BALCONES CANYONLANDS CONSERVATION PLAN

Annual Report
FY 2009
(October 1, 2008 – Sept. 30, 2009)

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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 a minimum of 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 for 35 karst features supporting populations of six endangered karst invertebrates and an additional 27 features known to harbor 25 karst 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. The Permit Holders have initiated

discussions with other Municipalities and other stakeholders within the permit area about joining the effort to achieve the goals of the BCCP through Managing Partner Agreements, and hope to forge new agreements securing protections for additional lands within the BCP.

A number of private landowners also manage habitat within the 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 USFWS.

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 FY09 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 FY09 is attached as Appendix B.

Mitigation Credit Balance

The City of Austin's BCP 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.

Table 2. Infrastructure projects mitigated through the use of mitigation credits during FY09 by participating agency**.**

City of Austin	
Starting City of Austin Balance	**11,536.07 acres**
New preserve additions (credits) – Vaught Ranch	49.86
Spicewood Springs Pump Station Renovation	.1
Northwest C Water Mains	2.1
Allen Road Pump Station	.2
Barclay Road Pump Station - AWU	.8
Remaining Mitigation Credits	***11,582.73 acres***
Travis County	
Starting Travis County Balance	2736.1 acres
Crosswind ROW Improvements	.1
New preserve additions (credits)	302
Remaining Mitigation Credits	***3038 acres***

Table 2. continued:	
Lower Colorado River Authority (LCRA)	
Starting LCRA Balance	**2,490.6 acres**
Gloster Bend Clearing	2.2
TbarM Camp Project	.1
TbarM Pole Barn Expansion.	.1
Remaining Mitigation Credits	***2,488.2 acres***

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. During FY09, two Participation Certificates were issued (Table 3), one for commercial use and one under the City of Austin managed Infrastructure process.

Table 3. FY09 Participation Certificate Summary.

Application #	**Date**	**Name**	**Category**	**Amount Paid**
#0617	12/05/08	R. Turner	Commercial	$2,750.00
#0629	6/17/09	Brushy Creek Regional Utility Authority	Infrastructure	$123,900.00

Funds Collected through Participation Certificate and USFWS directed mitigation fees

A total of $126,650.00 was collected through the sale of Participation Certificates in FY09. These funds are disbursed between the Permit Holders on a quarterly basis. The BCCP 10(a) Permit authorizes 26,753 acres of take for golden-cheeked warbler, 1000 acres for black-capped vireo, and 38,108 acres for karst. Table 4 below summarizes the acreage encompassed by Participation Certificate sales or authorized "take" and the associated acreage of fee zones they cover within that total cumulative acreage.

Table 4. Summary of BCCP Acres "Taken"), 1996 to 2009

Type	**FY09 Acreage Total**	**Cumulative Acreage Total**	**Fee Zone Acreage**			
			GCWA Zone 1	**GCWA Zone 2**	**BCVI**	**Karst Zones 1&2**
PCs	53	11,248	5,054	3,614	358	935

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 as the method Travis County agreed to use for funding land acquisition and management (City of Austin and Travis County, 1995) generated $7,955,470 for Travis County land acquisition and management projects in FY09.

Funds Expended for Land Acquisition

Since the inception of the BCCP, the Permit Holders have competed for USFWS Habitat Conservation Plan grants each year. To date, ten Land Acquisition Assistance Program awards totaling $79,005,059 have been completed or are in progress.

Table 5. 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	$14,362,500	$4,787,500	$19,150,000	City of Austin, Travis County
2002	$10,000,000	$3,333,333	$13,333,333	Travis County
2003	$4,993,794	$1,664,598	$6,658,392	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
2007	$5,742,500	$1,914,167	$7,656,667	Travis County
2008	$5,250,000	$1,750,000	$7,000,000	Travis County
2009	0	0	0	NA
Total	**$59,253,794**	**$19,751,265**	**$79,005,059**	

In FY09, Travis County acquired 300 acres (Lucas and Purcell GDF tracts) using federal grant funds with total federal and Travis County funds totaling $36,100,000. In addition to fee simple acquisitions assisted with grant funds, Travis County also actively pursues fee simple purchases and alternative protection strategies such as conservation easements, donations, 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. Travis County expended a total of $411,250 on land acquisition activities and secured 24 acres through these non-grant funded protection strategies in FY09. These grant and non-grant expenditures are broken down by tract in Table 6.

Travis County continues to pursue adding lands to the BCP to meet the goals established by the Permit. As of the end of the fiscal year Travis County manages 4,627 acres of land within the BCP and also managed 819 acres in the Steiner Ranch Preserve tract that has yet to be counted. The City of Austin owns and manages 13,584 acres of land within the BCP. For a detailed accounting of all BCP tracts assembled see Appendix C.

Table 6. Travis County FY09 BCP Land Acquisitions.

Tract	Date Acquired	Acreage	Total Expenditures*
Gann	5-14-09	16	$411,250
Lucas	11-28-08	278	$29,334,331
GDF/Purcell – Cuevas East	12-18-08	22	$7,590,419
Woody Hollow	12-2-08	8	NA - Donation

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

A BCP Completion Task Group comprised of members of Travis County's Planning and Budget Office, TNR Natural Resources, the County Auditor's Office, the County Attorney's Office as well as other BCP Partners has been meeting since 2007 and met regularly in FY09 to analyze BCP completion strategies and to develop a set of land acquisition financing recommendations for Travis County Commissioners Court and the BCCP Coordinating Committee. BCCP staff anticipates that this Task Group will brief the Commissioners Court and the BCCP Coordinating Committee on these issues and provide recommendations in FY10.

Funds Expended for Operations and Maintenance

The City of Austin spent a total of $1,137,093 for FY09 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 (Austin Water Utility) 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 AWU on the two BCP-designated tracts that it owns and manages. Those expenditures cannot be readily determined from their program budgets.

Table 7. Annual FY08 and FY09 BCP budgets for Permit Holders, the Managing Partner, and cooperating entities with summary of total budgets since plan inception.

BCP Partner	FY2008	FY2009	Total Budget: 1996 to Present
City of Austin	$1,245,000	$1,137,093	$8,912,530
Travis County	$569,013	$850,607	$5,247,233
LCRA	$85,000	$215,507	$1, 338,579
TNCTX	$10,000	$10,000	$922,000
TAS	$18,425	$18,800	$208,826
TOTALS	**$1,927,438**	**$2,232,007**	**$16,629,168**

The Travis County Natural Resources budget for the BCP Program in FY09 was $850,607. This total includes Travis County General Fund expenditures and funds negotiated to support ongoing operations and maintenance of County managed Conservation Easements, but does not include administrative, legal, law enforcement support or non-habitat-related operations and maintenance provided by other Travis County Departments. It does not include funds associated with land acquisition, appraisals, surveys or environmental site assessments. This figure also 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.

Updated Map of Lands Dedicated to the Balcones Canyonlands Preserve

With the addition in FY09 of 324 acres to the Preserve, 28,513 of the 30,428 acres of black-capped vireo and golden-cheeked warbler habitat required by the Permit (94%)

have been assembled by the Permit Holders with the assistance of cooperating landowners and entities. Additionally, 45 of the 62 caves identified to be protected in the permit are afforded some level of protection. 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 C2 and C3, respectively.

Public Use and Habitat Monitoring and Management Activities Occurring within the Balcones Canyonlands Preserve

CITY OF AUSTIN

The following section lists the public use, habitat monitoring and management activities on City of Austin land counted as part of the BCP. The City of Austin's BCP tracts are managed by 2 managing entities (see Table 8) with different management responsibilities for each entity.

Table 8. City of Austin BCP Properties - Management Status

Tract	Primary Management Responsibility	Acreage
Upper Bull Creek Unit (Franklin, Hanks, Lanier, COA Canyon Creek plus MUD tracts, Gardens at Bull Creek, Bowman, and former WTP 4 "entire tract")	AWU/BCP	1146.51
Middle Bull Creek Unit (Ivanhoe, Beard Trust)	AWU/BCP	996.71
Lower Bull Creek Unit (Jester, Forest Ridge, 3M, Hilltop, Gibson/Nott, Hiller, Kruger)	AWU/BCP	1090.98
Lime Creek (inc. 100 acres of Austin-Simon, Ltd.)	AWU/BCP	586.70
Parke West, Coldwater/Cowfork, Long Canyon, Vaught Ranch	AWU/BCP	1393.86
Cortaña	AWU/BCP	1751.95
Double J&T	AWU/BCP	1730.00
Reicher Ranch	AWU/BCP	819.74
Bohls Ranch	AWU/BCP	450.14
Bohls II	AWU/BCP/TNC*	18.81
Sansom	AWU/BCP	13.00
Senna Hills	AWU/BCP	35.00
Schramm Ranch	AWU/BCP	100.63
Vireo Research Area	AWU/BCP	214.00
Ullrich Water Treatment Plant	AWU/BCP	18.00
	AWU/BCP Subtotal	**10,366.03**
Bull Creek District Park, Bull Creek Greenbelt	PARD/BCP**	129.48

