# BALCONES CANYONLANDS CONSERVATION PLAN

## Annual Report
## FY 2006

### Background

On May 2, 1996, the City of Austin and Travis County were jointly issued an U.S. Fish and Wildlife Service (USFWS) regional permit referred to as the Balcones Canyonlands Conservation Plan (BCCP). This permit allows "incidental take" of eight locally occurring endangered species in compliance with Section 10(a)1(b) of the Endangered Species Act (U. S. Department of the Interior, Fish and Wildlife Service, 1996a). The thirty-year permit covers approximately 561,000 acres in western Travis County identified in the Habitat Conservation Plan and Final Environmental Impact Statement (HCP) (U. S. Department of the Interior, Fish and Wildlife Service, 1996b). The permit also covers incidental take of 27 species of concern should any become listed as threatened or endangered during the life of the permit (see Table 1).

### Permit Requirements

The City of Austin and Travis County (the Permit Holders) are required to assemble and manage 30,428 acres of suitable habitat for the golden-cheeked warbler and the black-capped vireo and to protect and manage populations of canyon mock orange and Texabama croton. The Permit Holders are also to acquire and manage or ensure protection through management agreements on 35 karst features supporting populations of six endangered invertebrates and 27 features known to harbor 25 species of concern. This system of managed and protected habitats is known as the Balcones Canyonlands Preserve (BCP). The locations of habitat areas and specific karst features proposed for protection are delineated in the HCP (U. S. Department of the Interior, Fish and Wildlife Service, 1996b).

Agencies or organizations entering into formal agreements with the Permit Holders to manage designated preserve lands in accordance with the BCCP are considered Managing Partners. At this time, the sole BCP Managing Partner is the Lower Colorado River Authority (LCRA), which manages 2,707 acres as a portion of the preserve system. As a Managing Partner, LCRA may mitigate for capital improvement and infrastructure development projects through the mitigation credit system established by the BCCP.

**Table 1.** Species covered by the BCCP.

| Common name | Scientific name | Status |
|---|---|---|
| Black-capped vireo | *Vireo atricapilla* | Endangered |
| Golden-cheeked warbler | *Dendroica chrysoparia* | Endangered |
| Tooth Cave pseudoscorpion | *Tartarocreagris texana* | Endangered |
| Tooth Cave spider | *Neoleptoneta myopica* | Endangered |
| Bee Creek harvestman | *Texella reddelli* | Endangered |
| Bone Cave harvestman | *Texella reyesi* | Endangered |
| Tooth Cave ground beetle | *Rhadine persephone* | Endangered |
| Kretschmarr Cave mold beetle | *Texamaurops reddelli* | Endangered |
| Canyon mock-orange | *Philadelphus ernestii* | Species of Concern |
| Texabama croton | *Croton alabamensis* | Species of Concern |
| Flatworm | *Sphalloplana mohri* | Species of Concern |
| Ostracod | *Candona* sp. nr. *stagnalis* | Species of Concern |
| Isopod | *Caecidotea reddelli* | Species of Concern |
| Isopod | *Trichoniscinae* n. s. | Species of Concern |
| Isopod | *Miktoniscus* n. s. | Species of Concern |
| Spider | *Cicurina wartoni* | Species of Concern |
| Spider | *Cicurina ellioti* | Species of Concern |
| Spider | *Cicurina bandida* | Species of Concern |
| Spider | *Cicurina reddelli* | Species of Concern |
| Spider | *Cicurina reyesi* | Species of Concern |
| Spider | *Cicurina cueva* | Species of Concern |
| Spider | *Cicurina travisae* | Species of Concern |
| Spider | *Neoleptoneta cocinna* | Species of Concern |
| Spider | *Neoleptoneta devia* | Species of Concern |
| Spider | *Eidmannella reclusa* | Species of Concern |
| Pseudoscorpion | *Aphrastochthonius* n. s. | Species of Concern |
| Pseudoscorpion | *Tartarocreagris reddelli* | Species of Concern |
| Pseudoscorpion | *Tartarocreagris intermedia* | Species of Concern |
| Pseudoscorpion | *Tartarocreagris* n. s. 3 | Species of Concern |
| Harvestman | *Texella spinoperca* | Species of Concern |
| New Comanche Trail Cave Harvestman | *Texella comanche* | Species of Concern |
| Millipede | *Speodesmus* n. s. | Species of Concern |
| Ground beetle | *Rhadine s. subterranea* | Species of Concern |
| Ground beetle | *Rhadine s.mitchelli* | Species of Concern |
| Ground beetle | *Rhadine austinica* | Species of Concern |

The Nature Conservancy of Texas (TNCTX) and the Travis Audubon Society (TAS) also manage lands for public and environmental benefit within the Preserve. These organizations are not considered Managing Partners, however, as no formal agreements with the Permit Holders have been finalized. In FY2003, the City of Lakeway accepted management obligations for the 498-acre Schramm Ranch tract, portions of which are set aside as mitigation under USFWS 10(a) permit number PRT-812695 (U. S. Department of the Interior, Fish and Wildlife Service, 1998). The City of Lakeway submits an annual report to the USFWS in conjunction with the BCCP Partners, and this document is attached herein as an appendix. A number of private landowners also manage habitat within the USFWS delineated proposed preserve boundaries, often as required under individually issued Section 10(a) permits. These landowners are responsible for reporting in accordance with the terms and conditions of their individual permits directly to the USFWS, and these reports are not incorporated into this Annual Report. The Permit Holders cooperate with these entities and private landowners to address species and land management concerns common to all BCP properties.

The City of Austin operates the BCCP Capital Improvement/Infrastructure Development Mitigation Process, and Travis County administers the BCCP Public Participation Process that addresses the mitigation needs of agencies and landowners under the terms of the Permit. The BCCP provides a voluntary, streamlined alternative for agencies and landowners seeking to comply with the Endangered Species Act (the Act). Those participating through the BCCP have met their obligations under the Act and may proceed with development under the terms of Participation Agreements. Those choosing not to participate may comply with the Endangered Species Act by obtaining an individual 10(a) permit from the U. S. Fish and Wildlife Service.

The Permit further requires that the Permit Holders submit an annual report that provides:

- an annual summary of development activities within the Permit area
- an annual list of tracts for which Participation Certificates were issued
- the amount of funds collected through Participation Certificate and USFWS directed mitigation fees
- the amount of funds expended for land acquisition
- the amount of funds expended for Preserve operations and maintenance
- an updated map of Preserve lands
- a summary of public use and habitat management activities within the Preserve, and
- copies of all research and investigation reports prepared within the last fiscal year.

**Development Activity within the Permit Area**

The City of Austin development activity report for FY2006 detailing a compilation of Development Permits issued within the City's jurisdiction of the Permit area is attached as Appendix A.

A summary of development permits issued by the Travis County Permitting office within the Permit area in FY2006 is attached as Appendix B.

**Table 2.** Projects mitigated through the use of mitigation credits during FY05 by participating agency.

| | |
|---|---|
| **City of Austin** | |
| Starting City of Austin Balance | 11,536.35 acres |
| Austin Clean Water Project – Govalle1 | (0) |
| Barclay Tract | (0) |
| Upper Walnut Creek Regional Detention Facility | (4.3) |
| AE/COA Jette Substation Upgrade | (0.1) |
| Mitigation Overcharge (see 2002 report) | 10.6 |
| ***Remaining Mitigation Credits*** | ***11,542.55 acres*** |
| **Travis County** | |
| Starting Travis County Balance | 2,672.0 |
| New preserve additions (credits) | 12.0 |
| ***Remaining Mitigation Credits*** | ***2,684.0 acres*** |
| **Lower Colorado River Authority (LCRA)** | |
| Starting LCRA Balance | 2488.3 acres |
| T bar M Septic Expansion | (0.4) |
| T bar M Cabin and Pool Slide (Ben Hayes) | (0.1) |
| Turkey Bend Entrance | (0.8) |
| Hamilton Pool Road Water Supply Pipeline | (1.3) |
| Hamilton Pool Road Water Supply Pipeline Phase 3 | (0.5) |
| Mansfield Dam Security Clearing | (0) |
| Westlake Hills WW System – Phases II and IV South | (0.9) |
| Mitigation Overcharge (see 2002 report) | 22.3 |
| ***Remaining Mitigation Credits*** | ***2506.6 acres*** |

**Mitigation Credit Balance**

The City of Austin's Balcones Canyonlands Preserve staff administers the Capital Improvement and Infrastructure Development Project mitigation credit system on behalf of the BCCP Coordinating Committee. The mitigation needs of the Permit Holders and the Managing Partner for these projects are provided under the terms of the regional Permit. Mitigation credits are issued at a rate equal to the number of acres within the Preserve system managed under the terms and conditions of the Permit and the HCP/FEIS (U. S. Department of the Interior, Fish and Wildlife Service, 1996b). Capital improvement and infrastructure development mitigation needs are subtracted from this accumulated "bank" of credits at a rate of one acre of credit per acre of habitat impact; regardless of habitat zone (see Table 2).

**Participation Certificate Activity**

Travis County's Natural Resources Department administers the BCCP Public Participation Process on behalf of the BCCP Coordinating Committee and issues Participation Certificates for cooperating landowners within the Permit area. Descriptions of participation categories are defined in the Interlocal Cooperation Agreement between Travis County and the City of Austin Implementing the Balcones Canyonlands Conservation Plan Shared Vision (City of Austin and Travis County, 1995). As required by the terms of the regional Permit, copies of each Participation Certificate and Habitat Determination map are provided to USFWS Austin Ecological Services office. Over the past year, twenty-three Participation Certificates were issued (Table 3), one under the single-family residential use provision, two for commercial use, seventeen for subdivisions, two under the City of Austin managed Infrastructure process, and one under the USFWS Alternative Determination Process.

**Funds Collected through Participation Certificate and USFWS directed mitigation fees**

A total of $2,632,146.50 was collected through the sale of Participation Certificates in FY2006. These funds are disbursed between the Permit Holders on a quarterly basis. One directed mitigation payment in the amount of $130,000.00 was received for the Lake Bluff Subdivision in accordance with the landowner's USFWS 10 (a)1(b) permit.

Travis County's Tax Benefit Financing Plan, a funding mechanism outlined in the Interlocal Cooperation Agreement between Travis County and the City of Austin Implementing the Balcones Canyonlands Conservation Plan Shared Vision (City of Austin and Travis County, 1995) generated $4,855,000.00 in FY2006. Travis County

Commissioners Court directed these funds to support County Preserve land purchases until the land acquisition goals established by the permit have been achieved.

**Table 3.** Fiscal Year 2006 Participation Certificate summary.

| Application # | Date Issued | Name | Category | Amount Paid |
|---|---|---|---|---|
| 0207 | 07/13/06 | Verandah Development, Inc. | Commercial | $101,700.00 |
| 0283 | 07/13/06 | Austin Christian Fellowship | Infrastructure | $56,122.00 |
| 0469 | 02/06/06 | Los Robles (Windsor Columbia Realty Fund LLC) | Subdivision | $60,000.00 |
| 0470 | 12/20/05 | Beardsley Lane Limited Partnership | Commercial | $25,200.00 |
| 0472 | 10/13/05 | Centex Destination Properties | Subdivision | $1,135,350.00 |
| 0471 | 06/22/06 | TxDOT | Infrastructure | $30,824.50 |
| 0482 | 01/25/06 | Spanish Oaks, L.P. | Subdivision | $48,900.00 |
| 0483 | 01/25/06 | Spanish Oaks, L.P. | Subdivision | |
| 0484 | 12/20/05 | Taylor /Woodrow/Steiner Ranch | Subdivision | $6,000.00 |
| 0489 | 01/27/06 | Longhorn Village | Subdivision | $712,000.00 |
| 0490 | 01/30/06 | Centex Destination Properties | Subdivision | $32,250.00 |
| 0491 | 04/19/06 | Myron and Darlene Menk | Single Family | $1,500.00 |
| 0500 | 07/14/06 | Embarcadero Partners | Subdivision | $168,900.00 |
| 0501 | 07/14/06 | Mark Collins Builders, Inc. | Subdivision | $28,050.00 |
| 0502 | 06/05/06 | Robert and Donna Gross | Subdivision | $900.00 |
| 0503 | 06/20/06 | Spanish Oaks, L.P. | Subdivision | $59,100.00 |
| 0504 | 06/20/06 | Spanish Oaks, L.P. | Subdivision | |
| 0505 | 06/27/06 | Standard Pacific of TX. LP | Subdivision | $80,100.00 |
| 0506 | 06/27/06 | Standard Pacific of TX. LP | Subdivision | $55,800.00 |
| 0508 | 07/13/06 | John W. Greenway | Subdivision | $10,800.00 |
| 0514 | 09/11/06 | Sweetwater Limited Partnership | Subdivision | $10,150.00 |
| 0515 | 09/11/06 | Sweetwater Limited Partnership | Subdivision | $7,000.00 |
| 0523 | 09/19/06 | Sharlyn and Wade Threadgill | Alternative/ Single Family | $1,500.00 |

**Funds Expended for Land Acquisition**

Since the inception of the BCCP, the Permit Holders have successfully competed for USFWS Habitat Conservation Plan grants each year. To date, nine Land Acquisition Assistance Program awards totaling $64,035,078.00 have been completed or are in progress (see Table 4).

