

## 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<sup>18</sup> 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<sup>19</sup> beginning in Year 3,<sup>20</sup> 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

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<sup>18</sup> Research and public awareness expenditures are calculated to increase annually at a rate of 3.0 percent.

<sup>19</sup> See preceding footnote.

<sup>20</sup> 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.

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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<sup>53</sup> 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<sup>54</sup> 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.

<sup>53</sup> One of the 20 additional karst invertebrate species, the Tooth Cave ground beetle, is already listed.

<sup>54</sup> 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<sup>55</sup> 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.<sup>56</sup>
- 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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<sup>55</sup> 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.

<sup>56</sup> 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.