St. Edward's Park	PARD/BCP	50
Stillhouse Hollow	PARD/BCP	8
Barrow Preserve	PARD/BCP	8
Emma Long Metro Park	PARD/BCP	950
Commons Ford Park	PARD/BCP	115
Barton Creek Wilderness Area	PARD/BCP	1075.24
Barton Creek Greenbelt	PARD/BCP	814.64
Friesenhahn	PARD/BCP	62
Mt. Bonnell	PARD/BCP	6
	PARD/BCP Dual-Managed Subtotal	**3,218.36**
	TOTAL ACREAGE	**13,584.39**

******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.

City of Austin Oak Wilt Surveys

City of Austin BCP staff conducted aerial reconnaissance for oak wilt via helicopter June 15-18. The surveys were coordinated with the Austin Police Department for the helicopter and pilot, which reduced the cost by 80 percent. The entire COA BCP was covered, as well as adjacent BCP partners' tracts, including Barton Creek Habitat Preserve, Lehmann, Ribelin, Vireo Ridge, Nootsie, Medway, Steiner Ranch, Baker Sanctuary, Wild Basin, Concordia, and Bright Leaf. Observations on adjacent private residences were also noted. Following the aerial reconnaissance, BCP staff conducted ground truth surveys to verify oak wilt centers. Ground-truthing was problematic in 2009, since it was difficult to distinguish symptoms of oak wilt from stress due to the prolonged drought. To date, only one new one oak wilt center has been confirmed on City of Austin BCP (Hanks tract). Some potentially symptomatic trees were observed on Lehmann and Nootsie, and BCP staff will follow up on this early next summer when the symptoms become visible again. Fortunately, several trees with suspected oak wilt identified during the 2007 surveys were not showing symptomatic signs of infection in 2009.

City of Austin White-tailed Deer Surveys

City of Austin BCP staff conducted spotlight surveys of white-tailed deer from July 20-August 15 on the Bull Creek (Upper Bull Creek and adjacent neighborhood), South Lake Austin, North Lake Austin (Cortaña), and Cypress Creek (Lime Creek) macrosites. Three spotlight surveys were conducted per route in each macrosite. Deer densities

averaged 1 deer/8.8 acres in Upper Bull Creek, 1 deer/2 acres in the neighborhood adjacent to the Upper Bull Creek preserves, 1 deer/10.4 acres in South Lake Austin, 1 deer/23.3 acres in North Lake Austin (Cortaña), and 1 deer/36.8 acres in Cypress Creek (Lime Creek). Deer culling is conducted in these areas during the fall and winter months under Texas Parks and Wildlife Department (TPWD) Managed Lands Deer Permits (MLDP).

In addition, Orion Research and Management Services conducted spotlight counts in and near Emma Long Metropolitan Park on September 6, 13, and 20 and averaged 1 deer/2.68 acres. Orion's report concludes "The observed deer density of 2.68 acres per deer is unsustainably high. The Emma Long Park property continues to be a source of uncontrolled growth, as the City has so far been unsuccessful in reducing the local population. Most deer observed at close range were in fair to poor condition, and as noted elsewhere, only 1 doe in 5 produced a fawn. Antler production on bucks is poor, as a result of inadequate nutrition during the spring and summer. A browse line is evident on vegetation, even juniper, along the route." BCP staff are currently unable to conduct deer management activities on Emma Long and other areas that are have unlimited public access. This includes the Baton Creek macrosite, North Lake Austin macrosite (except for Cortaña), and lower Bull Creek.

City of Austin Monitoring and Research Conducted

City of Austin BCP staff conducts ongoing monitoring of golden-cheeked warbler, black-capped vireo, karst species, and bracted twistflower populations and habitat. In addition, City of Austin BCP staff provided support for several monitoring and research projects conducted during FY09 by City of Austin's Watershed Protection and Development Review department staff, University of Missouri, Texas A&M University, Texas State University, the University of Texas at Austin. The status of current monitoring and research projects are summarized in annual progress reports, which are provided as separate appendices.

BARTON CREEK MACROSITE

Barton Creek Wilderness Area (COA)

This tract is managed jointly with Austin Parks and Recreation Department (PARD).
Monitoring and management activities during FY09 included:

- Mist-netting and banding golden-cheeked warblers on the 100-acre prime study plot (City of Austin 2009 Avian Endangered Species Report).
- Mapping golden-cheeked warbler territories on the 100-acre plot (City of Austin 2009 Avian Endangered Species Report).

- Enumerating golden-cheeked warbler territories on the remainder of the tract, with help from volunteers (City of Austin 2009 Avian Endangered Species Report).
- Monitoring bracted twistflower colonies. BCP staff and volunteers tallied at least 126 plants, including 19 in a new colony. Unfortunately, only 5 plants were found within the deer exclosure. No seeds were collected this year.
- Periodic inspections of the entrances to Cave Y, Fog Cave, Seibert Sink, and Substation Sink for signs of human visitation, trash, and damage. No signs of trespass or vandalism found.
- Faunal surveys in Cave Y and Seibert Sink (latter not one of the 62 BCP caves).
- Inspection of a new karst feature, Conglomerate Cave, opened by a rock saw cutting an oak wilt trench. Staff found no endangered species or species of concern in the unstable substrate of this cave.
- Monitoring of water depth in wells by Barton Springs/Edwards Aquifer Conservation District staff.
- Installation of a trench around two merging oak wilt centers northwest of the intersection of Loop 360 and Walsh-Tarlton Lane. Staff began preparing for another trench around an oak wilt center near the intersection of Loop 360 and Loop 1.
- Installation of erosion controls on completed oak wilt trench, with help from Austin Youth Works Environmental corps (AYW E-corps) crew. AYW also covered sections of the trench path with brush to prevent their use as trails.
- Continued monitoring of active oak wilt centers. BCP staff and AYW E-Corps crews removed newly infected red oaks to prevent spore production.
- Removal of non-native invasive vegetation.
- Inspection of Austin Energy and Lower Colorado River Authority line-clearing activities. Staff requested repair of a road rutted by an Austin Energy truck, and removal of heavily-pruned trees; AE complied.
- Blocking an illegal mountain-bike trail with a cable at each end. Staff had attempted to erase this trail and block it with brush beginning in spring 2008, but had found it repeatedly re-opened. A reporter with the Austin daily newspaper wrote a story on this issue, after discussions with staff.
- Removal of several active and inactive transient camps, and large quantities of trash, with assistance from Austin Police Dept., PARD, and AYW E-Corps.
- Repair of vandalized perimeter fence, gate, and closure signs to discourage illegal access into golden-cheeked warbler habitat.
- Reporting illegal dumping of deer carcasses at gate near Loop 360 and Walsh-Tarlton Road

- Routine patrols of main roads patrols and surveys of main roads, trails, and perimeter fencing to look for signs of trespass, vandalism trespass, drainage problems, vandalism and/or dumping.

Barton Creek Greenbelt (COA)

This tract is managed jointly with Austin Parks and Recreation Department. Monitoring and management activities during FY09 included:

- Mist-netting and banding golden-cheeked warbler and mapping territories on the 100-acre prime study plot (City of Austin 2009 Avian Endangered Species Report).
- Enumerating golden-cheeked warbler territories on the stretch of the greenbelt upstream of Loop 1 (City of Austin 2009 Avian Endangered Species Report).
- Advising Parks and Recreation staff on appropriate native plants to replace non-natives, and providing seed for the restoration project along the greenbelt trail near the Loop 360 trailhead.
- Annual karst fauna survey at Airman's Cave, and routine maintenance and monitoring (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached in Appendix N.).
- Routine water and benthic sampling from several points on the creek by Watershed Protection and Development Review staff. These samples help to determine the health of the creek and how the creek is being affected by adjacent urban sprawl.
- Attempts to block and/or erase new, unauthorized trails in endangered species habitat.
- Removal of non-native invasive vegetation.

Friesenhahn (COA)

This tract is managed jointly with Austin Parks and Recreation Department. Monitoring and management activities during FY09 included:

- Enumerating golden-cheeked warbler territories throughout the tract (City of Austin 2009 Avian Endangered Species Report).
- Routine patrols of perimeter fencing to look for signs of trespass, vandalism, and/or dumping.
- Continued monitoring of active oak wilt centers.
- Removal of trash and several inactive camps, with cooperation from PARD and AYW E-Corps.
- Removal of non-native invasive vegetation.

Senna Hills (COA)

Monitoring and management activities for this tract during FY09 included:

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

Bohls II (COA)

- Renovation of existing buildings.
- Completion of a Tier III Land Management Plan for this tract.