**Table 4.** USFWS HCP Land Acquisition Grant awards received by the Permit Holders.

| Year | Federal Grant Funds | Minimum Local Match (25%) | Total Grant | Local Recipient |
|---|---|---|---|---|
| 1997 | $1,000,000 | $333,333 | $1,333,333 | City of Austin |
| 1998 | $2,000,000 | $666,666 | $2,666,666 | Travis County |
| 1999 | $1,500,000 | $500,000 | $2,000,000 | Travis County |
| 2000 | $4,140,000 | $1,380,000 | $5,520,000 | Travis County |
| 2001 | $14,140,000 | $4,713,333 | $18,853,333 | City of Austin, Travis County |
| 2002 | $10,000,000 | $3,333,333 | $13,333,333 | Travis County |
| 2003 | $4,993,794 | $1,647,952 | $6,641,746 | Travis County |
| 2004 | $3,375,000 | $1,125,000 | $4,500,000 | Travis County |
| 2005 | $6,890,000 | $2,296,667 | $9,186,667 | Travis County |
| **Total** | **$48,038,794** | **$15,996,284** | **$64,035,078** | |

Travis County expended a total of $667,111 on fee simple land acquisition activities in FY2006. These expenditures are broken down by tract in Table 5.

In addition to fee simple acquisitions, Travis County actively pursues alternative protection strategies such as conservation easements and deed transfers. Use of these non-traditional measures provides opportunities to secure in-perpetuity protection for habitat lands that may not otherwise be available for fee simple purchase. Approximately 25 acres were secured through these non-grant funded protection strategies in FY06.

Travis County continues to pursue fee simple purchases as well as alternatives such as conservation easements, deed transfers, and other land protection strategies to meet the goals established by the Permit.

The City of Austin committed to accruing 11,578 acres toward the completion of the BCP. Presently the City of Austin owns and manages 13,035 acres of land within the Balcones Canyonlands Preserve. At this time, the City of Austin is not negotiating for the purchase of any additional preserve land. However, the City of Austin is negotiating to assume management of private mitigation land associated with the Schramm Ranch development. This transaction will likely be completed in calendar year 2007.

**Table 5.** Travis County FY2006 BCP Land Acquisitions.

| Tract | Date Acquired | Acreage | Total Expenditures* |
|---|---|---|---|
| Grey Mountain<br>*Conservation Easement Donation* | 9 May 2006 | 25.0 | $0 |
| Hereford<br>*Fee Simple Purchase* | 27 October 2005 | 10.0 | $203,911 |
| Mirtsching<br>*Fee Simple Purchase* | 18 October 2006 | 2.5 | $463,200 |
| **Totals** | | **37.5** | **$667,111** |

* Total Expenditures includes land and associated acquisition costs (surveys, environmental site assessments, etc.)

**Funds Expended for Operations and Maintenance**

The City of Austin spent a total of $683,353 for FY06 to fund preserve management expenditures by the Austin Water Utility's Wildland Conservation Division, Balcones Canyonlands Preserve Program. This figure understates the City's total expenditures on this program since it does not include (1) work by other staff in the AWU's Wildland Conservation Division on program administration and support; (2) operation and maintenance expenditures by Austin Park and Recreation Department Operations on BCP-designated parkland; or (3) land management expenditures by the Austin Water Utility on the two BCP-designated tracts that it owns and manages. Those expenditures cannot be readily determined from their program budgets.

The Travis County Natural Resources budget for the BCP Program in FY2006 was $763,313.00. This includes Travis County General Fund expenditures as well as developer funds negotiated to support ongoing operations and maintenance of County managed Conservation Easements. This total incorporates funds spent on capital improvements including fencing construction and renovation of a single-family home converted to a field office for County staff. Note that this figure does not include expenditures by the Committee for Wild Basin Wilderness, Inc., which holds a contract to conduct educational programming and management of the County owned Wild Basin Wilderness Preserve. This total also does not include administrative, legal, and additional law enforcement support or non-habitat-related operations and maintenance provided by other Travis County Departments.

**Table 6.** Annual FY2005 and FY2006 BCP budgets for Permit Holders, the Managing Partner, and cooperating entities with summary of total budgets since plan inception.

| BCP Partner | FY2005 | FY2006 | Total Budget: 1996 to Present |
|---|---|---|---|
| City of Austin | $598,718 | $683,353 | $5,449,498 |
| Travis County | $413,072 | $763,313 | $4,075,074 |
| LCRA | $85,000 | $85,000 | $953,072 |
| TNCTX | $8,000 | $20,000 | $882,000 |
| TAS | $13,275 | $59,930 | $141,901 |
| **TOTALS** | **$1,118,065** | **$1,611,596** | **$11,501,545** |

**Updated Map of Lands Dedicated to the Balcones Canyonlands Preserve**

With the addition in FY2006 of 12 acres to the Preserve, 27,751 of the 30,428 acres of black-capped vireo and golden-cheeked warbler habitat required by the Permit (91%) have been assembled by the Permit Holders with the assistance of cooperating landowners and entities. In addition, Travis County acquired management responsibilities for 25 acres within the Preserve that had previously been managed by private landowners, thereby ensuring long-term protection of these habitat lands. A map illustrating the current status of the Balcones Canyonlands Preserve is enclosed as Appendix C. Summaries of BCP lands sorted by managing entity and by macrosite are attached as Appendices D and E, respectively.

**Public Use and Habitat Management Activities occurring within the Balcones Canyonlands Preserve**

**The City of Austin**

The Austin Water Utility (AWU) Wildland Conservation Division (WCD) staff has responsibility for management, habitat restoration, removal of threats to the habitat and inventory of existing species within the city's 13,035-acre portion of the BCP. Five biologists assigned to the WCD provide monitoring; surveying; and land management functions for the City's BCP Program. WCD staff coordinates volunteer activities and provide maintenance and administrative support.

The Utility's Wildland Conservation Division currently manages 9,852 acres of the BCP and assists PARD Park Operations on the other 3,183 acres of designated parks and Preserves.

**Table 7.** Management Status of City of Austin BCP Properties

| Tract | Primary Management Responsibility | Acreage |
|---|---|---|
| Upper Bull Creek Unit (Franklin, Hanks, Lanier, COA Canyon Creek) | AWU/BCP<br>BCP/PARD (Franklin) | 608 |
| Middle Bull Creek Unit (Ivanhoe, Beard Trust) | AWU/ BCP | 996 |
| Lower Bull Creek Unit (St. Edward's Park, Jester, Forest Ridge, 3M, Hilltop, Gibson/Nott, Hiller, Kruger) | AWU/BCP | 1140 |
| Lime Creek (inc. 100 acres of Austin-Simon, Ltd.) | AWU/BCP | 594 |
| Park West, Coldwater I & II, Long Canyon | AWU/BCP | 1345 |
| Cortaña | AWU/BCP | 1752 |
| Double J&T | AWU/BCP | 1729 |
| Reicher Ranch | AWU/BCP/PARD | 820 |
| Bohls Ranch | AWU/BCP | 450 |
| Sansom | AWU/BCP | 13 |
| Senna Hills | AWU/BCP | 35 |
| Vireo Research Area | AWU/BCP/PARD | 214 |
| Ullrich Water Treatment Plant | AWU/BCP | 18 |
| Water Treatment Plant #4 | AWU/BCP | 138 |
| **AWU/BCP Subtotal** | | **9,852** |
| Bull Creek District Park, Barton Creek Greenbelt | PARD Operations* | 25 |
| Spicewood Springs Preserve | PARD Operations | 8 |
| Barrow Preserve | PARD Operations | 8 |
| Emma Long Metro Park | PARD Operations | 950 |
| Commons Ford Park | PARD Operations | 115 |
| Barton Creek Wilderness | PARD Operations | 999 |
| Barton Creek Greenbelt | PARD Operations | 813 |
| Friesenhahn | PARD Operations | 62 |
| Mt. Bonnell | PARD Operations | 3 |
| Other City of Austin Subtotal | | **3,183** |
| **TOTAL ACREAGE** | | **13,035** |

*PARD Operations does not manage for Endangered Species; they perform regular maintenance, i.e. mowing, trash pickup, and some trail management activities. AWU BCP staff provides BCP management activities.

UPPER BULL CREEK

Staff conducted three white-tailed deer census counts on a 5-mile census route on a portion of the Upper Bull Creek Unit (Canyon Creek, Franklin, Lanier, WTP#4 tracts) in August and September of 2006, with an average survey count of one deer per 29 acres.

*Canyon Creek*

Illegal trespass from Canyon Creek development remains an ongoing problem. The primary trespass routes appear to come from the adjacent Canyon Creek conservation easements. Management activities for this tract during FY 05-06 included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Issuing warning letters to trespassers.
- Maintenance of interior roads for vehicle clearance.
- Erosion control efforts.
- Trash removal.
- Repair of perimeter fence and gates damaged by unauthorized trespass.
- Meetings with USFWS and Canyon Creek development officials regarding violations of their section 7A permit and how those violations negatively impact the BCP. The City is also in negotiations regarding taking over ownership and management duties of these adjacent private mitigation lands.
- Installation of a new deer feeder and deer stand in order to remove deer and hogs.
- Trapping and removal of feral hogs with the assistance of volunteers.
- Trapping of 25 Brown-headed Cowbirds with the assistance of volunteers. All the birds were given to the UT Neuroscience lab for research relating to how birds migrate/ brain activity. After research was complete, all birds were humanely euthanized.
- Communications with property management and neighborhood association management companies to develop educational efforts.
- Vegetation monitoring on one Land Condition Trend Analysis plot.
- Surveys for the presence of oak wilt. Identified one infected red oak and two infected live oaks. The red oak was removed. The live oaks continue to be monitored.

*Franklin*

Key management activities were:

- Trapping of feral hogs.
- Sedimentation and erosion work along Bull Creek.
- Routine patrols of main roads and perimeter fencing to look for signs of trespassing, vandalism or illicit dumping.
- Culling of deer under the TPWD Antlerless & Spike-buck Deer Control Permit (ADCP). The harvested meat was donated to the Capital Area Food Bank. (15 does were removed.)
- Maintenance of existing stands and feeders for the deer management program.
- Repair of vandalized perimeter fence and flood-damaged deer exclosures
- Tour of the tract by WPDRD staff members to see management activities (part of a charity event/ award).
- Continued to monitor and enhance the Cistern Spring/Jollyville Plateau salamander habitat restoration project, on average 2 to 3 salamanders continue to be observed.
- See collection from locally rare, spring-associated plants, and subsequent sowed at the newly-protected Cistern Spring fenced area.
- Repair of access roads.
- Removal of non-native invasive vegetation.
- Quarterly monitoring for the presence of the aquatic Jollyville Plateau salamander. (See Jollyville Plateau Salamander Data Analysis, 2006.)
- Removal of predatory fish from JVP salamander habitat. All fish were euthanized and will have a gut content analysis conducted for the presence of salamanders.
- Monitoring of salamander habitat during drought conditions. (All of the survey site area was observed dry.)
- Rescue of stranded salamanders. Survivors were taken to the WPDRD captive salamander breeding program. Stressed and dead salamanders were given to Paul Chippindale, University of Texas at Arlington for molecular work.
- Collection of JVP salamander tail clippings by a Texas State University (TSU) student in order to answer questions regarding population genetics of this species.
- Enumeration and mapping of Golden-cheeked Warbler territories. (See City of Austin 2006 Golden-cheeked Warbler Report, Appendix F).
- Installation of new deer exclosures around hardwood saplings.
- Surveys for the presence of oak wilt: no oak wilt observed.

