

Black-capped Vireo Management Plan Outline

I. Introduction

- a. Title
- b. Purpose/Applicability
 - i. Description of biological resources on site
 - ii. Covered species
 - iii. Identification of allowed and prohibited activities
- c. Revision/Amendment Process
- d. Goal(s)
- e. Objectives
- f. Interim/short term monitoring/management plan (if applicable).

II. Monitoring

- a. Vegetation monitoring – once every 5 years for occupied habitat, and annually for habitat under management until occupied.
 - i. Composition – trees/shrubs (<10% juniper)
 - ii. Shrub canopy – 30 to 60% (or more) of total area
 - iii. Nesting cover (foliage at 2 to 4 ft. height level)
- b. Population monitoring – every other year, minimum 100-acre rotating plots per 500-acre habitat areas.
 - i. Abundance monitoring – for established target density of males/acre (determined by comparison to nearby, healthy populations)
 - ii. Nest monitoring – for brown-headed cowbird parasitism. Baseline rate determined in first year. Rate target 10% or less averaged over 6-year periods.
- c. Deer, exotic ungulate and feral hog monitoring – annual spotlight and/or mobile surveys following TPWD guidelines. Deer density of 15 acres or more per deer. Exotics and feral hogs should be eradicated. At a minimum, 1 exotic ungulate per 100 acres, and feral hog damage to occupied habitat is negligible.

- d. Tobusch fishhook cactus. In areas where this species is known to occur per FWS county list, surveys should be conducted on appropriate soil types. If found, population should be delineated for management purposes.
- e. Fire Ant monitoring – methods developed per site.
- f. Invasive species monitoring – plan developed and approved by FWS.
- g. Roads, trails, and fencing – methods developed per site.
- h. Recreation (if applicable)

III. Management

- a. Vegetation – BCVI Habitat
 - i. Objectives following Campbell (2003)
 - ii. Prescribed fire/mechanical manipulation
 - iii. Rotational treatment approx. 3-year rotation
 - iv. 75% of original occupied habitat maintained in nesting condition and occupied annually.
 - v. No maintenance from March 15 to Sept. 1
 - vi. Slash mulched in place or removed from habitat and burned prior to next breeding season.
- b. Brown-headed cowbird management.
 - i. If cattle present on property, trapping begins upon mitigation land establishment date. Otherwise, based on baseline monitoring rate.
 - ii. Trapping should be done across parcel with objective of keeping parasitism rate below 10% as averaged over 6 years.
 - iii. Trapping conducted from March through May following TPWD guidelines.
- c. White-tailed deer, exotics- develop management plan for property with the following goals:
 - i. White-tailed deer – hunting pressure to maintain density at 15 acres or more per deer.
 - ii. Exotic ungulates – goal of eradication (at best), or one per 100 acres within two years of mitigation land establishment.
 - iii. Feral hogs controlled year-round using traps and hunting. Goal of elimination in occupied habitat, or reduce abundance such that effects to habitat are negligible.

- d. Tobusch fishhook cactus. Any areas found to have Tobusch fishhook cactus will be delineated in the mitigation land management plan. Management within these areas would be modified to hand-cutting only during the non-flowering season and brush piles would be removed from the area. If prescribed fire is the preferred management tool the burn should be conducted in the non-flowering season. Hand trimming of vegetation in/around cactus populations may be needed to avoid a high temperature burn within Tobusch fishhook cactus areas.
- e. Fire Ants – methods for treatment developed per site.
- f. Cattle - It is generally preferred that any livestock be excluded from mitigation lands. However, in limited circumstances, cattle may be allowed provided it does not compromise the conservation values of the mitigation lands. If cattle grazing is proposed for the property, a grazing plan with a “light” rotational grazing regime should be reviewed and approved by the FWS.
- g. Invasive species management – plan developed and submitted to FWS for approval.
- h. Roads, trails and fencing – management developed per site.

IV. Adaptive Management.

The management plan should include an adaptive management section to identify areas of uncertainty, develop alternative strategies, integrate a monitoring program to evaluate effectiveness, and incorporate feedback loops that link implantation and monitoring to the decision-making process.

V. Reporting

In order to evaluate compliance with the terms of the agreements and associated management plan, the owner/manager of the mitigation lands will prepare an annual report to the Service by December 31st of that year.

- a. A statement of funds received and expended in the management of the mitigation lands during the previous year.
- b. A general description of the status of the biological resources on the mitigation lands.

- c. The results of any biological monitoring or studies conducted on the mitigation lands.
- d. A description of all management actions taken on the mitigation lands, including any prescribed grazing that may take place to manage vegetation, and any management actions not taken with an explanation of why such action was not taken.
- e. A description of any problems encountered in managing the bank/mitigation land.
- f. A description of management actions that Owner may undertake, according to the management plan, in the coming year and the related annual budget (the "Annual Budget").
- g. A summary of the bank/mitigation land and habitats included in the bank/mitigation land, including total acres of habitat protected and managed for the GCWA and BCVI.
- h. An inventory of any known threats or impacts to the target species or its habitat, the status of the threat or impact (i.e., cured, ongoing, or uncured), and a summary of actions taken to reduce such threats or impacts, as applicable.
- i. Recommended modifications to the management plan as determined by the adaptive management process.
- j. The annual monitoring report prepared by the easement holder, as available.

VI. Endowment Funding Analysis

- a. Short term or interim funding assurances until endowment is fully funded (no more than 4 years)
- b. Long term funding assurances- line item proposed costs for management and monitoring actions, for example Property Analysis Record *

VII. References

VIII. Maps, Tables and Figures

*Available from the Center for Natural Lands Management in California.