BULL CREEK MACROSITE

UPPER BULL CREEK

Staff and volunteers 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, former WTP#4 tracts) in August 2009, with an average survey count of one deer per 8.8 acres. Twenty-six white-tailed deer were culled along with about 92 feral hogs. Culling of deer was conducted under a TPWD Level 2 MLDP. Deer harvesting began in November of 2008 and ended in February of 2009. The harvested meat was donated to the Capital Area Food Bank. The City contracted with the Department of Agriculture to help reduce feral hog densities within the Bull Creek drainage (including private properties), in addition to trapping and stand hunting, snares were used in this effort.

In response to concerns about the potential negative impacts from the proposed construction of a water transmission line, the City of Austin initiated a ground water study in the upper Bull Creek macrosite. Multiple springs and wells are monitored on a monthly basis to get baseline data.

Canyon Creek (COA)

Illegal trespass from Canyon Creek development remains an ongoing problem. The primary trespass routes appear to come from the adjacent Canyon Creek conservation easement to the north. Monitoring and management activities for this tract during FY09 included:

- Mist-netting and banding golden-cheeked warblers on the 100-acre transitional study plot (City of Austin 2009 Avian Endangered Species Report).
- Mapping of golden-cheeked warbler territories and banding individual birds within the 100-acre plot (City of Austin 2009 Avian Endangered Species Report).
- Contract to construct approximately 900 linear feet of an 8-foot game fence along the perimeter of the property to prevent trespass and manage white-tailed deer and hogs; project was completed.

- Routine patrols of main roads patrols and surveys of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Maintenance of interior roads for vehicle clearance.
- Trash removal.
- Repair of perimeter fence and gates damaged by unauthorized trespass.
- Meeting with adjacent preserve and property managers (Travis County and Concordia University) regarding trespass and vandalism issues; worked on collaborative solutions to the problems.
- Trapping and removal of feral hogs with the assistance of volunteers.
- Trapping of brown-headed cowbirds with the assistance of volunteers.
- Removal of non-native invasive vegetation.
- Reconnaissance for oak wilt: no new oak wilt observed. Continued monitoring of existing oak wilt centers.

Canyon Creek MUD #1 (129.37 former Canyon Creek MUD mitigation tract)(COA)

- Restoration of a recently discovered Jollyville Plateau salamander spring. The spring was being trampled by feral hogs, and a hog proof fence was installed with the help of volunteers.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Removal of non-native invasive vegetation.
- Completion of a Tier III Land Management Plan for this tract.

Canyon Creek MUD #2 (55 acre former Canyon Creek MUD mitigation tract) (COA)

- Routine inspection of Stovepipe cave entrance; no evidence of trespass or vandalism was noted.
- Karst faunal survey at Stovepipe cave (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.)
- Treatment of red-imported fire ants in the vicinity of Stovepipe cave (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.).
- Fence repair.
- Removed old trash.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Completion of a Tier III Land Management Plan for this tract.

Canyon Creek MUD #3 (30.23 former Canyon Creek MUD mitigation tract) (COA)

- Notified Travis County and representatives of Concordia University regarding illegal ATV trespass and trail clearing on the adjacent Concordia preserve lands. Concordia installed "no trespassing" signs.
- Installation of approximately 2900 linear feet of an 8-foot game fence along the perimeter of the property to prevent trespass; project was completed.
- Removal of old trash.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Completion of a Tier III Land Management Plan for this tract.

Franklin (COA)

Monitoring and management activities for this tract during FY09 included:

- Trapping of feral hogs.
- Routine patrols of main roads and perimeter fencing to look for signs of trespassing, vandalism, and/or dumping.
- Investigated illegal clearing; unable to determine why it was done, however, clearing ceased after investigation.
- Maintenance of existing stands and feeders for the deer management program.
- Repair of vandalized perimeter fence.
- Continued monitoring of the Cistern Spring/Jollyville Plateau salamander habitat restoration project; on average 2 to 3 salamanders continue to be observed.
- Seed collection from locally rare, spring-associated plants; subsequently sowed at the newly-protected Cistern Spring fenced area.
- Repair of access roads.
- Trash removal.
- Meeting on site with Travis County Sheriff's office regarding methods to discourage illegal dumping.
- Removal of non-native invasive vegetation.
- Periodic surface count monitoring for the Jollyville Plateau salamander; the goal is quarterly, however, due to the drought that was not possible (2009 Estimation of Jollyville Plateau Salamander Populations report – Appendix M).
- Monitoring of water level at springs and salamander sites; due to drought conditions most springs and spring runs were dry by July.

- Installation of new deer exclosures around hardwood saplings for golden-cheeked warbler habitat restoration.
- Installation of one wood duck nesting box.
- Reconnaissance for oak wilt: no oak wilt observed.
- Inventory of fences by BCP staff and volunteers. Fence type and conditions noted, corners marked with GPS unit.

Hanks and Gardens at Bull Creek (COA)

Monitoring and management activities for these tracts during FY09 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, with maintenance conducted as necessary.
- Removal of non-native invasive vegetation.
- Trash removal.
- Repair of vandalized perimeter fence, gate, and deer exclosure.
- Contract to construct approximately 2900 linear feet of an 8-foot game fence along the perimeter of the property to prevent trespass and manage white-tailed deer and hogs; project was completed.
- Seed collection for spring restoration project.
- Installation of two wood duck nesting boxes.
- Feral hog trapping.
- Review and oversight of a WPDRD project to enhance Jollyville Plateau salamander habitat by removing a low water crossing, thus lowering the water level and potentially habitat for predatory fish. Staff will continue to monitor and attempt to minimize any potential negative impacts that occurred during the implementation of this project. Staff also restored areas damaged by the removal of the dam.
- Removal of non-native invasive vegetation.
- Continued monitoring of active oak wilt centers. BCP staff and AYW E-Corps crews removed newly infected red oaks. Also scouted out area for new oak wilt trench, which will be installed the following fiscal year.

Lanier (COA)

Monitoring and management activities for this tract during FY09 included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Continuation of mark-recapture surveys for the Jollyville Plateau salamander on a quarterly basis at Lanier Spring (2009 Estimation of Jollyville Plateau Salamander

Populations report). Mark-recapture surveys were conducted in October 2007 (the conclusion of an 8-month study) and resumed in March 2008. The site was dry by July, so no additional surveys were conducted during 2009.

- Maintenance of existing stands and feeders for the deer management program.
- Removal of feral hogs.
- Removal of non-native invasive vegetation.
- Maintenance of interior roads for vehicle clearance.
- Reconnaissance for oak wilt: no oak wilt observed.

Former WTP 4 (COA) (a portion of this tract is not currently counted as a BCP Tract)

In December 2007, the Austin City Council voted to purchase an alternate site to move Water Treatment Plant 4 (WTP4) out of the Bull Creek watershed, so this site is no longer being considered for a water treatment plant. Monitoring and management activities for this tract during FY09 included:

- Enumeration of golden-cheeked warbler territories by volunteers (City of Austin 2009 Avian Endangered Species Report).
- Documentation that Moss Gulley spring was completely dry, which is the first time this has been observed.
- Periodic monitoring of Jollyville Plateau salamanders in the main branch of Bull Creek at and above the low water crossing to the southwest fence line until water levels dissipated due to the ongoing drought.
- Working with WPDRD staff on measures and a plan to restore flow to Moss Gully spring. WPDRD oversaw this project but unfortunately miscalculated measurements and backfilled concrete beyond the spring conduit. BCP staff plan to attempt to fix this problem and restore flow back to Moss Gully.
- Assisting WPDRD staff with acquiring baseline data on the main branch of Bull Creek and associated springs as part of the original mitigation plan when the water treatment plant was scheduled for construction at this site.
- Repair of perimeter fence and floodgates to prevent entry of feral hogs and deer.
- Working on golden-cheeked warbler habitat enhancement plan including seeding, planting, deer removal, and hog removal. This plan was, in part, mitigation for planned warbler habitat removal for the proposed water treatment plant. Since this treatment plant is no longer proposed to be built on this site, the proposed warbler habitat enhancement would likely serve as voluntary tree mitigation for trees that will be destroyed at the new site. As the new treatment plant site is located outside of the City of Austin's jurisdiction, any tree mitigation would be voluntary. Because of this, the mitigation trees may not be planted at the former site; rather, a separate

enhancement project and/or land acquisition may be proposed. This is yet to be determined.

- Continued seed collection for propagation (including shipping seed to the Texas Forest Service) as part of the restoration plan described above.
- Trash removal.
- Removal of non-native invasive vegetation.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Operation of hog traps and a hog pen trap.
- Reconnaissance for oak wilt: no oak wilt observed.
- Planting of red oak acorns and other tree seeds with volunteers to restore woodlands (KUT covered this project).
- Installation of two wood duck nesting boxes.
- Inventory of fences by BCP staff and volunteers. Fence type and conditions noted, corners marked with GPS unit.
- Leading a public "night hike" and other guided hikes on property.
- Hosting an open house for BCP partners held April 24 and 25. This event provided demonstrations of golden-cheeked warbler mist-netting and banding, karst faunal surveys, and other facets of BCP work.

