset project impacts. In other words, if proposed projects fall within a specific conservation bank's Service Area, then the proponents of those projects may offset their impacts, with the Services approval, by purchasing the appropriate number of conservation credits from that bank. In the event that the proposed projects fall within the Service Area of more than one conservation bank, then the project proponents would have the option of using any of the banks or perhaps even more that one bank.

Designation of the Service Area should be based on the conservation needs of the species being conserved. For this reason, banks generally should be located within areas designated in recovery plans as recovery units or other applicable recovery focal area, and their Service Areas should correspond to the recovery areas in which they are located. If there is no applicable recovery plan, banks should be sited, and Service Areas should be designated, to serve a comparable purpose.

Two exceptions to the preceding general guidance should be noted. First, some projects may be located outside a recovery unit. Banks located within recovery units should be able to provide credits for such projects. In such situations, the project to be mitigated will have little or no detrimental impact on recovery prospects, and the mitigation bank will aid those prospects.

A second exception to the general guidance regarding Service Areas concerns projects located in recovery units and undertaken *after* the recovery objectives for those areas have been achieved. Such projects should be able to buy mitigation credits from banks located in other recovery units. Allowing such

projects to do so will help achieve the recovery objectives in the recovery unit where the bank is located, without hurting these objectives in the area of the project requiring mitigation.

The Service Area is an important component for the bank owner who will need to evaluate the marketability of their banks, i.e., the potential demand for their conservation credits. The individual bank owner has the responsibility to determine if a bank will be profitable. The bank agreement should clearly define any constraints that are found within the Service Area. These might include exclusion of areas that are key to a regional reserve system, such as projects that occur within corridors or core reserve areas. Or, a particular bank in a county could have a Service Area corresponding to the regional plan boundary, yet limit projects using the bank to those that are in fragmented, isolated, highly urbanized areas not contributing to the regional reserve system.

3. Credit System

Credits are the quantification of a species' or habitat's conservation values within a bank. The conservation values secured by a bank are converted into a fixed number of credits that may be bought, sold, or traded for the purposes of offsetting the impacts of private, State, local, or Federal activities. In its simplest form, one credit will equal one acre of habitat or the area supporting one nest site or family group. Credit values are based upon a number of biological criteria and may vary by habitat types or management activities. When determining credit values, some of the biological criterion that may be considered include habitat quality, habitat quantity, species covered, conservation benefits, including contribution to regional conservation efforts, property location and configuration, and available or prospective resource values.

In general, the credit system for a conservation bank should must be expressed and measured in the same manner as the impacts of the development projects that will utilize the bank. For instance, if a development project will permanently remove some amount of habitat acreage and a number of pairs of a species, then the bank's credits should be expressed in terms of acreage and pairs. If effects are evaluated in terms of losses of family groups due to timber activities, then the bank credits should be established in terms of the number of family groups being conserved. The method of calculating bank credits should be the same as calculating match project impact debits.

In some instances a bank may contain habitat that is suitable for multiple listed species. When this occurs, it is important to establish how the credits will be divided. For instance, once a project buys a credit for one species, that credit cannot be sold again for another species. If the proposed project impacts multiple species and the bank contains the same multiple species, then the credits can be sold for in-kind replacement. As a general rule, overlapping multiple species credits can overlap for a single project, but not multiple projects.

If the bank is a preservation bank, the credits should be based on the biological values of the bank at the time the bank agreement is established. Because some populations may vary in size due to natural dynamics, an agreement should be made, before the bank agreement is finalized, as to the number of credits in the bank, especially if the credits are based on the number of individuals or nesting pairs. This is a risk both for the Service and the banker. The risk to the Service is that the credit overestimates the average populations of the bank. The risk for the banker is that the agreement could be made in a low population year, depressing the amount of credits that the bank could have received. A study might be undertaken to determine the average populations occupying the bank, but this would be time consuming and expensive for the banker and the Service.

An alternative would be to use incentives to arrive at a fair accounting for both the banker and the Service. An initial allocation of credits could be made to the bank based on the best available information on species average population sizes. This number would be set on the low end of the spectrum. Additional credits would then be awarded to the banker based on subsequent performance. When mutually agreed-upon mitigation outcomes or conservation milestones are reached the standards that must be met in order to earn credits above the initial allocation the Service would authorize the additional credits.