*Hanks and Gardens at Bull Creek*

A portion of the Hanks tract was involved in the construction of a regional flood retention facility on the adjoining Gardens of Bull Creek (GBC) property (To date, the GBC property's acreage is not counted toward the BCP total, but is managed as BCP land). Management activities for these tracts included:

- Routine patrol of the area for evidence of trespass and preserve damage.
- Monitoring of the health of 229 trees that were planted in November 2000, and maintenance as necessary.
- Planting large numbers of seeds including: live oak, red oak, red mulberry, Arizona walnut, Carolina basswood, *Amorpha roemeriana*, and *Viburnum rufidulum* as well as other species to aid Golden-cheeked Warbler habitat restoration.
- Repair of a water irrigation line.
- Trash removal.
- Repair of an access road by removing fallen trees.
- Repair of vandalized perimeter fence and deer exclosure.
- Repair of fences, gates and floodgates damaged by floodwaters.
- Posting of new perimeter signs and repair of vandalized signs.
- Monitoring of hardwood saplings that had been planted in previous years by Boy Scout troops within a deer exclosure.
- Seeding of eroded areas with native grasses.
- Collecting seed for spring restoration project.
- Documentation of erosion and sedimentation problems from adjacent development that is adversely affecting Bull Creek water quality as well as Jollyville Plateau salamander habitat. Staff reported all erosion problems associated with the adjacent development to the City of Austin's environmental inspectors. Remediation was enacted as required by City code.
- Feral hog trapping.
- Quarterly monitoring for the presence of the aquatic Jollyville Plateau salamander. (See Jollyville Plateau Salamander Data Analysis, 2006, attached as Appendix H).
- Removal of predatory fish from JVP salamander habitat. All fish were euthanized and will have a gut content analysis conducted for the presence of salamanders.
- Monitoring of salamander habitat during drought conditions, in which most of tributary 5 was dry.
- Collection of JVP salamander tail clippings by a Texas State University (TSU) student in order to answer questions regarding population genetics of this species.
- Enumeration and mapping of Golden-cheeked Warbler territories. (See City of Austin 2006 Golden-cheeked Warbler Report, Appendix F).
- Removal of non-native invasive vegetation.

- Surveys for the presence of oak wilt. Identified three newly infected red oaks. All three red oaks were removed and/or girdled

*Lanier*

Within the last four years there have been 4 large apartment complexes built nearby without adequate barriers to stop illegal trespass onto adjacent preserve land. Most of the illegal trespass on Lanier originates from Canyon Creek mitigation land.

Management activities included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping
- Fence repair, including flood-damaged deer exclosure.
- Removal of cattle. Cattle from the adjacent Ribelin Ranch entered the Lanier tract through a break in the fence.
- Repair of flood damage to Lanier spring by removing massive amounts of flood debris and sediment.
- Removal of predatory fish from spring.
- Monitoring of spring during drought conditions. (Spring went completely dry.)
- Quarterly salamander surveys at Lanier Spring.
- Culling of deer under the TPWD Antlerless & Spike-buck Deer Control Permit (ADCP). The harvested meat was donated to the Capital Area Food Bank.
- Maintenance of existing stands and feeders for the deer management program.
- Removal of feral hogs. (28 hogs were trapped and an additional 13 were shot.)
- Removal of non-native invasive vegetation.
- Maintenance of interior roads for vehicle clearance.
- Vegetation monitoring on one Land Condition Trend Analysis plot.
- Surveys for the presence of oak wilt: no oak wilt observed.

*WTP 4*

Management activities included:

- Enumeration and mapping of Golden-cheeked Warbler territories. (See City of Austin 2006 Golden-cheeked Warbler Report, Appendix F).
- Monitoring of salamanders at Moss Gully spring.
- Monitoring of the newly discovered population of Jollyville Plateau (JVP) salamanders in the main branch of Bull Creek.
- Participation in water quality and JVP salamander monitoring plan to determine if the future water treatment plant will have any negative impacts.

- Participation in discussions on methods to minimize the potential damage the future water treatment plant may have on the BCP.
- Assisting WPDRD staff acquire baseline data on the main branch of Bull Creek and associated springs prior to the construction of a new water treatment plant.
- Repair of perimeter fence and floodgates from recent flood damage to prevent entry of feral hogs and deer.
- Trash removal.
- Removal of non-native invasive vegetation.
- Culling of deer under the TPWD Antlerless & Spike-buck Deer Control Permit (ADCP). The harvested meat was donated to the Capital Area Food Bank.
- Operation of hog traps and a hog pen trap.
- Surveys for the presence of oak wilt: no oak wilt observed.

MIDDLE BULL CREEK

*Ivanhoe*

Management activities included the following:

- Mapping of GCWA territories on a 100-acre prime study plot (See City of Austin 2006 Golden-cheeked Warbler report, Appendix F).
- Enumeration and mapping of GCWA territories on the southern portion of Ivanhoe tract (See City of Austin 2006 Golden-cheeked Warbler report, Appendix F).
- Operation of feral hog traps.
- Maintaining and operating a Brown-headed Cowbird trap, with the assistance of volunteers. All the birds were given to the UT Neuroscience lab for research relating on how birds migrate/ brain activity. After research was complete all birds were humanely euthanized
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Planning for a new perimeter fence between this tract and the Canyon Ridge development.
- Erosion repair on access road.
- Repair of a vandalized gate.
- Reporting, and supervising the removal of, a stolen and “dumped” vehicle.
- Inspection of Austin Energy and Lower Colorado River Authority line-clearing activities. Staff determined that LCRA had exceeded the limits of clearing. LCRA is continuing to fulfill their mitigation requirements for the damage to vegetation.
- Removal of non-native invasive vegetation.
- Trash removal.

- Monitoring of the rare canyon-mock orange (*Philadelphus ernestii*).
- Negotiation of an agreement with "Rancho LaValencia" for mitigation and remediation of disturbed preserve property.
- Documentation of several instances of siltation and erosion originating on the Canyon Ridge development. WPDRD environmental inspectors negotiated agreements with the developer to reduce these ongoing problems.
- Quarterly monitoring for the presence of the aquatic Jollyville Plateau Salamander. (See Jollyville Plateau Salamander Data Analysis, 2006, Appendix H)
- Biannual monitoring of Beard Ranch Cave for visible signs of vandalism and infestations of red imported fire ants. No problems were noted. (See City of Austin 2006 Karst Report, Appendix U).
- Preparations for contracting out the mapping of the interior of Beard Ranch Cave.
- Rare and exotic plant searches, with help from volunteers.
- Surveys for the presence of oak wilt: no oak wilt observed.

*Beard Family Trust*

Management activities for this tract included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Sedimentation and erosion control work.
- Repair of perimeter fences.
- Planning for a new perimeter fence between this tract and the Canyon Ridge development.
- Rare and exotic plant searches, with help from volunteers.
- Documentation of several instances of siltation and erosion originating on the Canyon Ridge development. WPDRD environmental inspectors negotiated agreements with the developer to reduce these ongoing problems.
- Removal of non-native invasive vegetation.
- Surveys for the presence of oak wilt: no oak wilt observed.

LOWER BULL CREEK

*Forest Ridge, Hilltop, Hiller, and Gibson/Nott*

Management activities on these tracts included:

- Trail maintenance on lower Bull Creek trail with help from American Youth Works. Highlights included repairing a vandalized information kiosk and installing wood fencing at the lower end of Bull Creek trail

- Mapping of GCWA territories on a 100-acre prime study plot, and enumerations of GCWA territories on the remainder of the tract. (See City of Austin 2006 Golden-cheeked Warbler report, Appendix F)
- Leading six tours for 2006 Bull Creek Preserve entry permit holders.
- Continued graduate research on GCWA productivity and nest predation.
- A tour for Austin Nature and Science Center staff highlighting management issues.
- Cave cricket exit count at Jest John cave.
- Routine fence repair and maintenance.
- Surveys for the presence of oak wilt: no oak wilt observed.
- Monitoring of vegetation on two Land Condition Trend Analysis (LCTA) transects.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Trash removal.
- Removal of non-native invasive vegetation.

*Jester*

Public access has been allowed on a portion of this tract; however, dodge ways have been installed to curtail prohibited mountain bike and horse use of this area. Other management activities have included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Continued graduate research on GCWA productivity and nest predation.
- Repair of the perimeter fence on numerous occasions. Staff filed a police report on this activity.
- Posting “no trespassing” signs, as well as a new and larger sign at dodge way access points alerting hikers to restricted access and the requirement of a permit between March 1 and July 31.
- Removal of non-native invasive vegetation
- Inspection of Jester Pit.
- Monitoring of problem animals: deer, feral hogs, and cowbirds.
- Surveys for the presence of oak wilt: no oak wilt observed.
- Trail maintenance.
- Trash removal.
- Photo-documentation of the dumping of yard waste on Arterial 8. Staff approached the owner about this problem. Yard waste was removed.

*St. Edwards, 3M and Kruger*

Management activities on these tracts included:

- Mapping of GCWA territories on a 100-acre prime study plot, and enumerations of GCWA territories elsewhere on these tracts. (See City of Austin 2006 Golden-cheeked Warbler report, Appendix F)
- Trail maintenance at St. Edwards Park: removing large fallen trees and closing illegal trails.
- Improvement of dodge ways to prevent access by mountain bikes on Jester and St. Edwards Park.
- Operation and routine maintenance of a Brown-headed Cowbird trap on 3M.
- Maintenance of interior roads for vehicle clearance.
- Planning and monitoring an LCRA re-seeding project beneath a power line on 3M.
- Surveys for the presence of oak wilt: no oak wilt observed.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Trash removal.
- Routine fence repair and maintenance.
- Removal of non-native invasive vegetation.

CYPRESS CREEK UNIT

*Lime Creek*

Travis County completed work on the new Lime Creek road expansion project (including a new waterline). A portion of Lime Creek preserve was taken, and for mitigation the COA BCP has received a portion of the old road alignment. Travis County installed an eight-foot game fence along the road re-alignment area and has initiated restoration work on the abandoned portion of Lime Creek road.

Other management activities for this tract included:

- Monitoring: Lime Creek has two caves, which harbor endangered karst species. Biannual monitoring of these caves has been conducted for karst fauna and infestations of red imported fire ants. Fire ants were found near the entrance of Broken Arrow cave. (See City of Austin 2006 Karst Report, Appendix U).
- Discovery and mapping of a new spring. The discovery was under low-flow drought conditions. In the future, staff will survey the spring for the presence of salamanders during periods of average or above-average rainfall.
- Enumeration and mapping of GCWAs. (See City of Austin 2006 Golden-Cheeked Warbler Monitoring Report, Appendix F)

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Planning of Black-capped Vireo habitat restoration. Approximately 60 acres will be restored. A contract was awarded; however, the contractor backed out. BCP staff will rebid this project for next fiscal year.
- Setting of vegetation photo points to monitor progress of future BCVI habitat manipulation.
- Periodic fence repair. Perimeter fence has been repeatedly damaged by contractor work and vehicles crashing into it.
- Removal of trash, brush, and construction spoils.
- Removal of fallen trees and branches from access road.
- Surveys for the presence of oak wilt: no oak wilt observed.

NORTH LAKE AUSTIN MACROSITE

*Coldwater/Cowfork*

Management activities on these tracts included:

- Enumeration of GCWA territories. (See City of Austin 2006 Golden-Cheeked Warbler Report, Appendix F)
- Assessment of the tracts for potential BCVI habitat creation/restoration.
- Monitoring of vegetation on Land Condition Trend Analysis (LCTA) transects.
- Discovery of encroachment on the western boundary of Cowfork: materials were being stored on BCP property and trees had been removed. After neighboring landowners were notified, they removed materials and planted native trees.
- Periodic patrols of main roads and perimeter fencing to look for signs of trespassing, vandalism or dumping.
- Removal of trash, brush, and construction spoils.
- Surveys for the presence of oak wilt: no oak wilt observed.

*Cortaña*

In June 2006, the City of Austin proposed constructing a new water treatment plant on the northern end of this tract, in lieu of constructing it on the original WTP4 site in the Bull Creek watershed. Consultants began surveys of the site, looking for critical environmental features. Several small features were found and excavated. Several of the excavated features were baited in an attempt to find endangered karst invertebrates. They trapped a troglobitic pseudoscorpion that was sent to a specialist for identification.