Bowman (COA)

- Meeting with representatives of Concordia University and Travis County BCP staff regarding ongoing ATV trespass and illegal trail clearing from the adjacent apartment complex. The damage was limited to Concordia property; however, if not addressed, it was feared that the activity would spread onto the Bowman tract. Concordia responded by installing "no trespassing" signs and talked with the manager of the apartment complex.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Removal of non-native invasive vegetation.
- Removal of old trash.

MIDDLE BULL CREEK

Ivanhoe (COA)

Monitoring and management activities for this tract during FY09 included:

- Mist-netting and banding golden-cheeked warblers on the 100-acre prime study plot (City of Austin 2009 Avian Endangered Species Report).
- Mapping of golden-cheeked warbler territories on the 100-acre plot (City of Austin 2009 Avian Endangered Species Report).
- Setting back woody vegetation on approximately 4.5 acres within electric transmission line corridors, in order to expand BCVI habitat (City of Austin 2009 Avian Endangered Species Report). LCRA staff completed this task in lieu of the final stage of a plan to mitigate earlier damage to GCWA habitat on the site. Staff planted seeds of woody plants to accelerate restoration.
- Operation of feral hog traps by staff and volunteers.
- Maintenance and operation of a brown-headed cowbird trap, with the assistance of volunteers.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Discovery and mapping of a new illegal mountain bike trail within property boundary.
- Contacted Travis County BCP regarding motorcycle trespass that originated from their preserve.
- Contacting neighbors regarding encroachment issues such as illegal clearing, brush and trash dumping and the illegal feeding of wildlife on COA property. Once contacted most problems ceased.
- BCP staff contacted by a representative of the Animal Damage Control (USDA) regarding the desire to cull coyotes on the tract. Staff studied the problem and decided that an approach of educating the public was a more prudent action and that cull was not warranted.
- Erosion repair on access road.
- Fence and gate repair.
- Removal of non-native invasive vegetation.
- Trash removal.
- Monitoring of the rare Canyon Mock-Orange.
- Continued monitoring of “Rancho LaValencia” mitigation and remediation of disturbed preserve property. The City filed a lawsuit in an attempt to recover damages.
- Monitoring progress on measures to be implemented by the adjacent Ribelin Ranch development, including setbacks and fencing requirements that will benefit the preserve.

- Biannual monitoring of Beard Ranch cave for visible signs of vandalism and infestations of red-imported fire ants. No problems were noted (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.).
- Cave faunal surveys conducted by Zara Environmental on Beard Ranch and Pond Party Pit. This work was part of a larger contract to attempt to get a better idea on karst species distribution (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.).
- Reconnaissance for oak wilt: no oak wilt observed. However, oak wilt was observed on the adjacent Travis County preserve (Ribelin Tract).
- Contract to construct approximately 2100 linear feet of an 8-foot game fence along the perimeter of the property to prevent trespass and manage white-tailed deer and hogs. Contract was completed.
- Initiated new game fence contract for the eastern boundary (approximately 10,000 linear feet) of this tract.
- Inventory of fences by BCP staff and volunteers. Fence type and conditions noted, corners marked with GPS unit.
- Initiation of invasive species mapping by volunteers.

Beard Family Trust (COA)

Monitoring and management activities for this tract during FY09 included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Initiated new game fence contract for the eastern boundary of this tract.
- Sedimentation and erosion control work.
- Walking fence line with Canyon Ridge development, removal of trash, and talking to developer representative to prevent more incidents.
- Repair of perimeter fences.
- Inspection of Austin Energy line-clearing activities.
- Removal of non-native invasive vegetation.
- Operation of feral hog traps manned by staff and volunteers.
- Reconnaissance for oak wilt: no oak wilt observed.
- Inventory of fences by BCP staff and volunteers. Fence type and conditions noted, corners marked with GPS unit.
- Invasive species mapping by volunteers.

LOWER BULL CREEK

Forest Ridge, Hilltop, Hiller, and Gibson/Nott (COA)

Monitoring and management activities for these tracts during FY09 included:

- Removal of non-native invasive vegetation with help from AYW E-Corps.
- Mist-netting and banding golden-cheeked warblers on the 100-acre prime study plot (City of Austin 2009 Avian Endangered Species Report).
- Mapping of golden-cheeked warbler territories on the 100-acre plot (City of Austin 2009 Avian Endangered Species Report).
- Cave faunal survey at Jest John cave (Balcones Canyonlands Preserve Karst Management 2009 Annual Report, attached in Appendix N.
- Two site visits to Jest John cave; no sign of vandalism or human visitation (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached in Appendix N.).
- Conducted three BCP permit hikes.
- Routine fence repair and maintenance.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, and/or dumping.
- Trash removal.
- Reconnaissance for oak wilt.
- Removal of non-native invasive vegetation with staff and volunteers.
- Inventory of fences by BCP staff and volunteers. Fence type and conditions noted, corners marked with GPS unit.
- Continuation of invasive species mapping by volunteers.

Jester (COA)

Public access has been allowed on a portion of this tract; however, dodgeways have been installed to curtail prohibited mountain bike and horse use of this area. Other monitoring and management activities for this tract during FY09 included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Investigated potential encroachment from adjacent neighbors.
- Repair of entry signs/kiosk.
- Repair of the perimeter fence.
- Removal of non-native invasive vegetation by staff and volunteers.
- Inspection of Jester Pit.
- Reconnaissance for oak wilt; no oak wilt observed.

- Trail maintenance.
- Trash removal.
- Inventory of fences by BCP staff and volunteers. Fence type and conditions noted, corners marked with GPS unit.
- Continuation of invasive species mapping by volunteers.

St. Edwards, 3M and Krueger (COA)

Monitoring and management activities for this tract during FY09 included:

- Mist-netting and banding golden-cheeked warblers on the 100-acre prime study plot (City of Austin 2009 Avian Endangered Species Report).
- Mapping of golden-cheeked warbler territories on the 100-acre plot (City of Austin 2009 Avian Endangered Species Report).
- Reconnaissance for oak wilt: no oak wilt observed.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Vandalized signs were repaired.
- Trash removal.
- Routine fence repair and maintenance.
- Removal of non-native invasive vegetation.
- Inventory of fences by BCP staff and volunteers. Fence type and conditions noted, corners marked with GPS unit.
- Continuation of invasive species mapping by volunteers.
- Planting of red oak acorns and other tree seeds with volunteers to restore woodlands to the 3M deer exclosure area.

Barrow Preserve (COA)

Monitoring and management activities for this tract during FY09 included:

- Routine patrols and monitoring of adjacent new development (Canyon Rim).
- Periodic surface count monitoring for the Jollyville Plateau salamander (2009 Estimation of Jollyville Plateau Salamander Populations report - Appendix M).
- Water quality monitoring for pollutants by WPDRD staff.
- Removal of non-native invasive vegetation.
- Reconnaissance for oak wilt: no oak wilt observed.

Stillhouse Hollow (COA)

Monitoring and management activities for this tract during FY09 included:

- Control of red imported fire ants with boiling water. (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.).
- Removal of non-native invasive vegetation.
- Trail maintenance and repair.
- Routine patrols and monitoring of adjacent new development (Canyon Rim) and other adjacent properties.
- Preliminary work on an interpretive kiosk, with volunteer assistance and in collaboration with PARD.
- Trash and graffiti removal.
- Quarterly faunal surveys at Cotterell Cave (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.).
- Quarterly cave cricket exit counts by volunteers (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.).
- Periodic surface count monitoring for the Jollyville Plateau salamander (2009 Estimation of Jollyville Plateau Salamander Populations report).
- Meeting with PARD and WPDRD staff regarding habitat degradation of main spring; discussed methods to mitigate that damage by installing a "no climb" fence.
- Reconnaissance for oak wilt: no oak wilt observed.

CYPRESS CREEK UNIT

Staff and volunteers conducted 3 white-tailed deer census counts on a five-mile route on and near the Lime Creek tract (representing the Cypress Creek Macrosite) in August 2009, with an average survey count of one deer per 36.8 acres. Deer culling will be conducted during FY 10 under a TPWD Level 1 MLDP.

Lime Creek/Austin Simon (COA)

Monitoring and management activities for this tract during FY09 included:

- Continued monitoring of restoration work by Travis County for mitigation from the Lime Creek Road re-alignment. Irrigation occurred through the summer of 2009.
- Inspection of the areas around caves for signs of vandalism and infestation with red-imported fire ants. Lime Creek has two caves, which harbor endangered karst species. No signs of vandalism or red-imported fire ants were found (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.).
- Annual cave faunal surveys at Broken Arrow and Rolling Rock caves (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N).

- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.
- Aerial reconnaissance for oak wilt. Site inspections to ground-truth the observations are still pending.
- Response to a wildfire on 09 April 2009 that burned approximately 1 acre of golden-cheeked warbler habitat on the Austin Simon tract and 5 acres of Travis Audubon Society BCP land. BCP staff designed and implemented a post-wildfire vegetation monitoring protocol for the burned golden-cheeked warbler habitat and drafted a report of the findings.
- Periodic fence repair. Perimeter fence has been repeatedly damaged by vehicular crashes.
- Removal of trash, brush, and construction spoils.