At the time that the first credit in a bank or phase of a bank is sold, the land within the bank or its phase must be permanently protected through fee title or a conservation easement, with any land use restrictions set in perpetuity for the land legally established. Consequently, once any credit in a given bank or phase is sold, the entire area is automatically and legally protected, regardless if the rest of the credits in the bank or phase are sold, thereby eliminating future fragmentation of habitat.

Every conservation banking agreement should specify the methods for determining credits within the bank and debits outside the bank, setting performance standards to calculate credit availability, and devising accounting procedures to track the creation and use of such credits. If several conservation banks are created for the same species, the Service will use a consistent methodology for determining credits in each of them and make that methodology publicly available. That methodology should also be consistent with the methodology used to determine mitigation requirements for activities mitigated by means other than the purchase of credits from conservation banks.

Credits associated with a mitigation activity (as well as debits associated with an activity requiring mitigation) should reflect an assessment of the degree of beneficial (or detrimental) impact of the activity on the prospects for the affected species' survival. In theory, population viability analyses could be used to quantify the degree of impact on survival prospects. In practice, however, the information needed for rigorous population viability analyses is often unavailable. As a result, the units of currency may take the form of surrogates for the extent of impact on population viability, such as occupied acres or nesting pairs beneficially or detrimentally affected. In determining credits or debits, the same types of activities may be weighted differently depending on where they occur (e.g., nearby or far from existing protected areas), or other factors (e.g., quality of habitat at the affected site). The rationale for any differential weighting schemes should be clearly articulated in the mitigation agreement or elsewhere.

4. Phased Establishment

Conservation banks may be divided into sub-areas and implemented in phases. This approach is useful and appropriate in many circumstances. A prospective bank manager may not be sure there will be sufficient demand to use all of the potential credits. Therefore, the banker may decide to implement a conservation bank on only a portion of the habitat area during the first phase of the bank. Later phases of the bank would be added if and when the credits from this first phase are exhausted. Other situations justifying a phased approach include those in which a potential banker can only afford to enhance or manage a portion of the entire habitat area until revenue from the first phase is received, or when a potential project proponent is uncertain about the level of impact he or she will be creating over time and thus is uncertain how many conservation credits will be required.

Alternatively, the Service may want to seek the implementation of a bank in a phased manner. For example, in a situation where there is uncertainty regarding the level of future biological need within a specific area, it may be desirable to implement a process in which high-quality habitat receives priority designation for protection, and lands of lesser quality habitat or lands targeted for ecological restoration or enhancement activities would be designated for secondary phase protection. This would increase the likelihood of protecting habitat of the greatest ecological value, with habitat of lesser ecological value

being protected only if needed.

A non-phased approach with a similar outcome would be to use weighted credits. Preservation of an acre of high-quality habitat might earn one credit, while preservation of an acre of low-quality habitat might earn half a credit. This would eliminate the need to prioritize land types for mitigation purposes. So long as the credit and debit methodology ensures that adverse impacts are fully compensated by corresponding beneficial actions of banks, it will not matter whether the first phase of a bank is high-quality or low-quality habitat. As a general rule, if the differences in habitat quality are sufficient to justify prioritization, then they are also sufficient to justify weighted credit valuations.

If a phased approach is to be taken, each phase must be evaluated on the assumption that its conservation value can stand on its own in the event that the additional phases are not added to the conservation bank in the future. For instance, if the species conservation strategy identifies the need for conservation areas to be established with a minimum size of 200-acres for the species population to be viable and the first phase of the bank is proposed for only 100-acres, then the Service may not want to approve the proposed phasing structure.

5. Relationship of the Bank to the mitigation requirements

The most important consideration for any mitigation requirements - irrespective of variation between species and site specificity - is that they should be proportionate to be proportional to the extent of the impact and consistent from project to project. Mitigation requirements for individual projects may or may not be compatible with use of conservation banks. For example, the most appropriate mitigation for a particular project may involve emphasizing on-site preservation or restoration due to important local functions such as habitat protection for a species with a limited geographic range. There may be circumstances warranting a combination of on-site and off-site conservation measures, and, in these circumstances, conservation banks could be a useful tool. Conservation banks will only be available for use by projects that affect a species covered by the bank. In general, a bank established to provide credits for one group of species cannot be used to offset impacts to a species not part of the group, unless the Service establishes that the bank can provide the necessary conservation values to additional species, and implements the legal instruments to effect the change. The Service will approve the use of the conservation bank and establish the number and type of credits to offset impacts from a particular project.