Other management activities on this tract included:

- Enumeration of GCWA territories. (See City of Austin 2006 Golden-Cheeked Warbler Report, Appendix F)
- Enumeration of BCVI territories and assessment of productivity. (See City of Austin 2006 Black-capped Vireo Report, Appendix F)
- Removal of vegetation in a 9-acre parcel adjacent to the northern restoration area, to begin creation of more BCVI habitat.
- Photo point monitoring of vegetation in the cleared 9-acre parcel.
- Monitoring of vegetation in BCVI habitat restoration areas by means of point-intercept and line-intercept methods within 12 randomly-placed circular plots.
- Maintenance of 9 acres of previously restored BCVI habitat.
- Collection and planting of Shin Oak acorns for restoration of BCVI habitat.
- Inventory of plants in existing BCVI habitat.
- Assessment of the tract for further BCVI habitat creation/restoration.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, or dumping.
- Repair of the perimeter fence.
- Notification of 19 to 20 neighboring property owners that they were encroaching on BCP property.
- Replacement of non-native grass with native grasses and woody plants behind two encroaching properties.
- Removal of trash, brush, and construction spoils.
- Writing specifications for silt fence maintenance along power lines, and coordinating maintenance with Lower Colorado River Authority.
- Water samples taken by volunteers from a stream that enters the tract from Steiner Ranch.
- Trimming of encroaching vegetation away from roads.
- Mapping and removal of non-native invasive vegetation.
- Installing, maintaining, and operating two Brown-headed Cowbird traps.
- Culling of white-tailed deer: 17 deer removed from the tract under the TPWD Level 2 Managed Lands Deer Permit (MLDP). Harvesting began in November of 2005 and ended in late January of 2006. The harvested meat was donated to the Capital Area Food Bank.
- Three white-tailed deer census counts on a five-mile route (representing the North Lake Austin Macrosite) in August and September, with an average survey count of one deer per 11 acres.
- Maintenance of existing deer stands and feeders.

- Surveys for the presence of oak wilt. A new oak wilt center was found. Only live oaks are present, no red oaks. Discovered that the trench, installed in 2003 around the known oak wilt center near Big View Drive, has been compromised. Several live oaks outside the trench have become infected.
- Tour of BCVI habitat for an official of Bird Life International.

*Emma Long Park and Preserve*

Management activities included:

- Mapping of GCWA territories on a 100-acre prime study plot, and enumerations of GCWA territories on the remainder of these tracts. (See City of Austin 2006 Golden-cheeked Warbler report, Appendix F)
- Monitoring Turkey Creek trail and documenting trail problems and erosion.
- Planned, with the Turkey Creek trail working group, remediation of habitat degradation.
- Operation of a Brown-headed Cowbird trap. Moved the trap to private property due to vandalism, and reported the vandalism to the City of Austin Park Police.
- Trail maintenance with PARD and a volunteer group, including installation of a wooden railing along the trail and adding new signage created by BCP staff.
- Sowing inland sea oats along restoration area of the Turkey Creek trail.
- Removal of non-native invasive vegetation, including initiation of a multi-year volunteer project for the removal of two acres of Tree-of-Heaven.
- Surveys for new oak wilt centers, and monitoring of existing oak wilt centers.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Trash removal.

*Long Canyon*

Management activities on this tract included:

- Enumeration of GCWA territories. (See City of Austin 2006 Golden-Cheeked Warbler Report, Appendix F)
- Assessment of the tract for potential BCVI habitat creation/restoration.
- Rare and exotic plant search accomplished by volunteers.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism or dumping.
- Removal of trash, brush, and construction spoils.
- Trimming of encroaching vegetation away from a road.
- Surveys for the presence of oak wilt: no oak wilt observed.

- Mapping of non-native invasive vegetation.
- A guided hike for the Long Canyon Homeowner's Association.

*Parke West*

Management activities on this tract included:

- Enumeration of GCWA territories. (See City of Austin 2006 Golden-Cheeked Warbler Report, Appendix F)
- Assessment of the tract for potential BCVI habitat creation/restoration.
- Cave faunal survey at Spider Cave. (See City of Austin 2006 Karst Report, Appendix U)
- Monitoring of Spider Cave and vicinity for the presence of fire ants.
- Routine monitoring of caves on site.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, or dumping.
- Discovery of damage to the western boundary fence, caused when a motorist in the neighboring apartment complex lost control of a vehicle. Repair is still pending.
- Removal of trash, brush, and construction spoils.
- Surveys for the presence of oak wilt: no oak wilt observed.
- Searches for rare and exotic plants, with the help of volunteers.

SOUTH LAKE AUSTIN MACROSITE

Staff conducted 3 white-tailed deer census counts on a 5–mile census route on the South Lake Austin Macrosite tracts (Double J&T, Reicher Ranch, and Bohls) in August and September of 2006, with an average survey count of one deer per 10.1 acres. A total of 23 white-tailed deer were culled from the macrosite.

*Bohls Ranch*

This riverfront tract is bordered on the west by Reicher Ranch and on the east by the Lake Pointe subdivision and its 240-acre mitigation tract. Since much of the common boundary between Bohls and Lake Pointe mitigation is not fenced, the potential for frequent trespassing onto Bohls continues. Management activities included:

- Mapping of GCWA territories on a 100-acre prime study plot (See the City of Austin 2006 Golden-cheeked Warbler report, Appendix F).
- Ashe juniper removal and manipulation for deer management (shooting lanes).
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Posting of updated BCP signage on entrance gate.
- Surveys for the presence of oak wilt: no oak wilt observed.

- Black-capped Vireo habitat manipulation and restoration efforts, including -- with the assistance of American Youthworks -- the topping of all shin oaks and live oaks in the newer 18 acres of the BCVI restoration site.
- Removal of non-native invasive vegetation.
- Culling of deer under the TPWD Level 2 Managed Lands Deer Permit (MLDP). Harvesting began in November of 2005 and ended in late January of 2006. Harvested meat was donated to the Capital Area Food Bank.
- Maintenance of existing stands and feeders for the deer management program.
- Breeding Bird Surveys at 6 points in the Vireo Restoration area (4 visits).
- Monitoring of birds on 6 Land Condition Trend Analysis transects in the proposed wastewater treatment plant area (4 visits).
- Installation of a Brown-headed Cowbird trap. It was inoperable due to coyote management activities.
- Placing brush to protect dozens of red oak seedlings and saplings from deer browse.
- Coyote management activities conducted by Texas Cooperative Extension-Wildlife Services (USDA-APHIS).
- Photo-point monitoring of vegetation in BCVI habitat restoration area.
- An interpretive hike for the public.

*Commons Ford Ranch Park*

Management activities included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Enumeration of GCWA territories. (See City of Austin 2006 Golden-Cheeked Warbler Report, Appendix F)
- Surveys for the presence of oak wilt: no oak wilt observed.

*Double J&T*

Management activities included:

- Trash removal.
- Perimeter fence repair work.
- Posting of “No Trespassing” signs and updated BCP signs on entrance gates.
- Enumeration of GCWA territories. (See City of Austin 2006 Golden-Cheeked Warbler Report, Appendix F)
- GCWA habitat enhancement: continued planting native vegetation along a fence line.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.

- Dealing with neighborhood encroachment issues. One incident involved an Apache Shores resident who had a tree removed and dumped the resulting brush onto Preserve land. Issued trespass warning letter.
- Removal of non-native invasive plants.
- Culling of deer under the TPWD Level 2 Managed Lands Deer Permit (MLDP). Harvesting began in November of 2005 and ended in late January of 2006. The harvested meat was donated to the Capital Area Food Bank.
- Maintenance of existing stands and feeders for the deer management program.
- Surveys for the presence of oak wilt. Continued monitoring of two existing OW centers.
- Monitoring of transplanted grasses at a quarry restoration site.
- Installation, maintenance, and operation of a Brown-headed Cowbird trap.
- Re-vegetation of 0.6 acres disturbed by the construction of a waterline by WCID 17 across Murfin Road. The area was re-seeded with native grasses and 120 native shrubs and trees were planted (per specifications of 200 stems/acre, City of Austin, WPDRD).
- Maintenance of interior roads for vehicle clearance.

*Reicher Ranch*

Management activities included:

- Trash removal.
- Culling of deer under the TPWD Level 2 Managed Lands Deer Permit (MLDP). Harvesting began in November of 2005 and ended in late January of 2006. The harvested meat was donated to the Capital Area Food Bank.
- Enumeration of GCWA territories. (See City of Austin 2006 Golden-Cheeked Warbler Report, Appendix F)
- Routine maintenance and upkeep of the greenhouse.
- Seed preparation and planting of numerous plant species in greenhouse for use in re-vegetation efforts on the BCP. Supervised volunteers on routine maintenance and plantings.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Removal of non-native invasive vegetation.
- Surveys for the presence of oak wilt, and monitoring of an existing OW center.
- Maintenance and operation of a Brown-headed Cowbird trap.
- Road repair work.
- Revegetation and sowing of native seed around WCD headquarters.

- Rare and exotic plant surveys, conducted with the help of volunteers.
- Monitoring deer browse of twist-leaf yucca to gauge browsing pressure.

BARTON CREEK MACROSITE

*Barton Creek Wilderness Area*

FY 2005-06 management highlights for the B.C. Wilderness Park include:

- Periodic inspections of Cave Y and Substation Sink entrances for signs of human visitation, trash, and damage. Found no signs of trespass or vandalism.
- Monitoring for infestations of red imported fire ants. Found no activity within the caves.
- Repair of vandalized perimeter fence, gate, and closure signs to prevent illegal access into GCWA habitat.
- Mapping of GCWA territories on a 100-acre prime study plot, and enumerations of GCWA territories on the remainder of the tract. (See City of Austin 2006 Golden-Cheeked Warbler and Black-capped Vireo Monitoring Report, Appendix F)
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Searches for new bracted twistflower locations, and monitoring of known sites.
- Collection of tissue samples from 2 bracted twistflower plants. Samples will be used to determine whether these plants are genetically distinct from other populations.
- Closing illegal trails.
- Removal of non-native invasive vegetation.
- Removal of several active and inactive camps, with cooperation from PARD and Park Police.
- Routine trash removal.
- Cave faunal surveys at Cave Y and Seibert Sink. (See Karst Report, Appendix U) Routine maintenance and monitoring.
- Securing grants from Partners for Fish and Wildlife to install fencing to protect bracted twistflower and GCWA habitat.
- Monitoring active oak wilt centers. Identified four newly infected red oaks and eight infected live oaks. All four red oaks were removed and/or girdled. Live oaks continue to be monitored.
- Vegetation removal under transmission power lines for maintenance purposes by Austin Energy and LCRA.
- Mapping the geology of, and removing trash from, Backdoor Cave.
- Assisting an adjacent neighborhood representative on a grant specific to Barton Creek invasive plant removal.

*Barton Creek Greenbelt*

Management activities included:

- An annual karst fauna survey at Airman's Cave, and routine maintenance and monitoring. (See Karst Report, Appendix U).
- Routine water and benthic sampling from several points on the creek by Austin WSPDR staff. These samples help to determine the health of the creek and how the creek is being affected by adjacent urban sprawl.
- Surveys for the presence of oak wilt: no oak wilt observed.
- Removal of non-native invasive vegetation.
- Discovery of a new cave, and assessment of its recharge potential.

*Friesenhahn*

Management activities included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Monitoring active oak wilt centers. Identified two newly infected red oaks and five newly infected live oaks. The red oaks were removed and/or girdled and the live oaks continue to be monitored.
- Removal of non-native invasive vegetation.
- Trash removal.
- Removal of vegetation from beneath transmission power lines for maintenance purposes by Austin Energy and LCRA.
- Removal of an active camp, with cooperation from PARD and Park Police.

*Senna Hills*

Management activities included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Discussions with a concerned neighbor, Kate Buck, regarding non-native species and endangered species management.
- Contacting Travis County Sheriff's Environmental Investigator about illegal dumping issue with adjacent landowner. Dump was subsequently removed.
- Surveys for the presence of oak wilt: no oak wilt observed.

WEST AUSTIN MACROSITE

*Barrow Preserve*

AWU and WPDRD staff met on site and immediately downstream to address ongoing sewer line problems. AWU will re-route some of the existing line and add manholes, which will help prevent future sewer leaks.

Other management activities included:

- Routine patrols and monitoring of adjacent new development (Canyon Rim).
- Water monitoring for pollutants by WSPDR staff.
- Quarterly monitoring for the presence of the aquatic Jollyville Plateau salamander. (See Jollyville Plateau Salamander Data Analysis, 2006, Appendix H)
- Discovery of a new cave on site. Staff surveyed the cave for the presence of salamanders and other rare karst species. No cave-adapted species were observed.
- Removal of non-native invasive vegetation
- Surveys for the presence of oak wilt: no oak wilt observed.

