

**BALCONES CANYONLANDS PRESERVE
LAND MANAGEMENT PLAN**

TIER III

**CITY OF AUSTIN
COWFORK/COLDWATER TRACTS
(PARK WEST, LONG CANYON, COLDWATER)
NORTH LAKE AUSTIN MACROSITE**



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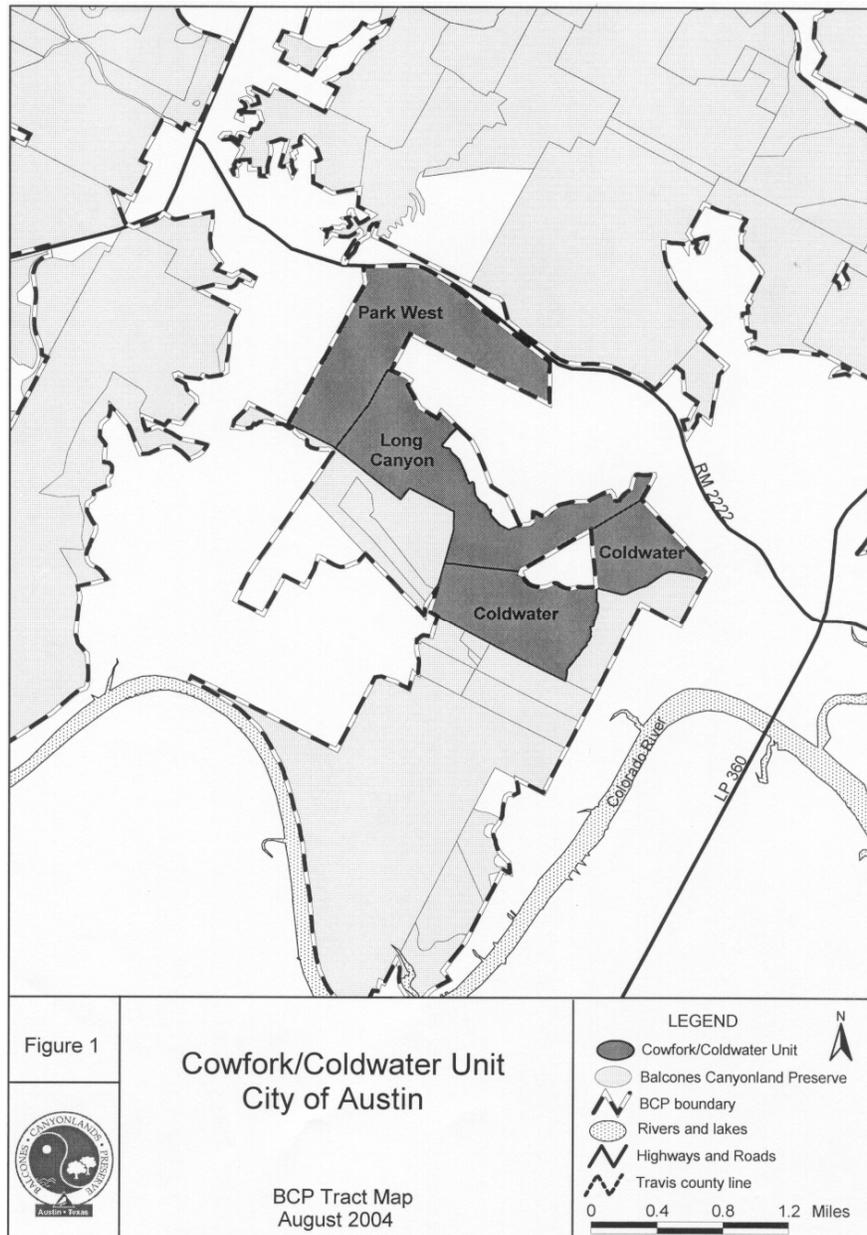
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1.0 BACKGROUND INFORMATION

All previous background information for the Cowfork/Coldwater Unit can be found in the first five-year set of three volumes entitled *Balcones Canyonlands Preserve Land Management Plans* (August 5, 1999). Any new information secured since this publication date will be included below.

Figure 1: Location Map



2.0 MANAGEMENT PROGRAM

2.1 Plan Administration

See Tier II-B Plan Administration for the description of City of Austin Water Utility as a managing entity, staffing levels, equipment inventory, budget and annual reports as they pertain to the City of Austin's management of the BCP.

2.2 Management Goal

2.2.1 Primary Management Goal

Maintain and improve the Coldwater, Long Canyon and Park West tracts for golden-cheeked warblers and karst invertebrates. Objectives and tasks to these ends are found in Section 2.4, Management Objectives.

2.2.1.1 Golden-cheeked Warbler

The City of Austin will manage for GCWA by limiting human disturbance, maintaining and improving 367.5 acres of habitat, and monitoring.

2.2.1.2 Black-capped Vireo

Not applicable.

2.2.1.3 Federally Listed Karst Species

Protect karst species by limiting disturbances and by monitoring annually.

2.2.1.4 Species of Concern

Protect species of concern by limiting disturbances and by monitoring annually.

2.2.2 Secondary Management Goals

Manage the land in its natural state for the purposes of watershed protection, including protecting and improving water quality and water supplies, reduction of erosion, and increasing water infiltration to reduce flooding, by using habitat-improvement techniques, such as re-vegetation and access control.

2.3 Issues

The location of this unit directly adjacent to a residential area will necessitate a close working relationship with the neighborhood association. Encourage participation by the residents in our efforts to manage the preserve and will actively seek their assistance through service outings and volunteerism.