NORTH LAKE AUSTIN MACROSITE

Coldwater/Cowfork (COA)

Monitoring and management activities for this tract during FY09 included:

- Enumeration of golden-cheeked warbler territories on a portion of the Cowfork tract (City of Austin 2009 Avian Endangered Species Report) where clearing for an Austin Energy infrastructure project occurred.
- Periodic patrols of main roads and perimeter fencing to look for signs of trespassing, vandalism, or dumping. Corrective actions were taken on a number of issues.
- Removal of trash, brush, and construction spoils.
- Management of an Austin Energy major distribution line replacement project and subsequent restoration efforts along a portion of the Cowfork boundary.
- Aerial reconnaissance for oak wilt. Site inspections to ground-truth the observations are still pending.

Cortaña (COA)

Monitoring and management activities for this tract during FY09 included:

- Mapping of black-capped vireo territories, and assessment of productivity (City of Austin 2009 Avian Endangered Species Report).
- Mist-netting and banding of an adult male black-capped vireo by Texas State University researchers (City of Austin 2009 Avian Endangered Species Report) on the adjacent River Place MUD tract.
- Construction by a contractor of approximately 3500 linear feet of deer-proof game fence around the northeast boundary of the tract, adjacent to River Place properties.

- Construction by a contractor of approximately 500 linear feet of deer-proof game fence along the frontage with Ranch Road 620, to discourage dumping.
- Improvement of the road to the cowbird trap in the shinnery. BCP staff widened the road and added road base to make it passable for volunteers in all weather.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, or dumping.
- Inventory of fences by BCP staff and volunteers. Fence type and conditions were noted, and corners marked with GPS unit.
- Repair of the perimeter fence.
- Trash removal.
- Inspection of Austin Energy line-clearing work. Staff requested removal of heavily-pruned trees, and AE complied.
- Trimming of vegetation that encroaches on roads.
- Wildfire fuel reduction along the northeast boundary of the tract.
- Vegetation monitoring along four pairs of transects, by means of point-intercept and line-transect methods, with help from a volunteer. The purpose of the monitoring is to assess the condition of black-capped vireo habitat.
- Setting rebar posts at ends of axes of existing vegetation transects to minimize variation in location of measurements from year to year.
- Photographic monitoring of vegetation in black-capped vireo habitat restoration area, with help from a volunteer.
- Planting Texas red oak (*Quercus buckleyi*) acorns, with help from volunteers, for GCWA habitat enhancement along slopes of a canyon in the south part of the tract.
- Planting native woody plant seeds in grassy areas along River Place boundary, for GCWA habitat enhancement.
- Collection of juniper foliage by volunteers to test live fuel moisture.
- Maintenance of existing deer stands and feeders.
- Maintenance and operation of a cowbird trap, with help from volunteers.
- Continued monitoring of existing oak wilt centers.
- Removal of non-native invasive vegetation.

Emma Long Park and Preserve (COA)

Monitoring and management activities for this tract during FY09 included:

- Mist-netting and banding golden-cheeked warblers on the 100-acre prime study plot (City of Austin 2009 Avian Endangered Species Report).

- Mapping of golden-cheeked warbler territories on the 100-acre plot (City of Austin 2009 Avian Endangered Species Report).
- Continued removal and documentation of non-native invasive vegetation. Ligustrum was removed from a large stretch of land adjacent to Turkey Creek and monitoring/removal of Tree-of-Heaven centers occurred. Volunteers and BCP staff assisted in invasive plant species removal and documentation efforts.
- Mapping and continued monitoring of known oak wilt centers. Contractors installed 4,350 feet of trench in conjunction with two adjacent private landowners.
- Aerial reconnaissance for oak wilt. Site inspections to ground-truth the observations are still pending.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Trash removal.

Long Canyon (COA)

Monitoring and management activities for this tract during FY09 included:

- Enumeration of golden-cheeked warbler territories on a portion of the tract where clearing for an Austin Energy infrastructure project occurred (City of Austin 2009 Avian Endangered Species Report).
- Management of an Austin Energy major distribution line replacement project and subsequent restoration efforts along a portion of the Long Canyon boundary.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism or dumping.
- Continued monitoring and mapping of existing oak wilt center. BCP staff worked with the Long Canyon HOA and BCP liaison to inform the neighborhood of its status.
- Removal of trash and construction spoils.
- Negotiating access for Austin Energy to the boundary of Long Canyon for a major distribution line replacement project.
- Aerial reconnaissance for oak wilt. Site inspections to ground-truth the observations are still pending.

Parke West (COA)

Monitoring and management activities for this tract during FY09 included:

- Quarterly karst faunal surveys at Spider Cave by BCP staff. Quarterly cave cricket exit counts were conducted at Spider Cave with the help of volunteers (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.).

- Monitoring of Spider Cave and vicinity for the presence of red-imported fire ant mounds (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached in Appendix N.).
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, or dumping.
- Aerial reconnaissance for oak wilt. Site inspections to ground-truth the observations are still pending.
- Removal of trash.

Vaught Ranch (COA)

Acquired the 49.86 acre Vaught Ranch tract as part of a settlement agreement between the developer and the U.S. Fish and Wildlife Service. The developer donated this property to the City of Austin and, as agreed to by the U.S. Fish and Wildlife Service, is to be managed as part of the Balcones Canyonlands Preserve. Monitoring and management activities for this tract during FY09 included:

- Enumeration of golden-cheeked warbler territories (City of Austin 2009 Avian Endangered Species Report).
- Finalizing legal access easement for the property.
- Completion of a Tier III Land Management Plan for this tract.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, or dumping.
- Removal of trash.

SOUTH LAKE AUSTIN MACROSITE

Staff and volunteers conducted 3 white-tailed deer census counts on a 5–mile census route covering portions of three South Lake Austin Macrosite tracts (Double J&T, Reicher Ranch, and Bohls) in August of 2009, with an average survey count of 1 deer per 6 acres. A total of 28 white-tailed deer were culled from the entire macrosite. Culling of white-tailed deer was conducted under a TPWD Level 2 MLDP. Harvesting began in November of 2008 and ended in February of 2009. Harvested meat was donated to the Capital Area Food Bank.

Bohls Ranch (COA)

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 the Lake Pointe mitigation is not fenced, the potential for

frequent trespassing onto Bohls continues. Monitoring and management activities for this tract during FY09 included:

- Mist-netting and banding golden-cheeked warblers on the 100-acre transitional study plot (City of Austin 2009 Avian Endangered Species Report).
- Mapping of golden-cheeked warbler territories on the 100-acre plot (City of Austin 2009 Avian Endangered Species Report).
- Monitoring of birds by a volunteer on six Land Condition Trend Analysis transects in the proposed wastewater treatment plant area (5 visits).
- Vegetation monitoring along 10 pairs of transects, by means of point-intercept and line-transect methods. The purpose of the monitoring is to assess restoration of black-capped vireo habitat.
- Setting rebar posts at ends of axes of existing vegetation transects to minimize variation in location of measurements from year to year.
- Photographic monitoring of vegetation in black-capped vireo habitat restoration area, with help from a volunteer.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Removal of non-native invasive vegetation.
- Trash removal.
- Maintenance of existing stands and feeders for the white-tailed deer management program.
- Maintenance and operation of a brown-headed cowbird trap with help from volunteers.
- Participation in the Westcave Christmas Bird Count, which includes portions of the South Lake Austin macrosite.

Commons Ford Ranch Park (COA)

Monitoring and management activities for this tract during FY 07-08 included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Leading guided bird hikes for Travis Audubon Society.

Double J&T (COA)

Monitoring and management activities for this tract during FY09 included:

- Mist-netting and banding golden-cheeked warblers on the 100-acre transitional study plot (City of Austin 2009 Avian Endangered Species Report).

- Mapping of golden-cheeked warbler territories on a 100-acre plot (City of Austin 2009 Avian Endangered Species Report).
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, and/or dumping.
- Replacement of the cattle guard at the end of Kollmeyer Drive.
- Perimeter fence repair.
- Trash removal.
- Removal of non-native invasive plants.
- Maintenance of existing stands and feeders for the deer management program.
- Maintenance and operation of a brown-headed cowbird trap with help from volunteers.
- Participation in the Westcave Christmas Bird Count, which includes portions of the South Lake Austin macrosite.
- Continued monitoring of two existing oak wilt centers.
- Documenting runoff and siltation from construction sites on adjacent properties.
- Continued monitoring of transplanted grasses at a quarry restoration site.