*Mount Bonnell Park*

This small hilltop park overlooking Lake Austin continues to receive high visitation rates, especially by out-of-town visitors seeking a panoramic view of the lake and scenic Texas Hill Country. Property owners to the immediate south have recently cleared the land and constructed homes, effectively removing the vast majority of the habitat for the rare bracted twistflower (*Streptanthus bracteatus*). Management activities included:

- Extensive monitoring of bracted twistflower by volunteers. Due to the drought and habitat destruction, only a few plants were observed, none of which put out seed.
- Collection of a small amount of tissue from the few plants observed, for molecular work conducted by Texas A&M to determine if this population is distinct from other populations in the Austin area.
- Discovery of a new illegal trail cut through a historic Streptanthus site. Staff closed the illegal trail with brush.
- Invasive plant removal -- woody plants removed by BCP and PARD staff

*Stillhouse Hollow*

Management activities include:

- Erosion and sedimentation control.
- Repair of vandalized security fence around Cotterell Cave
- Control of red imported fire ants with boiling water. (See Karst Report, Appendix U).
- Removal of non-native invasive vegetation
- Trail maintenance and repair.
- Re-posting of “no climbing“ signs in the canyon area to discourage ongoing trespass.

- Discussions of wildfire concerns with neighbors. PARD and BCP staff met with the adjacent neighborhoods associations. Staff removed brush illegally dumped by nearby homeowners, thus reducing wildfire risk.
- Beginning work on an interpretive kiosk, with volunteer assistance and in collaboration with the Parks and Recreation Department.
- Trash removal (including the removal of tree forts).
- Sowing seed of locally collected native plants to help control erosion where it is occurring.
- Two faunal surveys at Cotterell Cave (Karst Report, Appendix U).
- Gating of Cotterell Cave. A local cave consultant won the bid and successfully gated the cave. This was necessary because trespassers continued to cut the perimeter fence.
- Completion of the deep tree root study by researchers from Duke and New Mexico Universities, and removal of all of their monitoring equipment from Cotterell Cave. The researchers will publish their results soon.
- Quarterly surveys for the Jollyville Plateau salamander on this preserve and the land immediately downstream. This site is the type locality for the Jollyville Plateau salamander. This population crashed in 1994 and has never really recovered. Some of the remaining salamanders have notable spinal deformities. (See Jollyville Plateau Salamander Data Analysis, 2006, Appendix H)
- Collection of JVP salamander tail clippings by a Texas State University (TSU) student in order to answer questions regarding population genetics of this species.
- Vegetation monitoring on one Land Condition Trend Analysis plot.
- Surveys for the presence of oak wilt: no oak wilt observed.

*Ullrich Water Treatment Plant*

This tract is managed by the Austin Water Utility. Management activities overseen by BCP staff and volunteers included:

- Surveys of the site for the bracted twistflower: found one plant.
- Collection of a small amount of tissue from this plant to be used for molecular work conducted by Texas A&M to determine if this population is distinct from other populations in the Austin area.
- Installing a gate at the entrance to Little Bee Creek cave to deter trespass and vandalism
- A cave faunal survey conducted by staff at Little Bee Creek cave (See Karst report, Appendix U).

*Vireo Research Area*

Management activities on this tract included:

Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, or dumping.

- Discovery and removal of a geo-cache.
- Enumeration of BCVI territories; no vireos were detected.
- Enumeration of GCWA territories; no warblers were detected.
- Assessment of the tract for potential BCVI habitat creation/restoration.
- Monitoring of active oak wilt; five infected red oaks were identified and removed.
- Removal of non-native invasive vegetation.

**Travis County**

Travis County currently manages a total of 4,787 acres of habitat lands dedicated to the BCP, and continues to actively pursue acquisition and management of additional habitat lands to meet the goals of the BCCP.

BULL CREEK MACROSITE

*Canyon Vista*

The Canyon Vista tract consists of two parcels located in the Bull Creek Macrosite. The 237-acre Canyon Vista tract and the 1-acre Canyon Vista Conservation Easement were conveyed to the County by a private landowner previously managing these lands under USFWS 10(a) permit PRT-783564. Travis County accepted transfer of these lands in June of 2004. Management efforts included:

- Regular patrols by Travis County BCP Rangers.
- Baseline data and land use history was researched and recorded, and creation of a Land Management Plan was initiated. Staff expects to present a final draft to the USFWS in FY2007.
- Continuing public outreach efforts with neighboring landowners, Home Owners Associations, and the staff and students at the adjacent Laurel Mountain Elementary School.
- Travis County completed fencing and posting the property perimeter in order to minimize unauthorized access and protect human health and safety.
- Travis County met with homeowners and developers with interests adjacent to the preserve to address encroachment, erosion, trespass and illegal dumping concerns.
- Golden-cheeked warbler surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season*, attached as Appendix S.

- White tailed deer and feral hog population surveys were initiated and planning for management of these species was planned for FY2007.

*Ribelin Ranch*

The Ribelin Ranch tract was acquired fee simple by Travis County in June of 2004. This parcel consists of 320 acres and connects City of Austin managed preserve lands located to the south (the Ivanhoe tract) with those to the north and west (the Franklin and Lanier tracts). Travis County management on the Ribelin Ranch tract in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Baseline data and land use history was researched and recorded, and creation of a Land Management Plan was initiated. Staff expects to present a final draft to the USFWS in FY2007.
- Travis County staff met with and reviewed power line and infrastructure maintenance activities performed by multiple utility providers.
- Coordination of management and monitoring efforts with City of Austin BCP staff responsible for surrounding parcels.
- Exotic and invasive plants were identified and management efforts were directed by Structural Pest Control Board licensed Natural Resources staff. Heavenly Bamboo (*Nandina domestica)* and Japanese Privet (*Ligustrum japonicum)* populations were cut and treated with a 1:5 Garlon 4/Red River basal oil mix.
- Travis County staff trapped brown-headed cowbirds on the preserve, as well as on private property immediately adjacent to the Jollyville Unit. Investigations to quantify and manage populations of white-tailed deer and feral hogs continued. A summary of these activities is attached as Appendix P.
- Endangered species surveys and baseline data collection were initiated and are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season* report, attached as Appendix S.

CYPRESS CREEK MACROSITE

CYPRESS UNIT

The Cypress Unit consists of 473 acres located within the Cypress Creek Macrosite. The Cypress Unit is comprised of the Attwood, Blake, "the Crossings", King tract and Toops tracts, and includes lands held in fee simple ownership and managed thorough conservation easements.

*Attwood*

The 31-acre Attwood tract was acquired fee simple in June of 2004. Management activities on the Attwood tract in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Boundary delineation was initiated.
- Travis County staff worked to coordinate removal of debris and an abandoned mobile home on site.
- White-tailed deer populations were surveyed, and management of these populations continued this year. For more information on Wildlife Management, please see *2006 Summary of Wildlife Management Activities on Travis County Managed Tracts of the Balcones Canyonlands Preserve*, attached as Appendix P.
- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season*, attached as Appendix S.

*Blake tract*

The 38-acre Blake tract was a fee simple acquisition completed in June of 2004. Management efforts included:

- Regular patrols by Travis County BCP Rangers.
- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season*, attached as Appendix S.

*"The Crossings" tract*

The tract referred to as "The Crossings", also sometimes referred to as the Beck tract, consists of a 175-acre conservation easement conveyed to Travis County in March of 2004. Management obligations were accepted by Travis County as the result of terms of the landowner's USFWS 10(a) permit TE-024619-0. Habitat management in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- County staff provided education and outreach opportunities and provided management guidance for The Crossings' on-site staff.
- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season*, attached as Appendix S.

*King tract*

The King tract consists of a 59-acre parcel immediately adjacent to the Attwood and Blake tracts, as well as the Nature Conservancy of Texas' Lehmann Preserve. This parcel was acquired in October of 2003. Management activities on the King tract in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season*, attached as Appendix S.

*Toops tract*

The 170-acre Toops tract was available to the public through guided access for educational and outreach activities provided by Travis County BCP staff. Habitat management activities in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Travis County staff met with and reviewed power line and infrastructure maintenance activities performed by multiple utility providers.
- Assessment and control of non-native and invasive plant species continued.
- Investigations to quantify and manage white-tailed deer populations continued. A summary of these activities is attached as Appendix P.
- Fencing and property boundary delineation continued.
- White tailed deer and feral hog population surveys were initiated and planning for management of these species was planned for FY2007.
- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season*, attached as Appendix S.

JOLLYVILLE UNIT

The Jollyville Unit is located in the Cypress Creek Macrosite and incorporates the Bunten, Cuevas, Grandview Hills, Lake Perspectives, Nootsie, Romberg, Stratton/Verandah, Tomen Grandview Hills Section 14 Lot 2, Tomen Verandah Apartments Section 8, Vireo Ridge and Vista Point tracts, and includes lands held in fee simple ownership and managed thorough conservation easements. One new acquisition, referred to as the Mirtching tract, was acquired in FY2006.

*Bunten tract*

The 170-acre Bunten tract was acquired in fee during FY2002. Travis County habitat management occurring on the Bunten tract in FY2006 consisted of:

- Regular patrols completed by Travis County BCP Rangers.
- A 100-acre study plot for collection of long-term distribution and abundance data for the golden-cheeked warbler was monitored. Results of the intensive data collection and monitoring on the study plot are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler, 2006 Field Season* report, attached as Appendix S.
- Assessment and control of non-native and invasive plant species on this heavily impacted tract continued. Of special concern are populations of invasive species including bamboo *(Bambusa* spp.), chaste tree (*Vitex agnus-castus*), Chinaberry (*Melia azedarach),* Chinese parasol *(Firmiana simplex),* Chinese wisteria *(Wisteria sinensis),* Crape myrtle *(Lagerstroemia indica),* heavenly bamboo (*Nandina domestica),* Multiflora rose *(Rosa multiflora)* and periwinkle *(Vinca major)* found on this tract. Under the direction of Structural Pest Control Board licensed staff, populations of these invasives were cut, cut and treated, or hand pulled where appropriate. Details concerning vegetation monitoring and management on Travis County BCP properties are found in Appendix T, *Vegetation Management Activities on Travis County Balcones Canyonlands Preserve during FY2006*.
- Travis County Natural Resources staff coordinated Jollyville Plateau salamander survey and monitoring efforts with City of Austin Watershed Protection and Development Review staff. Substrate composition, water quality parameters (temperature, pH, specific conductance, alkalinity and dissolved gasses), and population surveys were initiated. A report detailing these findings is presented attached in Appendix H.
- Fencing and property boundary delineation continued.

*Cuevas Tract*

The 140-acre Cuevas tract (also sometimes referred to as the "Tomen-Parke Cave tract") was acquired fee simple in December 2003. Habitat management activities in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Golden-cheeked warbler surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler, 2006 Field Season*, attached as Appendix S.
- Surface monitoring of protected karst features continued, and are discussed in the *Balcones Canyonlands Preserve Karst Management 2006 Annual Report*, attached as Appendix U.

- Fencing and property boundary delineation continued.

*Grandview Hills tract*

The Grandview Hills tract consists of multiple separate parcels that were acquired fee simple or conveyed through conservation easements in FY2002. Habitat management on Grandview Hills in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Travis County Natural Resources and Law Enforcement staff provided members of the Grandview Hills Homeowners Association and the Ridge at Grandview Hills Homeowners Association with guided tours and educational opportunities in the preserve units nearest their homes.
- Travis County Natural Resources staff met with the Grandview Hills Homeowners Association (GVH HOA) Board of Directors to continue to discuss management of Talus Springs Cave. For more information about this critical karst feature, see T*he Balcones Canyonlands Preserve Karst Management 2006 Annual Report* attached as Appendix U.
- Black-capped vireo surveys were performed and results are summarized in Travis County's *Monitoring of the Black-capped Vireo, 2006* report, attached as Appendix R.
- Travis County staff trapped brown-headed cowbirds and continued investigations to quantify and manage populations of white-tailed deer and feral hogs. The *2006 Summary of Wildlife Management Activities on Travis County Managed Tracts of the Balcones Canyonlands Preserve* is attached as Appendix P.
- Travis County initiated Texas Historical Commission review of cultural sites throughout the tract.
- Travis County coordinated efforts with American Youth Works to perform habitat restoration and trail maintenance.
- Travis County Natural Resources staff coordinated Jollyville Plateau salamander survey and monitoring efforts with City of Austin Watershed Protection and Development Review staff. Substrate composition, water quality parameters (temperature, pH, specific conductance, alkalinity and dissolved gasses), and population surveys were initiated. A report detailing these findings is presented attached in Appendix H.