2.4 Management Objectives

Tier II objectives for the North Lake Austin Macrosite include protection of endangered species and species of concern and their habitats by securing boundaries and managing

fire; management of public access, habitat, and water quality, monitoring, enhancement of habitat, and public education/outreach. In order to achieve the goals stated in Section 2.2, Management Goals, City of Austin land managers will undertake the following objectives and tasks.

1. Protect the preserve from direct human impacts.

- a. Limit public access to the preserve to staff-guided programs for environmental education, scientific research and service activities compatible with the goals of this plan.
- b. Secure the boundaries as needed with fencing and signs.
- c. Patrol the perimeter and interior of the unit routinely.
- d. Annually provide education to preserve neighbors about how to reduce their impacts on the preserve through educational programs and materials.
- e. Develop and implement guided public access for environmental education, scientific research and service activities compatible with the goals of this plan.
- f. Coordinate with adjacent landowners regarding mutual property line issues.
- g. Develop contact lists for adjacent and nearby property owners.

2. Protect and monitor Wooden Derrick, Rock Top, Canyon Head and Spider Caves.

- a. Limit land management activities over caves such that cave interiors are not disturbed or altered.
- b. Annually monitor surfaces around cave entrances for erosion activities and control as needed.
- c. Only use methods approved by the City of Austin Integrated Pest Control Committee and USFWS to control imported fire ant infestations near caves with endangered karst invertebrates or other species of concern.
- d. Continue limiting cave access to research and monitoring related to pollution and endangered species management.
- e. Monitor the interior ecosystem of caves at least once annually for physical and biological condition per protocol, and address any problems found.
- f. Continue to remove litter and hazardous materials from the caves as needed.

3. Monitor endangered species and species of concern per established protocols.

4. Obtain baseline vegetation data and monitor vegetation changes.

- a. Conduct annual photo-monitoring at selected locations.
- b. Continue baseline vegetation monitoring using modified Land Condition Trend Analysis methodology monitoring woody species at least every five years using the same methodology.

- c. Conduct under-story and ground cover surveys annually for species density and composition, using modified Land Condition-Trend Analysis methodology.
- d. Annually monitor populations of wildlife and plant species of concern to measure responses to land management techniques per BCP protocols.
- e. Map springs and major seeps each year and monitor per established protocols.

5. Control problematic conditions.

- a. Develop a fire control plan with the appropriate fire control district to determine when, where and how to suppress wildfires.
- b. Annually survey for and suppress oak wilt.
- c. Control brown-headed cowbirds and nuisance animals as needed.
- d. Survey annually for aggressive non-native plant species and remove as needed.

6. Manage various plant/wildlife communities appropriately.

- a. Using the most cost-effective and humane means available, limit the white-tailed deer population in order to control over-browse of vegetation, such that recruitment of *Quercus buckleyi* increases within five years.
- b. Manage GCWA habitat per BCP protocols.

These objectives and activities are grouped into four categories (vegetation, animal, physical and visitor-related) and assigned action dates in the following five-year timeline (Table 1):

Table One: Objectives

| Activities | 04 | 05 | 06 | 07 | 08 |
|---|----|----|----|----|----|
| <i>Vegetation Management</i> | | | | | |
| Control non-native plant species | X | X | X | X | X |
| Survey for and suppress oak wilt | X | X | X | X | X |
| Manage GCWA habitat | X | X | X | X | X |
| Monitor vegetation using established BCP protocols | X | X | X | X | X |
| Increase <i>Q. buckleyi</i> recruitment by controlling browse | X | X | X | X | X |
| <i>Animal Management</i> | | | | | |
| Control red imported fire ants annually as per BCP protocols | X | X | X | X | X |
| Monitor GCWA, and other species of concern per established BCP protocols. | X | X | X | X | X |
| Control cowbird parasitism and nuisance animals | X | X | X | X | X |

| Activities | 04 | 05 | 06 | 07 | 08 |
|---|----|----|----|----|----|
| <i>Physical and Cultural Management Procedures</i> | | | | | |
| Monitor water quality | X | X | X | X | X |
| Develop and implement fire control plan | X | X | X | X | X |
| Monitor caves on Park West as per BCP protocols | X | X | X | X | X |
| Limit cave access to authorized personnel for management purposes | X | X | X | X | X |
| <i>Visitor Management/Education</i> | | | | | |
| Secure and maintain boundaries with fences, signs and patrols | X | X | X | X | X |
| Develop and implement staff-guided educational, research and service activity protocols | X | X | X | X | X |

2.5 Specific Implementation Strategies

All implementation will follow applicable BCP guidelines and other accepted procedures in use by USFWS, Texas Parks and Wildlife Department, Texas Forest Service, Natural Resources Conservation Service, Structural Pest Control Board of Texas, City of Austin Drainage Utility Department, and the Austin Parks and Recreation Department. All pesticide applications are performed under the direction of a licensed non-commercial pesticide applicator.

Authorized staff may access the preserve by the most appropriate method, including by foot, motorized vehicle, or bicycle. Vehicles are restricted to existing roads unless specifically approved by the land manager. Springs and spring runs are restricted to foot access only.

3.0 MONITORING

The City of Austin will monitor and evaluate habitat management in accordance with applicable biological monitoring procedures as defined in Tier II-A Management Handbook. Evaluation and reporting procedures will comply with applicable portions of the Tier II-B Plan Administration.