Reicher Ranch (COA)

Monitoring and management activities for this tract during FY09 included:

- Renovations of existing buildings at the compound which have now become Wildland Conservation Division offices. Staff moved into new offices on June 20.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, and/or dumping.
- Routine maintenance and upkeep of the greenhouse. Staff prepared and planted seeds and grew numerous plant species in the greenhouse for use in restoration and education efforts on the BCP.
- Road repair.
- Removal of asphalt from old office driveway, improvement of the soil, and installation of an irrigation system. Staff and volunteers then planted grass seed to reclaim the area.
- Construction by volunteers of a Chimney Swift nest tower, donated by Travis Audubon Society.
- Trash removal.
- Removal of non-native invasive vegetation.
- Trimming vegetation during refurbishment of buildings for new offices.

- Participation in the Westcave Christmas Bird Count, which includes portions of the South Lake Austin macrosite.
- Capture of a Kinkajou that had taken up residence on the tract, and its return to the Austin Zoo.
- Continued monitoring of an existing oak wilt center. There was no sign of new infections outside the trench or in trees treated with Alamo®.
- Collection by volunteers of juniper samples for live fuel moisture measurements.

Schramm Ranch (COA)

Monitoring and management activities for this tract during FY09 included:

- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Documenting runoff and siltation from construction sites on adjacent properties.

WEST AUSTIN MACROSITE

Mount Bonnell (COA)

This small hilltop park overlooking Lake Austin is co-managed with Austin Parks and Recreation Department. Monitoring and management activities for this tract during FY09 included:

- Monitoring of bracted twistflower colonies. BCP staff and volunteers located 25 plants.

Ullrich Water Treatment Plant (COA)

This tract is managed by the Austin Water Utility. Monitoring and management activities overseen by BCP staff and volunteers during FY09 included:

- Monitoring of bracted twistflower colonies. BCP staff and volunteers located 8 plants.
- Cave faunal survey conducted by staff at Little Bee Creek cave (*Balcones Canyonlands Preserve Karst Management 2009 Annual Report,* attached in Appendix N.).
- Removal of non-native invasive vegetation.

Vireo Research Area (COA)

Monitoring and management activities for this tract during FY09 included:

- Preparation by BCP staff and AYW E-Corps of a 7-acre site for a prescribed burn to restore black-capped vireo habitat. Weather conditions prevented conducting the burn during this fiscal year. The burn is currently scheduled for winter of 2009-2010.
- Survey of five vegetation transects to assess effects of the 7-acre prescribed burn. Staff, with help from a volunteer, recorded vegetation data along these transects.
- Initiation of a study by the University of Texas into the light requirements of bracted twistflower, to be completed by the end of 2009.
- Leading guided hikes highlighting the historical significance of this site as the largest black-capped vireo colony within the BCP and future plans for habitat restoration. Other outreach/education events included bird identification and hikes for children.
- Removal of non-native invasive vegetation.
- Aerial reconnaissance for oak wilt. Site inspections to ground-truth observations are still pending.
- Routine patrols of main roads and perimeter fencing to look for signs of trespass, vandalism, or dumping.
- Future management plans include fencing on the north, west, and east boundaries of the tract (summer 2010) and deer management (fall 2010). Mechanical manipulation of the upland area between the two knolls is scheduled for January 2011.

City of Austin BCP Outreach Program

The City of Austin provides outreach to the community for the Balcones Canyonlands Preserve (BCP) through educational and volunteer activities which, in turn, support management of the lands directly and indirectly. Volunteers provide labor that shortens task time and expertise that enhances staff projects. During their participation, volunteers develop a richer understanding of the BCP and a personal connection to its ongoing management and success. Educational presentations to community organizations and homeowners associations, informational displays at community events, and guided hikes for the public are opportunities to provide information to and field questions from citizens. It is believed that better informed recreationists, neighbors, and citizen advocates will respect property boundaries, access rules, and strategies for property management. The outreach program also models responsible public access through its volunteer and educational efforts. Though many outreach activities occur on specific tracts, others are conducted offsite or preserve-wide.

The BCP strategic plan outlines the following role for the Outreach program.

- Educate the public about the BCP and its regulatory requirements.

- Facilitate implementation of the BCP Land Management plans by: forging relationships with the community through education that creates greater support for the BCP, maintaining and expanding a volunteer program that extends the abilities of staff to accomplish tasks, and providing education and access to citizens.
- Develop partnerships that extend resources for BCP education.
- Reduce stresses created by Wildland Urban Interface issues through outreach and education to communities that directly abut the preserve.
- Facilitate research by academic institutions and other scientists to further the understanding of endangered species biology and management, the BCP, and other areas important to endangered species preservation.

The FY09 outreach staff consisted of Cappy Smith, Conservation Program Coordinator, and Daniel Dietz, Environmental Conservation Information Specialist. Cappy began working in January 2009 after the position had been vacant since August 2008. Daniel Dietz tendered his resignation in July 2009 and the position remained vacant for the remainder of fiscal year. In spite of these vacancies, education and volunteer efforts were abundant and successful.

City of Austin Education Activities

Educational programs included on-site hikes and education activities as well as community events and programs. In addition, the extensive website provides information for a broader audience. Overall, 2,754 individuals attended activities that were specifically educational in nature and learned about the Balcones Canyonlands Preserve program. Over 2,541 volunteer hours were worked on BCP properties. Those attending volunteer projects also received information about the BCP program, though education was not the primary focus of those events.

ON-SITE ACTIVITIES/EVENTS

Guided hikes and property tours represented a significant portion of public education in FY09, with a total of 22 taking place. The regularly scheduled BCP hikes began in September of 2007. These hikes are offered on the first Sunday and third Saturday of each month from October to February. A reduced schedule was offered during the endangered bird breeding season from March to June. Hikes took a hiatus during the hottest months of July and August before resuming again in September. To ensure that guided access continues to be asset to the program and not damage our conservation targets, outreach staff worked with BCP biologists to revise guidelines to direct our interpretive hike program.

In addition to the regularly scheduled hikes mentioned above, there were a number of specialty hikes. Most were open to the public, such as ones that focused on birding, geology, children's activities, and photography.

A special open house was offered on two days in April at the former Water Treatment Plant 4 site. Staff offered special presentations highlighting the unique fauna of the site including field stations on the Jollyville Plateau salamander and karst invertebrates along with a golden-checked warbler banding demonstration. In attendance were over 38 individuals including partners, BCP friends, city officials, and persons who were instrumental in the setting aside the site for protection.

The Bull Creek Preserve Entry Permit program continued in FY09. The Bull Creek Preserve is a portion of the BCP's Lower Bull Creek Macrosite. Through this program up to 80 individuals can earn a permit to access trails in the Bull Creek Preserve during the golden-cheeked warbler breeding season from March 1 and July 31. Without an Entry Permit access is unauthorized and classified as trespassing. Earning a permit requires citizens to read through a content-rich online course, pass a multiple-choice test and complete a guided hike. The permit they earn is valid for three seasons. This program has been running since 2005. In 2009, three permit hikes were offered for those who completed the on-line test resulting in fifty-four new permits issued.

The WCD's outreach program continued to be the driving force for the third year of the BCP Hike and Lecture Series. The series is a collaborative venture by all the BCP managing partners. Each month on the 2nd Saturday a hike was hosted by one of the managing partners. Four lectures were also scheduled over the course of the year. Both the City and Travis County's program hosted multiple months since each has several dedicated properties and more staff resources. Community response to the hikes was overwhelming, with all hikes filling up and most maintaining sizable waiting lists. The lecture group sizes varied widely from as many as 50 people for the lecture about restoration organized by Travis County to as few as 16 individuals for the hike and lecture about vireo habitat. The City of Austin hosted 3 hikes and organized 3 lectures for the series, handled registration and confirmation notices for all events, and created the series brochure.

Number of hikes and tours led on City of Austin BCP tracts in FY09

Tract	# of hikes

Bohls	3
Bull Creek Preserve (Forest Ridge, Jester)	3
Cortana	2
Long Canyon	4
Reicher	4
Vireo Research Area	6
Former Water Treatment Plant 4 site	7

The third annual native plant education event was held on November 1, 2008 at Canyon Creek. The event is designed to encourage residents surrounding the BCP to use native plants in their new landscaping and to replace existing invasive plants with natives. Trees and shrubs grown in the WCD greenhouse are distributed free of charge to lure residents to the event, where they also receive educational handouts. By using natives, residents can soften the edge of the wildland urban interface by supplying food for wildlife, using less fertilizer and water than is required by most non-native species, and preventing the spread of non-native exotics from suburban environments into the surrounding preserve. Approximately 80 people attended the event.

OFF-SITE ACTIVITIES/EVENTS

Meaningful efforts in education also occurred in the community. Presentations to community groups, neighborhood associations, and K-12 classes were given upon request to groups. A total of 2269 individuals were reached through these efforts.

A total of 5 presentations were given to neighborhood or homeowners associations. Two presentations for the Long Canyon HOA were general in nature. A presentation to The Trails HOA was given in partnership with the Texas Forest Service and Austin Parks and Recreation to address the concerns about wildfire. Residents were given additional information about Fire Wise Communities. Presentations to Canyon Mesa HOA and the Great Hills Neighborhood Association were given to address the growing feral hog problem in that area and were designed to give residents the information they needed to respond to it. As a result of citizen concerns, a 311 system was initiated to track hog damage within the city. The city also contracted with Wildlife Services to trap feral hogs on BCP.