*Lake Perspectives tract*

Travis County in FY1999 acquired the 124-acre Lake Perspectives tract. Management activities taking place in FY2006 consisted of:

- Regular patrols by Travis County BCP Rangers.
- Endangered species surveys, including intensive efforts on one 100-acre study plot for collection of long-term distribution and abundance data for the golden-cheeked warbler per the guidelines found in BCP Land Management Plan (BCP LMP) continued. Results of this data collection and monitoring are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season* report, attached as Appendix S.
- Travis County coordinated efforts with American Youth Works to perform habitat restoration and trail maintenance.
- Investigations to quantify and manage white-tailed deer populations continued. The *2006 Summary of Wildlife Management Activities on Travis County Managed Tracts of the Balcones Canyonlands Preserve* is attached as Appendix P.

*Nootsie Tract*

The Nootsie tract was acquired in FY05 and incorporated an additional 120-acres into Travis County's Jollyville Unit. Management activities included:

- Regular patrols by Travis County BCP Rangers.
- Renovation of a single-family home on this site has been completed and the facility has been converted to use as a field office and Preserve Headquarters for Travis County BCP staff. This facility is now the permanent office location for four full-time staff, Natural Resource Program interns, and County BCP Rangers.
- Assessment and control of non-native and invasive plant species continued. Efforts to control Chinaberry (*Melia azedarach)* and tree of heaven *(Ailanthus altissima)* populations were directed by Structural Pest Control Board licensed staff, and populations of other invasive and non-native species were recorded. A summary of vegetation monitoring and management activities in 2006 is presented in Appendix T.
- Travis County coordinated efforts with American Youth Works to perform habitat restoration and trail maintenance.
- Endangered species surveys and baseline data collection were initiated and are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season* report, attached as Appendix S.
- Investigations to quantify and manage white-tailed deer and feral hog populations continued. The *2006 Summary of Wildlife Management Activities on Travis County Managed Tracts of the Balcones Canyonlands Preserve* is attached as Appendix P.

*Romberg Tract*

The 40-acre Romberg tract has been a portion of Travis County's BCP land since the permit's inception in 1996. This parcel was available to the public through guided access for educational and outreach activities provided by Travis County BCP staff.

Habitat management activities in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Endangered species surveys are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season* report, attached as Appendix S.

*Stratton/Verandah*

Travis County acquired the 6-acre Stratton/Verandah parcel for the Preserve in August of 2004. Management of this tract in FY2006 consisted of:

- Regular patrols by Travis County BCP Rangers.
- Assessment and initiation of habitat restoration needs.
- Fencing and property boundary delineation continued.

*Texas System of Natural Laboratories Caves Tracts*

Travis County accepted in FY05 the fee simple land transfer of a total of six acres from the Texas System of Natural Laboratories, a non-profit research organization. This land consists of multiple parcels surrounding the openings of a number of important karst features. Management of these parcels included:

- Regular patrols by Travis County BCP Rangers.
- Baseline data and land use history was researched and recorded.
- Assessment and initiation of debris removal and habitat restoration needs.
- Fencing and property boundary delineation was initiated.
- Initial karst feature survey and baseline data reporting was initiated, as reported in the *Balcones Canyonlands Preserve Karst Management 2006 Annual Report*, attached as Appendix U.

*Tomen Grandview Hills Section 14, Lot 2*

This 35-acre parcel was acquired fee simple in FY2003. FY2006 Habitat management actions included:

- Regular patrols by Travis County BCP Rangers.
- Travis County coordinated efforts with American Youth Works to perform habitat restoration and trail maintenance.
- White tailed deer and feral hog population surveys were initiated and planning for management of these species was planned for FY2007.

- Endangered species surveys were completed and are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season* report, attached as Appendix S.

*Tomen Section 8*

The Tomen Section 8 parcel consists of a 24-acre conservation easement that was conveyed to Travis County in April of 2004. Management activities included:

- Regular patrols by Travis County BCP Rangers.
- Baseline data and land use history was researched and recorded.
- White tailed deer and feral hog population surveys were initiated and planning for management of these species was planned for FY2007.
- Black-capped vireo surveys and habitat manipulation efforts to restore nesting areas in this historically populated area continued, and is reported in the *Monitoring of the Black-capped Vireo, 2006 Field Season*, attached as Appendix R.

*Vireo Ridge tract*

Vireo Ridge was acquired in fee through multiple transactions in FY2000 and FY2001, and consists of 581 acres of GCWA and BCVI habitat. Management on Vireo Ridge in FY2006 consisted of:

- Regular patrols by Travis County BCP Rangers.
- Travis County coordinated efforts with American Youth Works to perform habitat restoration and trail maintenance.
- Black-capped vireo surveys and habitat manipulation efforts to restore nesting areas in this historically populated area continued as reported in the *Monitoring of the Black-capped Vireo, 2006 Field Season*, attached as Appendix R.
- Travis County staff trapped brown-headed cowbirds on the preserve, as well as on private property immediately adjacent to the Jollyville Unit. Investigations to quantify and manage populations of white-tailed deer and feral hogs continued. A summary of these activities is attached as Appendix P.
- White tailed deer browsing impacts within areas restored for Black-capped vireo habitat was assessed, and is reported in Appendix Q.
- Assessment and control of non-native and invasive plant species on this tract continued. Structural Pest Control Board licensed staff directed efforts to manage populations of Chinaberry (*Melia azedarach)* and heavenly bamboo (*Nandina domestica).* Appendix T summarizes vegetation monitoring and management activities on Travis County BCP tracts.

- White tailed deer and feral hog population surveys were initiated and planning for management of these species was planned for FY2007.
- Karst features were investigated, as summarized in the *Balcones Canyonlands Preserve Karst Management Report, 2006* found in Appendix U.

*Vista Point tract*

Travis County acquired the 490-acre Vista Point tract in FY2002. Habitat management on this tract in the last year included:

- Regular patrols by Travis County BCP Rangers.
- Travis County coordinated efforts with American Youth Works to perform habitat restoration and trail maintenance.
- Surface monitoring and investigations of protected karst features continued as summarized in the *Balcones Canyonlands Preserve Karst Management Report, 2006* found in Appendix U.
- Black-capped vireo surveys were performed and results are summarized in Travis County's *Monitoring of the Black-capped Vireo, 2006 Field Season,* attached as Appendix R.
- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season,* attached as Appendix S.
- Investigations to quantify and manage populations of white-tailed deer and feral hogs continued. A summary of these activities is attached as Appendix P.

NORTH LAKE AUSTIN UNIT

Travis County manages the Franzetti, Greenshores, Grey Mountain, and Hereford tracts located within the North Lake Austin Macrosite.

*Franzetti*

Travis County accepted transfer of a conservation easement from the National Fish and Wildlife Foundation in FY2005. This 54 acre tract contains habitat for golden-cheeked warblers.

- Regular patrols by Travis County BCP Rangers.
- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season,* attached as Appendix S.
- Efforts to complete a Land Management Plan Tier III document for this property were initiated. Staff expects to present a final draft to the USFWS in FY2007.

*Greenshores Conservation Easement*

A Conservation Easement referred to as Greenshores was conveyed to Travis County in accordance with the terms and conditions of USFWS 10 (a) permit # TE-074582-0 in April of 2004. This 52-acre parcel is located in the North Lake Austin Macrosite, and is adjacent to the City of Austin's Emma Long Park. Travis County actions on the Greenshores tract in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Efforts to complete a Land Management Plan Tier III document for this property continued. Staff expects to present a final draft to the USFWS in FY2007.
- Fencing to define and protect preserve boundaries was completed.
- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- Staff continued negotiations with the developer to finalize long-term protection efforts for an adjacent area slated for construction.
- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season*, attached as Appendix S.

*Grey Mountain*

Travis County accepted a Conservation Easement in accordance with the terms and conditions of USFWS 10 (a) permit # TE-037888-1 on May 9, 2006. This 25-acre parcel is located in the North Lake Austin Macrosite, and provides habitat for the golden-cheeked warbler. Travis County actions on the Grey Mountain tract in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Efforts to compile a Land Management Plan Tier III document were initiated. Staff expects to present a final draft to the USFWS in FY2007.
- Fencing to define and protect preserve boundaries was completed.
- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season*, attached as Appendix S.

*Hereford*

Travis County acquired the 10-acre Hereford tract in 2006.

- Regular patrols by Travis County BCP Rangers.

- Efforts to generate a Land Management Plan Tier III document for this property were initiated. Staff expects to present a final draft to the USFWS in FY2007.
- Endangered species surveys and baseline data collection were initiated and are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season* report, attached as Appendix S.

*Steiner Ranch*

The Preserve tracts of Steiner Ranch comprise 819 acres in five separate parcels managed by Travis County since FY2001. Though located within the North Lake Austin Macrosite and contiguous with other BCP lands, the acreage at Steiner Ranch has yet to be credited towards BCP land acquisition goals, as these lands are outside the original preserve acquisition boundaries established by the USFWS.

Conservation Easements on these tracts were transferred to Travis County as partial mitigation required by the USFWS for impacts resulting from the associated development. Under the terms of the Conservation Easement, the Steiner Ranch Master Association (SRMA) maintained access to a limited number of approved nature trails within the Preserve areas. The use of these trails is restricted to hiking, jogging, and nature viewing from maintained trails, and are reserved for the sole use of residents of the development. Access to remaining portions of these preserve tracts was available to the public through guided access for educational and outreach activities provided by Travis County BCP staff. Travis County Natural Resources provides consulting and reporting services to the landowner concerning wildlife management throughout the preserve.

The Steiner Ranch Unit is comprised of five tracts referred to as J-Canyon, L-Bend, Middle Section, the Vireo Management Area and North East. Management activities on these parcels included:

*J-Canyon tract*

- Regular patrols by Travis County BCP Rangers.
- Fencing and property boundary delineation continued.
- County Natural Resources and Law Enforcement staff provided Steiner Ranch Homeowners with guided tours through Preserve areas.
- Coordinated trail signage and trailhead gate installation.
- Coordinated habitat restoration efforts and installation of wildlife viewing areas.
- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.

- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season*, attached as Appendix S.

*L-Bend tract*

- Regular patrols by Travis County BCP Rangers.
- Travis County staff met with and reviewed power line and infrastructure maintenance activities performed by multiple utility providers.
- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- Coordinated trail signage and trailhead gate installation.
- Fencing and property boundary delineation continued.

*Middle Section tract*

- Regular patrols by Travis County BCP Rangers.
- Travis County staff met with and reviewed power line and infrastructure maintenance activities performed by multiple utility providers.
- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- Coordinated trail signage and trailhead gate installation.
- Fencing and property boundary delineation continued.

*Vireo Management Area tract*

- Regular patrols by Travis County BCP Rangers.
- Travis County staff met with and reviewed power line and infrastructure maintenance activities performed by multiple utility providers.
- Fencing and property boundary delineation continued.
- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- County staff coordinated trail signage and trailhead gate installation.
- Populations of Chinaberry (*Melia azedarach)* were cut and treated with a 1:5 garlon 4/Red River basal oil mix under the direction of Structural Pest Control Board licensed Natural Resources staff.
- Golden-cheeked warbler and black-capped vireo surveys were performed and results are summarized in Travis County's *Monitoring of the Black-capped Vireo, 2006 Field*

*Season* and the *Monitoring of the Golden-cheeked Warbler, 2006* reports, attached as Appendices R and S.

*North East tract*

- Regular patrols by Travis County BCP Rangers.
- Travis County staff met with and reviewed power line and infrastructure maintenance activities performed by multiple utility providers.
- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- Golden-cheeked warbler and surveys were performed and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler, 2006 Field Season* attached as Appendix S.
- Coordinated trail signage and trailhead gate installation.
- Fencing and property boundary delineation continued.

PEDERNALES RIVER MACROSITE

*Hamilton Pool Preserve*

Public uses permitted prior to Hamilton Pool Preserve's dedication as a portion of the BCP continued through FY2005. The 232-acre site located in the Pedernales Macrosite contains approximately 1.75 miles of maintained nature trails, and provides access to a popular swimming area located in a natural grotto. User fees are assessed, and public access to the Preserve is limited to day use only. Pets, fires, cooking, fishing, and collecting are all prohibited within the Preserve. BCP management at Hamilton Pool in FY2006 included:

- Regular patrols by Travis County BCP Rangers.
- Travis County Parks and Natural Resources staff actively engages school children and the public in education and outreach efforts related to endangered species and the BCP through guided tours and special opportunities throughout the year.
- A 100-acre study plot for collection of long-term distribution and abundance data for the golden-cheeked warbler was established by the BCP Land Management Plan (BCP LMP). Intensive data collection and monitoring on the study plot continued, and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season* report, attached as Appendix S.
- Canyon mock orange *(Philadelphus ernestii)*, one of the BCCP Permit's Species of Concern, is found at Hamilton Pool Preserve, and is monitored and protected in accordance with the federal permit. Monitoring highlights for this species are found in Appendix T.