In many situations, mitigation ratios are used to establish the amount of credits that will need to be purchased. While use of ratios may be based initially on a general knowledge of the relationship between the amount of habitat remaining and what should be conserved to achieve the site-specific conservation strategy, every adverse impact will need to be evaluated individually. In some circumstances, the ratios can be based on qualitative factors such as scale of impact or quality of habitat. This allows different ratios to be applied to ensure mitigation proportionate to the impact. For example, a project involving loss of habitat that is small in magnitude and low in quality due to isolation might be expected to mitigate at a ratio of 1:2 (one bank acre to two project acres), while a project with a large area in high quality habitat might be expected to mitigate at a ration of 2:1 (two bank acres to one project acre). Any mitigation ratio used, regardless whether the ratio is greater than, less than, or equal to 1:1 , must be based on sound biological rationale that is easily explained, readily understood, and consistently applied by the Service.

6. Coordination with Other Levels of Government

Conservation banks covered by this policy are those established to meet the requirements of the ESA. State or local laws may also impose requirements that can be met by the measures provided for in a conservation bank. When that is the case, the Service requires that the relevant state or local government

entity be given an opportunity to participate in the development of a conservation banking agreement and to become a party to it. The Service will coordinate its requirements with those of State or local government entities to the extent possible in order to minimize expenses, burdens, or duplicative requirements for bank sponsors, project proponents, and other govemmental agencies. Although the Service will encourage the appropriate State and local governmental agencies to participate in the development of conservation banking agreements and to become parties to them, the failure of such other agencies to participate in developing, or to sign an agreement that otherwise meets the requirements of this policy and of the ESA, shall not preclude the Service from entering into such an agreement. Any State and local agencies that participate in the bank agreement should be part of the Conservation Bank Review Team (CBRT) established to monitor the establishment, use, and operation of the conservation bank

7. Public Review and Comment

The bank credits will be sold in conjunction with incidental take of listed species exempted under section 7 or authorized under section 10 of the ESA. Both of these processes have opportunities for public review. Section 7 consultations are conducted when Federal agencies propose projects that have adverse effects to listed species. The Federal action agencies are required to consider reasonable alternatives and analyze those impacts through the National Environmental Policy Act, which includes public review of the project including mitigating factors. Through the section 10 process, all applications for permits authorizing the taking of listed species must be noticed by the Service for at least a 30-day public comment period. The use of credits from an established bank to mitigate actions in a HCP will require a permit application, notice, and opportunity for public comment.

If approving the bank agreement is controversial, the Service may want to publish in the Federal Register advance notice of its intent to do so and invite public comment on the proposed agreement. If there are significant public concerns about the design or operation of a conservation bank, it is better to discover them before approving a banking agreement than afterward.

D. Long-Term Management and Monitoring

1. Management

Incorporating management into the bank agreement is key to the bank's success. With few exceptions, listed species and their habitat cannot be conserved without management of the conservation property. An active management program may consist of halting and removing illegal trash dumping, preventing trespassing that might include off-road vehicle use, and/or imitating the natural disturbance regimes that might include prescribed burns. The ultimate goal for any management plan will consist of maintaining the habitat for the continued use by the listed species conserved on site.

The amount of credits earned by a bank and available for sale to Service Area projects for mitigation are *implicitly* contingent on the banks exercise of appropriate management to safeguard in perpetuity the species or habitat conservation values upon which the credits are based. This may require a range of management practices and responses, including those customarily identified as adaptive management practices. The choice of management strategies and the responsibility for engaging them to meet bank goals reside with the bank sponsor. As a general rule, species or habitat conservation value outcomes (e.g., numbers of nesting pairs and family groups, or enhanced or created habitat) not the implementation actions that are causal to those outcomes and values are the standards by which the Service will evaluate banks and authorize issuance and sale of mitigation credits. In cases of phased development, banks that perform and produce good results earn more credits, and banks that perform poorly and produce inferior

results earn fewer credits. Such an outcome-based management framework provides a robust, market-driven incentive for bankers to engage appropriate management practices and to take all necessary action to safeguard the conservation values that constitute the banks permanent capital. While conducting management activities on the bank, the bank owner should be cautious not to degrade the status of other sensitive species.