Six presentations were given to community groups including the Hill County Trail Runners, Capital Area Master Naturalists, Williamson County Conservation Fund, and

St. Christopher's Episcopal Church. Through these presentations, 91 individuals were given background information about the BCP, its importance, and need for protection.

Presentations were also made to school groups about the uniqueness of the BCP, its endangered inhabitants, and their habitat requirements. Thirty-six 3rd grade students from Dawson Elementary and 110 Canyon Creek Elementary 4th graders were given presentations.

Outreach staff assisted fire manager Glen Gillman in hosting a Wildfire Awareness Week event, Wildfire, Wildlands and You, at the Austin Nature and Science Center on April 4, 2009. The event was sponsored by several sponsors including the Capital Area Fire Chief Association and Texas Forest Service and was offered as a special event during Austin Nature Days. 200 participants listened to lectures, evaluated structures for wildfire readiness, and learned about fire-wise landscaping. Engaging children's activities were also available to teach the entire family about wildfire awareness. Outreach staff worked with a graphic artist to produce event flyers and an advertisement that was included in the Austin American Statesman's special pull-out addition for Austin Nature Days.

Educational efforts included community events such as Austin Cave Festival, Wildflower Days, Austin Water Utility Earth Day, and Women in Science event for girls. A total of 1,545 people attended these community events and had access to the BCP's information.

In addition, staff participated in a session of the CityWorks Academy, a new initiative to provide in-depth, behind-the-scenes information about the City's operations and key issues to the Austin citizens. The effort is designed to equip citizens with knowledge and insight about city business to enable them to be informed, effective community leaders. Forty-five attended the session about the Austin Water Utility including information about the BCP.

DEVELOPMENT OF OUTREACH TOOLS

The website continues to be an excellent source of information about the BCP, educational activities, hikes, and volunteer opportunities. Information is frequently updated. Each month new educational and volunteer opportunities are added to the website and on-line registration system. In addition, almost 1,000 people receive the monthly email distribution publicizing the opportunities.

Informational kiosks for Reicher Ranch and Stillhouse properties are still in the planning stages.

City of Austin Volunteer Activities

The BCP program benefitted from the efforts of volunteers investing an impressive 2,648 hours in many different types of projects. This number translates into more than the equivalent of an additional staff person. Volunteer activities have many forms, with some work being relatively independent of city staff, while other work takes place in large groups led by staff. There are too many volunteer projects to list individually, so what follows is a list of project categories and an example from each one.

Ecological management is one of the chief volunteer activities on the BCP. Volunteers planted acorns on 3M and Cortana. Volunteers also assisted with the removal of invasive species, both plants and animals. Sixteen volunteers contributed 142 hours to monitor 5 cowbird traps throughout the spring, while two volunteers spent 70 hours monitoring feral hog traps. The volunteer Invasive Species Corps, a highly trained group of volunteers who track invasive plant infestations on the BCP conducted invasive plant mapping on Forest Ridge and the Ivanhoe tract. Twenty-four members of the Corps completed 350 hours of mapping activity. Additionally, four invasive plant removal workdays were held in the Forest Ridge, Cortana and Emma Long areas. In May, staff partnered with other agencies to provide an Invaders of Texas training for volunteers. Invaders of Texas is a multiple agency effort to systematically map invasive species throughout the state and assist land managers in invasive species control and eradication. Our volunteer data collection is now submitted to a state-wide data base that is available on the Invaders website.

Volunteers collected data to contribute data to research projects and track changes in resource abundance. Volunteers continue to collect live fuel moisture samples so the program's fire manager could better predict the effects of our prescribed fires and know if wildfire was a danger. They collect this data every two weeks, and it is posted on the Wildland Conservation Division website. Volunteers also conducted cave cricket exit counts, surveyed for golden-cheeked warblers, surveyed Jollyville Plateau salamander populations; conducted vegetation transects, and assisted with white-tailed deer surveys. One volunteer alone worked 180 hours assisting staff with golden-cheeked warbler banding and surveys. However, much of this data is collected without the presence of WCD staff and would not otherwise be obtained.

Educating the public about the BCP's missions is a high priority for the WCD, and much of this work is accomplished with volunteers. Off site educational events previously mentioned above utilized a cadre of volunteers to staff educational stations at events. Volunteers contributed 91 hours to assist with the plant education event at Canyon Creek, Austin Cave Festival, Wildflower Days, and the Wildlfire, Wildlands and You event.

Our volunteer led guided hikes provide access to properties that are not normally open to public recreation while educating the public of the BCP's mission and the unique aspects of our landscape. Volunteers led three guided hikes on Bohls and Reicher Ranch. Two volunteer-led hikes were given on Cortana while 4 hikes were offered on Long Canyon. Six hikes were led at Vireo Research Area and four hikes were led at former Water Treatment Plant 4 site. Additional hikes were led by staff members.

Two other categories of volunteer projects include recreation management, and maintenance and monitoring. Volunteers spent 106 hours conducting trail maintenance on Bull Creek Preserve. During this fiscal year, property monitors were very active. Goat Cave preserve and Blowing Sink preserve are visited twice a month to survey for vandalism or other preserve problems.

Finally, volunteers continued to inventory fences, a project that began in FY 08. Volunteers donated 63 hours to these efforts which involves walking fence boundaries, making note of fence conditions, reporting on boundary issues such as cut fences, illegal access areas, and illegal dumping.

TRAVIS COUNTY

At the close of FY09 Travis County managed a total of 4,627 acres of habitat lands dedicated to the BCP plus 819 acres of Steiner Ranch Preserve land, and continues to actively pursue acquisition and management of additional habitat lands to meet the terms and conditions of the BCCP. All Travis County owned or managed BCP tracts are regularly patrolled and inspected by Travis County Park Rangers and Natural Resources Staff. Travis County performs Texas Historical Commission reviews on tracts with cultural resources.

BULL CREEK MACROSITE

Canyon Vista (TC)

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 2004. Management efforts included:

- Continuing public outreach efforts with neighboring landowners, Home Owners Associations, and the staff and students at the adjacent Laurel Mountain Elementary School. Two hikes led by Natural Resources staff occurred in FY09 which included a group organized by the BCP Hike and Lecture Series coordinators and another group hike comprised of the surrounding Canyon Vista neighbors.
- Natural Resources staff continued to work in cooperation with Laurel Mountain Elementary staff on their outdoor laboratory, which included creating a BCP educational sign, consulting on environmental education projects, and providing trees and shrubs to be planted in areas accidentally disturbed by Laurel Mountain Elementary activities.
- Travis County met with the Canyon Mesa Homeowners Association to address erosion, trespass, feral hogs and illegal dumping concerns.
- The tract was assessed throughout the year for feral hog damage. To facilitate hog management efforts the lower portion of the main trail at the Yucca Mountain gate was improved to allow vehicle access to a certain point. The Canyon Vista tract is one of the most heavily impacted by feral hogs, and AgriLife Extension hog trappers are planning to trap in FY10.
- Following vandalism to boundary fence, repairs were completed.
- Natural Resources staff established a 100-acre prime habitat golden-cheeked warbler plot on Canyon Vista in FY08 and completed 60 hours of monitoring effort in the spring of 2009. Data collection is summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L.
    - Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Concordia University Preserve (TC)

The Concordia University Preserve, also historically referred to as the "Schlumberger" tract, consists of a 250-acre conservation easement conveyed to Travis County in March 2007. Management obligations were accepted by Travis County as the result of terms of the landowner's USFWS 10(a) permit TE-827597-2. Management on this tract in FY09 included:

- Staff met with Concordia University staff and faculty to discuss research interests and science curriculum related to use of the Preserve area. Natural Resources staff also participated in discussions concerning access policy and protocol for Concordia University staff, faculty, and students.
- Staff also met with adjunct faculty and a teacher and students from Lake Travis High School to help facilitate writing of a research grant for Texas Healthy Habitats grant funds to initiate a water monitoring project at Concordia University preserve.
- Staff and Texas AgriLife Extension hog trappers evaluated the preserve area for feral hog activity and found damage around and near the pond area below the main campus of Concordia University. Texas AgriLife Extension hog trappers plan on setting traps in the preserve throughout FY10.
- Oversaw construction of preserve boundary fences and signs by Concordia University.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Ribelin (TC)

The Ribelin tract was acquired fee simple by Travis County in June 2004. This parcel consists of 320 acres and connects City of Austin managed preserve lands located to the southeast (the Ivanhoe tract) with those to the north and west (the Franklin and Lanier tracts). Travis County management on the Ribelin tract in FY09 included:

- The Ribelin tract was consistently evaluated in FY09 for feral hog damage. The Ribelin tract is one of the most heavily impacted by feral hogs, and volunteer and AgriLife Extension hog trappers have been active on the tract throughout FY09. Seventeen hogs were successfully removed from the property during this time.
- Staff has worked cooperatively with American Constructors throughout the construction of the adjacent middle and high school to address any concerns about construction activities, access, and trash build-up on the preserve. As construction progresses, a high fence is being installed between the preserve and school sites.
- Staff worked extensively with the Forest Ridge Waterline group and City of Austin staff on preliminary geotech drilling work related to Water Treatment Plan #4 construction to clearly delineate access and use protocols for this long-term project within the power line easement on Ribelin. Staff will be in constant contact with surveyors, engineers, and consultants throughout the life of this project in order to address any questions or concerns that may arise.