- Brown-headed cowbird trapping continued at Hamilton Pool Preserve, and results are found in the *2006 Wildlife Management Summary for Travis County BCP Lands*, attached as Appendix P.

The Hamilton Pool Preserve population of canyon mock orange, a species of concern covered under the Permit, continues to be protected and monitored.

SOUTH LAKE AUSTIN UNIT

*Medway Ranch*

Medway Ranch consists of 345 acres contiguous with the City of Austin's Double J&T Preserve located in the South Lake Austin Macrosite. Management activities on Medway Ranch in FY2005 consisted of:

- Regular patrols by Travis County BCP Rangers.
- Efforts to create a Land Management Plan Tier III document for this tract were initiated. Staff expects to present a final draft to the USFWS in FY2007.
- Public outreach efforts continued with the surrounding landowners and users of the unauthorized trails located throughout the tract.
- Fencing and property boundary delineation continued.
- Endangered species surveys and baseline data collection were initiated and are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler 2006 Field Season* report, attached as Appendix S.

WEST AUSTIN MACROSITE

*Wild Basin Wilderness Preserve*

Wild Basin Wilderness Preserve is owned by Travis County and managed through contractual agreement by the Committee for Wild Basin Wilderness, Inc. Travis County Parks and Natural Resources supports operation of the 227-acre Preserve through staff and financial assistance. Details concerning the management of Wild Basin Wilderness Preserve are reported below under the heading devoted to The Committee for Wild Basin Wilderness, Inc. Surveys of golden-cheeked warblers from this tract are presented in the *Wild Basin Wilderness Preserve Golden-cheeked Warbler Survey 2006 Season* report, presented as Appendix N.

*Pace Bend Park*

Though not considered part of the BCP, Travis County's Pace Bend Park hosts a population of Texabama croton (*Croton alabamensis var. texensis*), one of the BCCP Permit's Species of Concern. Under the terms and conditions of the BCCP, Travis County agreed to monitor and manage this species wherever it occurs on Travis County

owned or managed lands. County BCP staff therefore, regularly performs vegetation monitoring and wildlife management activities to protect this unique woody shrub at Pace Bend.

- Appendix T summarizes vegetation monitoring and management activities for Texabama croton in FY2006.
- White-tailed deer management was initiated at Pace Bend Park, and is reported in the Summary of Wildlife Management Activities attached as Appendix P.

*Law Enforcement Summary*

Management of Preserve lands to maintain and increase populations of endangered species in a rapidly developing urban interface presents unique challenges for public agencies. Many BCP tracts present significant management challenges ranging from illegal trespass including pedestrian, mountain bike, all-terrain vehicle, and motorcycle traffic, to illegal dumping to poaching of native wildlife on preserve lands. In addition, some BCP tracts contain important archaeological sites that require additional monitoring and protection.

To protect the significant natural and cultural resources on County owned and managed preserve lands Travis County has assigned two Park Rangers to the BCP. Travis County Park Rangers are commissioned Texas Peace Officers operating as Deputy Sheriffs under the Travis County Sheriff's Office (TCSO) and are certified by the Texas Department of State Health Services as Emergency Medical Technicians. Their primary duty is to provide the law enforcement component for the effective management of all county owned or managed BCP properties. In FY2005 two additional Park Rangers underwent training enabling them to provide assistance as necessary with resource protection and law enforcement activities on the Preserve, and two more Rangers underwent this training in FY 2006. These supplemental BCP Law Enforcement officers spent approximately 5-10% of their FY2005 and FY2006 scheduled patrol time completing training or providing protection on County BCP lands.

Trespass onto posted preserve lands is the most common concern addressed by Travis County BCP Rangers. When trespassers are apprehended on BCP property they are identified per state law and TCSO policy, questioned regarding their activities, issued a criminal trespass warning and escorted from the property. In FY2006, 12 TCSO Field Identification citations were issued to trespassers confronted on Travis County BCP property. Rapidly developing suburban neighborhoods surrounding many BCP locations will likely generate additional trespass pressure on preserve tracts.

Rangers are responsible for boundary patrols and quarterly inspections of County BCP tracts. Patrols are conducted to provide a law enforcement presence to help minimize illegal activities as well as to assess the condition of County property such as boundary fencing. Rangers are also trained to recognize and respond to hazardous and illegally dumped materials, and regularly cooperate with local, state and federal agencies to appropriately address the threats these materials pose to health and human safety as well as to the natural environment. Inspections encompass surveys of facilities, trails, invasive and non-native species and management needs, trespass issues and other areas that impact the overall condition of preserve tracts. Cooperation with Texas Parks and Wildlife Department Game Wardens has led to the apprehension of poachers illegally taking game animals within the boundaries of the County's preserve lands as well as on adjoining private properties.

Travis County BCP Rangers assist with or lead ongoing education programs conducted by BCP staff, assist with the monitoring and removal of non-native plant and animal species, monitor and protect cultural resource sites, assist with trail mapping and provide support for Travis County Natural Resources field staff. The BCP Rangers have provided assistance in several incidents on City of Austin and LCRA BCP properties and have assisted neighboring landowners and individual BCP land managers with trespass and criminal mischief concerns on adjoining properties. BCP Rangers have also secured physical addresses for the gates to all properties, installed appropriate signage at those properties, and have produced and distributed address maps and lists to emergency response agencies in an effort to facilitate interagency cooperation and reduce response times to incidents within the BCP. In addition, BCP Rangers, along with other Travis County Park Rangers, have taken a lead role in White-Tailed deer management on preserve and park properties.

*Cultural Resources*

As a political subdivision of the State of Texas, Travis County is obligated to comply with the Antiquities Code of Texas to locate, protect and preserve all cultural resource sites on properties within the jurisdiction and management of the County. Travis County Natural Resources is aware of a number of prehistoric and multi-component archaeological sites located on County owned or managed preserve lands. These sites have been recorded with the Texas Historical Commission, and are under review to determine in any merit designation as State Archaeological Landmark status. The Texas Archaeological Research Laboratory located at the University of Texas maintains maps

showing locations of identified archaeological sites throughout the BCP. These locations are not identified here, as Section 191.004 of the Antiquities Code of Texas prohibits revealing archaeological site locations in public documents (U. S. Department of the Interior, U. S. Fish and Wildlife Service, 1996).

In order to better protect the important cultural resources known from Balcones Canyonlands Preserve tracts, Travis County field staff have undergone training pertaining to the identification and field assessment of lithic (rock) artifacts well as historic artifacts associated with 19th and 20th century farming and ranching practices most likely to be encountered in Central Texas. Known cultural sites are regularly monitored for illegal activities such as evidence of surface collecting of artifacts or unauthorized excavation. Known cultural sites are currently being mapped with global positioning satellite technology and mapped on USGS 7.5-minute topographic maps. This data has been transmitted to the Texas Historical Commission and maintained by Travis County Natural Resources staff. Cultural features located on BCP properties are reviewed for possible protection through the National Register of Historic Places, Recorded Texas Historic Landmark, or State Archaeological Landmark designations. Currently, no known features meet the criteria for inclusion under these designations.

Travis County's Balcones Canyonlands Preserve education and outreach efforts in FY2006 included:

- Interpretation of research data and information about the BCP and endangered species for neighborhoods and homeowner's associations, the general public, and interested groups through preserve tours, workshops, special presentations and exhibits.
- Travis County makes a special effort to reach out to schoolchildren living in the vicinity of Preserve properties. Participation in activities such as Elementary and Secondary school science, environment and nature clubs, "Austin Science Fun Day", and extra-curricular student programs such as summer camps helps to spread the word about the BCCP and protecting the unique native plants and animals found in our community.
- Numerous opportunities were provided for college and university researchers and field classes to utilize the BCP as a living classroom. Texas State University at San Marcos and the University of Texas had projects or fieldwork on Travis County BCP lands in FY06.
- The County regularly provides internships and graduate study opportunities for college students working in the field of natural resources research and management. A Masters thesis entitled "Foraging Behavior of Black-capped Vireos" is currently

being finalized by Texas State University Graduate Student Dawn R. Houston, and is described in Appendix K.

- Continuing data collection and scientific study of the species protected by the BCCP, as well as impacts of land management practices. Research data is presented for interested groups and at professional and scientific conferences, such as the Texas Land Trust Council Annual Meeting, the Society of Ecological Restoration and the Continuing Legal Education Conference on the Endangered Species Act and Habitat Conservation Planning.
- County staff assisted the Conservation Biology Institute with a thorough review of the administration of the BCCP for their "Comparative Review of Governance Structures for Ecosystem Management" report prepared for the San Diego Foundation. The document is attached as Appendix J.
- Participation at community events throughout the area, such as the Texas Parks and Wildlife Department's annual "Wildlife Expo" and the annual "Austin Karst Festival and Western Oaks Karst Preserve Open House", and conferences for groups with mitigation needs such as real estate agencies and builders associations.
- Travis County Natural Resources staff works closely with interested clubs, organizations, and youth-at-risk programs to educate and inform while also providing valuable hands-on work experiences on the Preserve.
- Informing, evaluating, and problem-solving issues such as alternate mitigation opportunities, acquisition strategies, and land management planning with local landowners, developers, real estate associations, and scientific communities.
- The County works closely with partner agencies to address common safety concerns, and has worked to familiarize emergency responders with Preserve tracts within their jurisdictions.
- The County utilizes various media opportunities to inform the public about issues related to the Preserves, such as purchase of new Preserve lands, receipt of federal HCP land acquisition grants, and the negative impact of non-native wildlife on ecosystem health.
- Staff provided guided tours of Preserve lands for the BCCP Citizens Advisory Committee, Home Owners Associations and other interested groups.
- County Staff provided presentations for the University of Texas Law School, the Greater Austin Chamber of Commerce, the Home Builders Association of Greater Austin and others.
- New content was created and posted to the Travis County website to provide additional public resources related to the BCCP, including expanded and updated

participation information, frequently asked questions, species protection, access issues, and contact information for BCP partners and the USFWS.

- The digital video entitled "The Balcones Canyonlands Conservation Plan: A Community-Based Solution" is currently available to the public through the Austin Public Library, the Austin History Center, as well as on two local cable television stations (Austin Time-Warner TCTV Channel 17 and City of Austin TV Channel 6). Clips from the documentary are available in streaming video format on the Travis County website.
- Information packets including letters of support were created to demonstrate widespread public endorsement of the BCCP and the USFWS Habitat Conservation Plan Land Acquisition Assistance Program.
- County Staff continued finalizing revisions of the BCP Land Management Plan, and anticipates submitting a final draft to the BCCP Coordinating Committee and the USFWS in mid-FY2007.

**The Lower Colorado River Authority**

Management activities for the three LCRA preserves continued to focus on natural resource research, access management, and stewardship promotion. Additionally, this FY LCRA has begun work on a previous habitat restoration project.

*Westcave*

- LCRA staff did not conduct bird surveys this year at Westcave. Staff needs were greater elsewhere and we have many years of consistent population data. We plan on surveying in 2007.

- Preserve staff hosted 6756 students, teachers, tourists, researchers, and nature-enthusiasts, and gave 447 programs.

*McGregor*

- Golden-cheeked warbler surveys were conducted at McGregor by temporary staff biologists this year.

- Deer harvest was conducted at McGregor this year. Two deer were taken off the property by lethal means.

- LCRA staff continued to work with the Comanche Trail Community Association to promote local support of land management, animal management, and stewardship

efforts on the preserve. The permit renewal training was held October 4 and 7, 2006 for new or returning CTCA McGregor Good Neighbor Program permittees. There are currently 22 permitted McGregor Good Neighbors. The active participation of the permittees continues to be an asset to preserve management. Individuals notify LCRA staff about trail conditions, access concerns, and general preserve status, as well as make suggestions for additional cooperative efforts between the CTCA and the LCRA. This year, several new landowners (now building homes) will be joining the program to learn about the BCCP preserve system "in their backyards."