Management of conservation banking areas can also include other non-mitigation related activities which involve public access. If sound professional judgment is exercised in determining the compatibility of a particular use in a particular bank area, there is no reason to exclude the public from these areas. Exercise of common-sense consideration of the biological constraints, public safety, and conflicts between uses and compliance, can result in a property that satisfies the habitat requirements of the species protected, while providing enjoyment and education to the public. While each mitigation bank will have its own set of constraints, this guidance is intended to encourage public access where it is appropriate and does not impinge on the primary function of habitat preservation.

2. Monitoring

Monitoring is the responsibility of the conservation bank. The scope of the monitoring program should be commensurate with the scope of the conservation actions undertaken by the bank. Biological goals of the bank provide a framework for developing a monitoring program that measures progress toward meeting those goals. The appropriate protective measures and level of monitoring will vary by individual circumstance, and an effective monitoring program should be sufficiently flexible to allow modifications, if necessary, to obtain the appropriate information. Monitoring provisions to measure and assess habitat protection, restoration, or creation activities should be included in the conservation banking agreement. Those provisions will include components to: (1) evaluate compliance based on current levels of credit authorization; (2) determine if biological goals and objectives are being met; (3) provide feedback information for subsequent management changes and adaptations, including remedial actions if necessary; and (4) substantiate and authorize additional increases in bank credits resulting from habitat restoration or creation activities, including phase-in of additional bank lands.

The monitoring program will be conservation bank-specific and will be based on sound science. The monitoring methods and standards should be structured to compare the results from one reporting period to another period, or to compare different areas within the conservation bank. Monitoring should be conducted at time intervals appropriate to the banks management strategy. Monitored units should reflect the units of measurement associated with the biological goals (e.g., if a biological goal is in terms of numbers of individuals, the monitoring program should measure the number of individuals). Standard survey or other previously established monitoring protocols should be used. Though the monitoring for each ecosystem and each situation may differ, some factors that may be important to monitor include vegetative growth, the presence of invasive species (both plant and animal), water quality, and listed species presence. Although the specific methods used to gather necessary data may differ depending on the species and habitat types, monitoring programs should use a multi-species approach when appropriate. In summary, the monitoring measures must be clearly identified in the bank agreement and they should be commensurate with the conservation goals of the bank.

To determine the level of success and identify problems requiring remedial action, the bank sponsor is responsible for monitoring the conservation bank in accordance with monitoring provisions identified in the bank agreement, and approved by the Service. The parties to the agreement should establish a CBRT that oversees the establishment, use, and operation of the conservation bank. Monitoring reports should be submitted to the CBRT in accordance with the terms specified in the bank agreement.

3. Remedial Actions

Every conservation banking agreement must include provisions for a dispute resolution process applicable if the owners of the conservation bank fail to meet their obligations under the conservation banking agreement. The dispute resolution process must also provide a method for disposal of the property to a third party capable of continuing the management of the property for species protection in the event of the current owners inability to continue the operation of the bank for any reason. If necessary, a bond equal to the present value of the management costs may be posted or some other mutually agreed to form of surety may be used to ensure performance. The Agreement must contain provisions for contingencies that a prudent man would plan for, however, not every single possible contingency need be addressed. The bank should not be held responsible for offsetting acts of nature that are unforeseen, or foreseeable but unpredictable, such as earthquakes, floods, or fires.

The conservation banking agreement will stipulate the general procedures for identifying, implementing, and funding remedial measures at a bank in the event of unexpected contingencies (fires, floods, etc.), particularly after credits have been sold by the bank. Contingencies that occur prior to the sale of credits may result in the temporary suspension of the recognition of those credits, pending full or partial remedial action. These remedial measures will be based on both information in the monitoring reports and the Services on-site inspections. The Service, in consultation with the bank sponsor, will decide on the need for remediation.

4. Funding Assurances

The bank agreement must identify and include a requirement for adequate funding to provide for the conservation bank's perpetual operation, management, monitoring, and documentation costs. Therefore, the amount of funding that will be necessary for the ongoing management program should be clearly articulated in the bank agreement. If the incentive/outcome based system is used, the funding to maintain the increased values on the site, on which an increase in credits is based, must also be assured.