- LCRA staff continued to conduct routine property surveys to identify and address maintenance needs and access issues. Activities included walking the preserve's perimeter, mending small sections of fence, and installing perimeter signs at strategic locations to discourage trespass. One letter regarding trespass was issued to an adjacent property owner.

*Wheless*

- Golden-cheeked warbler surveys were conducted at Wheless by temporary staff biologists this year (See Appendix M).

- Biologists from the City of Austin (COA) surveyed Jollyville salamanders at Long Hollow this spring and summer. The spring was unfortunately not flowing for most of the season. One salamander was collected for the COA captive breeding program. A chytrid fungus study was also conducted by COA staff as well as two genetics studies (using samples taken for the chytrid research) by Master's degree students.

- LCRA staff continued to conduct routine property surveys to identify and address maintenance needs and access issues. Activities included walking the preserve's perimeter, mending small sections of fence, and installing perimeter signs at strategic locations to discourage trespass.

- Approximately 104.5 acres in the northern part of the study area is currently being managed to create BCVI habitat. It was initially treated in January and February 2002, using a flail mower to remove most woody vegetation. Vegetation sampling was conducted this summer and a burn is planned for this winter.

- A general vegetation survey was performed by staff biologists, including locating rare orchids.

MONITORING HIGHLIGHTS

LCRA temporary staff performed surveys at McGregor and Wheless Preserves. Survey style followed COAs enumeration technique. Presence of females, nesting activity, and juvenile disbursement were noted as encountered. Occurrences were mapped with a GPS unit. Following are brief synopses of survey results.

*McGregor*

Eighteen visits totaling over 115 hours were spent surveying for Golden-cheeked warblers at McGregor Preserve. At least 12 and possibly 15 males were observed. No females but two sets of fledglings were also observed. This number is down from last year (See Appendix L).

*Wheless*

Forty-five visits totaling over 226 hours were spent surveying for Golden-cheeked warblers at Wheless Preserve. At least 93 and possibly 105 males were observed. Females were observed on 19 occasions, although never with young. Fledglings were observed on seven occasions with males (See Appendix M).

**The Nature Conservancy of Texas**

*Barton Creek Habitat Preserve*

SCIENCE/STEWARDSHIP

This spring, we conducted annual surveys of the Golden-cheeked Warblers (GCWA) and Black-Capped Vireos (BCVI) to determine population densities. We used point-counts for GCWA and direct observation for BCVI. Brown-headed cowbirds were actively trapped this year in an effort to help out nesting success of the BCVI and GCWA.

The GCWA data collected is currently being analyzed by Conservancy scientists. No BCVI were observed on the preserve this spring, however only two were seen for the 2005 surveys and their absence is not alarming. Conservancy scientists set up monitoring locations to start surveying BCVI with point-counts starting in the spring of 2007.

Hunting has also been continued on the preserve to manage the white-tailed deer population in an effort to reduce browse and increase recruitment of Texas Oaks.

Austin Youth River Watch monitored the water quality of Barton Creek at the preserve again this year. No anomalies were found.

The Ladybird Johnson Wildflower Center also collected seeds on the preserve for the Millennium Seeds Bank Project.

NRCS conducted surveys on the preserve looking for the exotic Asian gypsy moth after a specimen was found in Travis County in March of 2006.

Due to drought conditions and numerous wildfires across the state, we were the unable to conduct prescribed burns in early 2006. Currently, the preserve has 5 areas totaling approximately 350 acres ready to conduct a prescribed fire to restore or maintain BCV habitat.

EDUCATION/OUTREACH/VOLUNTEERS

We have had numerous groups volunteering at the preserve over the past year. Projects included trash pickup along the highway frontage, fence removal, trail maintenance/ extension, bird surveys, habitat management and vegetation surveys.

We had a total of 444 volunteer hours and approximately 453 people at the preserve for volunteering, educational purposes, and research.

**The City of Lakeway**

*Schramm Ranch*

The City of Lakeway's written report submitted to comply with the terms of USFWS permit #PRT-812696 is attached as Appendix I. A Golden-cheeked warbler Survey update for this property is attached as appendix N.

**Travis Audubon Society**

*Baker Sanctuary*

Access and trail maintenance

- The Sanctuary opened late this year on March 29th due the danger of wildfire caused by the drought. The Sanctuary was closed on October 22nd, at which time the gates were locked and the Sanctuary Steward, John Wilcox, posted closure notices.
- The annual Open House scheduled was cancelled due to the threat of wildfire caused by the drought and was rescheduled by the TAS Board for May 6th. This Open House was also cancelled again due to wet trails and slick rocks that presented health-safety issues for our visitors.
- John Wilcox shoveled, hauled and spread 16,000 pounds of road base in the first phase of filling in eroded places on the trails, service and hunter's access roads. I also

trimmed low hanging and encroaching brush from 6.61 miles of trails, access and service roads and hunter's shooting alleys.

- During the 2006 visitor season, the Sanctuary had 92 registered visitors of whom 43 % were national or local chapter members. Visitation to the Sanctuary was down because of our late opening due to the persistent danger from wild fire.
- The construction on the Jackie Arnold Education Center (JAEC) at the Baker Sanctuary has begun and the contractor poured the slab on October 20th. The structural steel was delivered to the site on November 6th and the stone was delivered on November 17th. The project is scheduled for completion prior to Golden-cheeked Warbler nesting season, which begins on March 1st. John Wilcox bought and had delivered 16 tons of crushed granite for landscaping trails and handicapped parking at the JAEC.

BOUNDARY CONTROLL

- John Wilcox monitored the Sanctuary boundaries and painted the fence posts on the fence on both sides of Lime Creek Road, from boundary to boundary with purple paint (Sec. 30.05. Criminal Trespass Law).
- TAS installed 6400 feet of high fence line along our western and northern boundaries. Work on installing the new fence was completed on February 28th, 2006. John Wilcox put up 36 "No Trespassing" signs and maintained the new fence line.

GENERAL MAINTENANCE

- John Wilcox picked up trash on the Sanctuary right-of-way 14 times.
- The Sanctuary Stewards called Travis County work crews out 10 times to pick up trash dumped on the right-of-way,
- The Sanctuary Stewards hauled 200 bags of trash to the Travis County Solid Waste Transfer Station.
- John Wilcox mowed and trimmed the Headquarters Area, Parking Lot and around the Baker Cabin eight times and continued cleaning up around the Baker Cabin.
- John Wilcox hauled trash out of the woods to the Travis County Solid Waste Transfer Station and repaired and maintained Sanctuary equipment.
- John Wilcox contracted to have 36 tons of trash hauled away from the site of the Jackie Arnold Education Center at the Baker Sanctuary.

PROBLEM ANIMAL CONTROL

- During the 2006-2007 WTD season, John Wilcox managed 7 deer hunting leases for gun hunters. As of January 21, 2007, 13 deer (5 bucks three points or more, 2 spike

bucks and 6 antlerless deer) were taken. All hunters on the Sanctuary filled out the TAS Hunting Application and signed off on the TAS Liability, Indemnity and Release form as well as the TAS Hunting Regulations.

- Isolated feral hog activity has been observed, but feral hogs have not been a problem at the TAS-Baker Sanctuary during 2006.
- John Wilcox trapped 16 cowbirds in 2006.

ENDANGERED SPECIES

- TAS member and graduate student Cindy Sperry surveyed the TAS-BS 100 acre GCW plot in 2006. Based on compiled observations, including counter-singing and the presence of females and fledglings, it appears that at least 22 territories were established completely within the plot boundaries and 4 more territories occupied the edges of the plot. For nineteen of the 22 in-plot territories (and all 4 edge territories), paring success was indicated by presence of a female and/or a male tending $\geq$ 1 fledgling. At least eleven in-plot territories (and 2 edge) had at least 1 successful fledgling. A total of 14 fledglings were confirmed within the plot and 3 more in the edge territories. A total of 47 bird species were identified in or near the 100-acre plot during the spring 2006 surveys. Brown-headed Cowbirds were detected in or near the 100-acre plot during 5 surveys but no evidence of brood parasitism was found.

CULTURAL RESOURCES

- No activity occurred this year regarding cultural resources.

RESEARCH

- Lisa O'Donnell (City of Austin Watershed Protection and Development Review Department) and John Wilcox conducted a Jollyville Plateau Salamander (JPS) survey on April 11, 2006. Low flow from the Baker Spring was observed and no salamanders were found
- Lisa O'Donnell, Nathan Parker and John Wilcox conducted a Jollyville Plateau Salamander survey on May 18, 2006. Low flow from the Baker Spring was encountered and no JPS were found.
- *Due to the ongoing drought, the Baker Springs ceased flowing in June 2006.*
- On August 25th, Lisa O'Donnell and Laura Zebehazy (Laura is with Travis County) visited the Sanctuary to observe the conditions at the Baker Springs.

**The Committee for Wild Basin Wilderness, Inc.**

*Wild Basin Wilderness Preserve*

PROGRAMS

- In 2006 Wild Basin offered a variety of education programs, including guided school tours, guided preschool programs, an outreach program to schools, and an after school program. Almost 5,000 students attended education programs; and over 600 volunteer hours were donated to the cause. Thanks to a Community Giving Day grant from Whole Foods Market, scholarships were offered to economically disadvantaged schools in fall 2006 for all school programs.
- Public programs included family events, a children's summer camp, guided weekend hikes, and weekend and evening programs. Approximately 900 adults and children attended public programs, with 250 hours of volunteer service donated. New programs for 2006 included quarterly Family Trail Days and periodic K-12 educator workshops.

INTERPRETATION

The self-guided trail map of the preserve was reviewed and refined for interpretive message to create meaningful visitor experiences. Two self-guided interpretive hikes cover 2.5 miles of hiking trails. New trail markers, constructed of native juniper posts recycled from trail maintenance work, were selected for their durability and nativity. Program Manager updated Bird Checklist for first time since 1987.

VISITORS

Approximately 3,700 self-guided visitors, adults and children, visited the preserve during 2006.

ENDANGERED SPECIES AND NEW BIRD SPECIES

- GCWA Survey results: 79 hours [47 from staff; 32 from PBS&J Staff Ecologist, whose report is attached as appendix N] yielded a Wild Basin record number of 11 adults and 4 fledglings surveyed by direct sight. This potentially represents five or six pairs of adult GCWA. See map attached as appendix N documenting historical GCWA sightings from 1997 to the present. Have not rerouted trails, increased programs or done anything in any way to bring or increase traffic anywhere near documented breeding/fledgling areas in Preserve.
- Raven is new year-round bird species sighted in Preserve.

SPECIES OF CONCERN AND TRAIL MAINTENANCE

17 Texas Madrone trees now recorded in Preserve. This may be easternmost documented presence of Texas Madrone in Texas.
With Travis County Natural Resources guidance and assistance, began restoration of Upland Savanna habitat in and around Environmental Education Center (EEC).
Under supervision of Travis County Natural Resources, new fencing installed on entire southern boundary of Preserve.
Our 2-½ miles of trails received regular and routine maintenance each month of 2006. This work included volunteers donating nearly 1000 hours of time to install trail bars, check dams, reinforced steps and to remove non-native invasive plants.

COMMUNITY RELATIONS
Neighbors of Wild Basin attended a Fire Suppression & Wildfire Workshop held in October 2006, featuring presentations from Texas Forest Service, City of West Lake Hills Fire Department, and City of Austin Water Utility Wildland Conservation Division. Fire suppression activities continued and expanded around EEC and driveway.

WATER QUALITY MONITORING
Together with Colorado River Watch Network's Austin Youth River Watch, regular, bi-monthly water quality monitoring at one site in Preserve began June 2006.

**Copies of research or investigative reports prepared during FY06**

City of Austin 2006 Golden-cheeked Warbler (*Dendroica chrysoparia)* and Black-capped Vireo (*Vireo atricapilla)* Monitoring Program. City of Austin Water Utility Wildland Conservation Division, Balcones Canyonlands Preserve Program. See Appendix F.

City of Austin. 2006. Outreach Program. See Appendix G

City of Austin. 2006. Summary of Jollyville Plateau Salamander Data (1997-2006) and Status. See Appendix H.

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Houston, D. R. 2006. Foraging Behavior of the Black Capped Vireo. Thesis Status Report. See Appendix K.

Lower Colorado River Authority. 2006. 2006 Survey Report McGreggor Preserve, Travis County. See Appendix L.

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Travis County Natural Resources. 2006. Assessment of White-tailed Deer (*Odocoilius virginiaus*) Impacts on the Woody Plant Community in the Vireo Ridge Restoration Area of the Jollyville Unit of the BCP FY2006. See Appendix Q.

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