The bank agreement should discuss the funding assurances for activities, including habitat management, taking place before, during, and after the sale of credits. A management plan should be prepared to help determine the appropriate amount of funding. The management plan should include the activities necessary to implement the biological goals and objectives. Funding for the start-up of the management program should be separate from the requisite endowment for ongoing actions. These initial costs may include up-front costs to the bank owner, including, but not limited to: purchase of the habitat, any enhancements or clean-up required, and property taxes. Additionally, there may be consultant or legal fees associated with developing and managing the conservation bank.

Since the management of the bank will be in perpetuity, a good strategy for long term funding is to establish a non-wasting management endowment (i.e., a fund that generates enough interest each year to cover the costs of the yearly management). This endowment could be established by including the cost of management into the price per credit. As credits are sold, an agreed-upon portion of the proceeds can be deposited into a non-wasting endowment fund or escrow. The size of the required endowment will depend on certain factors that could include the amount of habitat associated with each credit, the land management activities, the amount or degree of habitat restoration needed, the "risk" of such restoration failing over time, the rate of inflation, and the interest rate. For example, low interest rates and a significant active management of the bank lands will require a larger endowment. As a contingency, a time limit should be established for full funding of the non-wasting endowment. The bank owner may have to supplement the endowment at the end of the time limit, if all of the credits have not been sold.

It may also be possible for the conservation bank to support certain agreed upon revenue generating activities (e.g., bird watching, hiking, grazing, etc.), if these activities do not conflict with the conservation goals of the bank or the intent of the compensation for impacts (e.g., in certain ecological situations, grazing may be a needed management tool). Such monies may be held in escrow or other long-term money management accounts to insure they are available when needed.

E. Establishment of the Conservation Bank

A conservation bank agreement is a legal agreement between the conservation bank owner and a regulatory agency such as the Service or other participating State and/or Federal agency that identifies the conditions and criteria under which the bank will be established and operated. The agreement contains information on the exact legal location of the bank and its Service Area, how credits will be established and managed, and how the bank will be funded, managed, and protected in perpetuity. It will deal with issues such as allowable activities and access, and it will identify requirements such as environmental contaminants surveys and appropriate monitoring programs. The conservation bank agreement itself, once completed, should be signed by the Regional Director.

1. Management Plan

Conservation banking agreements must include a management plan identifying any habitat or other management activities that will be needed, the endowment necessary to carry out such management in perpetuity, activities allowed to occur on the lands, and monitoring and reporting requirements for management objectives. The bank manager is responsible for fulfilling the obligations of the final management plan. Therefore, it is important to accurately estimate budget needs up-front. If an increase in credits through management actions have been given the management plan should be updated to reflect the new management needs on the bank. The conservation bank management plan should at a minimum discuss the following issues:

1 Property description, including geographical setting, adjacent land uses, location relative to regional open space plans, geology, and cultural or historic features on-site.

2. Description of biological resources on-site, including vegetation map.

3. Identification of activities allowed and prohibited on the conservation banks land.

4. Identification of biological goals and objectives for the bank.

5. Management needs of the property, including control of public access, restoration or enhancement of habitats, monitoring of resources, maintenance of facilities, public uses, start-up funding necessary, budget needs and necessary endowment funds to sustain the budget, and yearly reporting requirements. Any special management requirements that are necessary to implement the biological goals and objectives of the bank should also be discussed in detail.

6. Any monitoring schedules and special management plan activities, including adaptive management practices.

7. Any decision trees or other structures for future management.

2. Agreement

The main components of a bank agreement are listed below. Because each conservation bank is unique, additional items not listed here may be requested for inclusion in the bank agreement by one or more of the parties as needed. When defining the terms of the bank agreement, keep in mind that both parties' implementation and involvement in the conservation bank will be governed by these terms, unless the conservation bank is further amended by agreement of both parties.

1. A general location map and legal description of the property, including GPS coordinates if possible.

2. Accurate map(s) of the bank property on a minimum scale of 7 minutes. U.S. Geological Survey quad map or finer scale, if available.

3. Name of the conservation bank.

4. Name of the person(s)/organization(s) to hold fee title to the conservation bank.

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5. Name of the person(s)/organization(s) who will have management responsibility for the conservation bank and for how long. This entity must have demonstrated experience in natural lands management.

6. Name of the person or entity who will hold a conservation easement on the property.

7. Preliminary title report indicating any easements or encumbrances on the property, including Native American hunting, fishing, and gathering rights. This information should be supplied early in the bank evaluation and development process to ensure that the conservation banks goals are compatible with other current or planned activities on the property.

8. An enumeration of the types of potential activities that may include public access and that are compatible with the property's primary function as habitat for species.

9. A description of the biological value of the bank, including habitats and species. This may include a vegetation map and biological resources inventory.

10. Number and kind of conservation credits within the bank. Final credit numbers and any constraints on types of credits to be sold will be determined by the Service in accordance with a methodology clearly set forth in the agreement.

11. An accounting system to track credits, funding, and other reporting requirements.

12. Description of the Service Area of the bank. The appropriate Service Area will be determined by the Service and with the bank owner/manager.

13. Description and delineation of each bank phase, if more than one phase is proposed. The description will include phase boundaries, the number of conservation credits associated with each phase, explanation for why the use of phases is preferred, and the agreed upon process for terminating the bank prior to the implementation of all phases.

14. Compliance with applicable State and Federal laws such as State endangered species acts.

15. Results of a Phase I hazardous materials survey for the property.

16. A review of mineral and water rights associated with the property.

17. Discussion of any prescriptive rights on the property (e.g., road access, etc.),

18. An agreement to accurately delineate in the field all boundaries of the bank property, including any bank phases, and construct any required fences before the first conservation credit is sold, fee title transferred, or conservation easement granted.

19. An agreement to remove any trash, structures, or other items on-site that would otherwise reduce the long-term biological value of the site before the first conservation credit is sold, unless otherwise agreed to.

20. Provisions for the Service to enter the property for inspections, quality control/assurances and other duties as needed.

21. Performance standards that must be achieved.

22. Contingency management, funding, and ownership plans in the event that the bank owner and/or manager fails to fulfill the obligations as listed under the bank agreement and management plans, including an applicable dispute resolution process to address these contingencies.

23. A management plan for the bank property.

III. Definitions

For the purposes of this guidance document the following terms are defined:

Bank Sponsor - any public or private entity responsible for establishing and, in most circumstances, operating a conservation bank.

Conservation Actions - the restoration, enhancement, or preservation of species habitat for the purpose of reducing adverse impacts to listed species populations.

Conservation Bank - a site where habitat and/or other ecosystem resources are conserved and managed in perpetuity for listed species expressly for the purpose of offsetting impacts occurring elsewhere to the same resource values.

Conservation bank review team - an interagency group of Federal, State, tribal and/or local regulatory and resource agency representatives that are signatory to a bank agreement and oversee the establishment, use, and operation of a conservation bank.

Conservation Easement - a recorded legal document established to conserve biological resources in perpetuity, and which requires certain habitat management obligations for the conservation bank lands.

Credit - a unit of measure representing the quantification of species or habitat conservation values within a conservation bank.

Endowment Fund - an investment fund maintained by a designated party approved by the Service as a non-wasting endowment to be used exclusively for the management of the conservation bank lands in accordance with the management plan and the conservation easement.

Debit - a unit of measure representing the adverse impact to a listed or sensitive species at an impact or project site.

Enhancement - activities conducted in existing species habitat, or other resources, that increase one or more ecosystem functions.

Fee title - a fee title estate is the least limited interest and the most complete and absolute ownership in land; it is of indefinite duration, freely transferable and inheritable.

Management Plan - means the plan prepared to manage the conservation bank to, at a minimum, maintain the listed species value on the bank. This includes on-the-ground management activities, funding, and monitoring and reporting requirements.

Non-wasting management endowment - an account that generates enough interest each year to cover the costs of the yearly management.

Off-site conservation - conservation actions occurring outside the boundaries of a project site.

On-site conservation - conservation actions occurring within the boundaries of a project site.

Preservation - the protection of existing ecologically important habitat or other ecosystem resources in perpetuity through the implementation of appropriate legal and physical mechanisms.

Restoration - reestablishment of ecologically important habitat and/or other ecosystem resource characteristics and function(s) at a site where they have ceased to exist, or exist in a substantially degraded state.

Service area - the geographic area (e.g., watershed, county) wherein a bank can reasonably be expected to provide appropriate conservation benefits for impacts to habitat and off-site impacts can be offset by purchase of credits in the bank. The geographic area for which a conservation banks credits may be applied to offset debits associated with development activities.