- Ribelin has an infrequent trespass problem along the power line easement that is being addressed by both City of Austin and Travis County staff since Ivanhoe to the east is also being impacted.
- Natural Resources staff established a 100-acre prime habitat golden-cheeked warbler plot on Ribelin in FY2006 and completed 60 hours of monitoring effort in the spring of 2009. Data collection is summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L.
- An incidental BCVI observation resulted in follow up surveys. See Appendix X.
- Staff monitored impacts of the Ribelin 10(a) permit developments on the 240 ac. Ribelin Mitigation tract adjoining, including monitoring the demolition of an old house straddling the boundary.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Woody Hollow Preserve (TC)

Woody Hollow Preserve is an eight acre conservation easement that Travis County began managing in December 2008. This property abuts the City of Austin's Jester and Forest Ridge tracts to the north and contains habitat for the golden-cheeked warbler. Travis County management on Woody Hollow Preserve in FY09 included:

- Golden-cheeked warbler presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L.
- Wrote a letter to all direct neighbors notifying them of the new status of the land and educating them about the Balcones Canyonlands Preserve.
- Installed boundary signs in some select areas.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

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 and Toops tracts, and includes lands managed thorough conservation easements or owned by Travis County.

King (TC)

The King tract consists of a 59-acre parcel immediately adjacent to the Attwood and Blake tracts, and the Nature Conservancy of Texas' Lehmann Preserve. This parcel was acquired in October 2003. Management activities on the King tract in FY09 included:

- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Attwood (TC)

The 31-acre Attwood tract was acquired fee simple in June 2004. Management activities on the Attwood tract in FY09 included:

- Completed an assessment of non-native plant species, and a project to remove a large stand of golden bamboo (*Phyllostachys aurea*) is scheduled for Fall 2009.
- Tract was surveyed for signs of oak wilt, with no oak wilt observed.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Blake (TC)

The 38-acre Blake tract was a fee simple acquisition completed in June 2004. Management efforts in FY09 included:

- Tract was surveyed for signs of oak wilt, with no oak wilt observed.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

"The Crossings" Preserve (TC)

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 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 FY09 included:

- 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.
- Staff hosted a BCP Hike and Lecture Series presentation and guided hike of The Crossings trails in May of 2009.
- Black-capped vireo presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Black-capped Vireo, 2009* report, attached as Appendix K.

- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Gann (TC)

The 16-acre Gann tract was acquired fee simple in FY09. Travis County habitat management occurring on the Gann tract in FY09 consisted of:

- Building assessments of existing structures on the tract were performed to determine usage categories and building condition.
- The theft of numerous items from an old house on the tract was documented.
- A metes and bounds boundary survey was scheduled to clarify the northern boundary location and avoid neighbor conflicts.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Toops (TC)

Habitat management activities on the 170-acre Toops tract included:

- Brown-headed cowbird trapping continued at a site on private property immediately adjacent to the tract, and results are found in the *2009 Wildlife Management Summary for Travis County BCP Lands*, attached as Appendix P.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

JOLLYVILLE UNIT

The Jollyville Unit is located in the Cypress Creek Macrosite and incorporates the Bunten, Cuevas, Cuevas East, Grandview Hills, Lake Perspectives, Mirtsching, Nootsie, Romberg, Snowden, Stratton, Vireo Ridge and Vista Point tracts, and includes lands held in fee simple ownership and managed thorough conservation easements. Staff and volunteers conducted white-tailed deer census counts on the Jollyville Unit in the Fall of 2008, with an average survey count of 1 deer per 11 acres. A total of 20 white-tailed deer were culled from the entire Unit. Culling of white-tailed deer was conducted by Orion Research & Management Services, who operate under a TPWD Scientific Permit. Harvesting began in December of 2008 and ended in February of 2009. All harvested meat is donated to Caritas of Austin. For further details on Travis County's white-tailed management see the *2009 Wildlife Management Summary for Travis County BCP Lands*, attached as Appendix P.

Bunten (TC)

The 170-acre Bunten tract was acquired in fee during FY02. Travis County habitat management occurring on the Bunten tract in FY09 consisted of:

- 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, 2009 Field Season* report, attached as Appendix L.
- Demolition and removal, through the services of a licensed contractor, of two condemned houses that contained asbestos.
- 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 M.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Cuevas (TC)

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 FY09 included:

- Surface monitoring of protected karst features continued, and is discussed in the *Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached as Appendix N.
- Karst faunal and cricket surveys were conducted on all BCCP-listed caves, and is discussed in the *Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached in Appendix N.
- Red Imported Fire Ant monitoring was performed.
- Coordinated fencing project with fencing contractor and County surveyor to better protect tract from trespassing and possible adjacent livestock encroachment. Project to be completed in winter 2009.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Texas System of Natural Laboratories tracts (TC)

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 several parcels surrounding the openings of a number of important karst features. The TSNL tracts are surrounced by the Cuevas and Cuevas East tracts. Management of these parcels included:

- Surface monitoring of protected karst features continued, and is discussed in the *Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached as Appendix N.
- Karst faunal and cricket surveys were conducted on all BCCP-listed caves, and is discussed in the *Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached in Appendix N.
- Red Imported Fire Ant monitoring was performed.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Cuevas East (TC)

The 22-acre Cuevas East tract (also sometimes referred to as the "GDF/Purcell tract") was acquired fee simple in December 2008. Habitat management activities in FY09 included:

- Territory-level monitoring of the GCWA is summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L
- Black-capped vireo presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Black-capped Vireo, 2009* report, attached as Appendix K.
- Surface monitoring of protected karst features continued, and is discussed in the *Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached as Appendix N.
- Karst faunal and cricket surveys were conducted on all BCCP-listed caves, and is discussed in the *Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached in Appendix N.
- Red Imported Fire Ant monitoring was performed.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Grandview Hills (TC)

The Grandview Hills tracts are comprised of 311 acres in multiple parcels that were acquired fee simple or conveyed through conservation easements between FY02 and FY04. Habitat management on Grandview Hills in FY09 included:

- Travis County Natural Resources staff provided members of the Grandview Hills Homeowners Association, the Ridge at Grandview Hills Homeowners Association, and the Estates at Grandview Hills with guided tours. They also continued to foster a management partnership with SAS Institute staff.
- On the southern portion of Grandview Hills, golden-cheeked warbler surveys were performed and results are summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L.
- Black-capped vireo surveys were performed and results are summarized in Travis County's *Monitoring of the Black-capped Vireo, 2009* report, attached as Appendix K.
- Travis County staff surveyed white-tailed deer to quantify and manage populations. Feral hog populations were continually assessed and an active trapping hog program is in place on this tract. Data from these activities is summarized in the *2009 Summary of Wildlife Management Activities on Travis County Managed Tracts of the Balcones Canyonlands Preserve*, and is attached as Appendix P.
- Travis County Natural Resources staff completed quarterly Jollyville Plateau salamander surveys in SAS canyon and Kretschmarr salamander cave in FY09. City of Austin Watershed Protection and Development Review staff continued to provide technical support. A report detailing these findings and survey results is presented in Appendix M.
- Surface and subsurface monitoring of protected karst features continued, and is discussed in the *Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached as Appendix N.
- A new sign was designed and installed along an unauthorized trail leading to Kretschmarr Rock Shelter on the southern portion of Grandview Hills as well as temporary fencing across the trail. Four separate Incident Reports were written to document ongoing issues with trespassers accessing this feature illegally. Staff will continue to monitor this feature and develop new plans for dealing with the issue in FY10.
- Staff monitoring found many issues exist along the boundary between the northern portion of Grandview Hills and the neighborhoods such as, but not limited to, land clearing, planting of non-native and invasive plant species, installation of lighting, bird feeders, and watering stations, dumping of landscaping debris, pet waste, and trash, and trespass. Staff will develop a protocol for expeditiously addressing these issues in FY10 and will address the issues.

- Staff negotiated with developer and neighbor to allow the developer to trim some trees in the Denali Conservation Easement Buffer Area which would both improve BCVI habitat and also improve the neighbor's view.
- Staff communicated with the 69 Grandview LP group as plans to develop Section 11 adjacent to the Grandview Hills Buffer Zone Area (to the east of SAS Canyon) proceeded. Unauthorized clearing within the Preserve occurred in the summer of FY09 and staff worked with the developer to address potential mitigation to make up for this activity.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Nootsie (TC)

The 120-acre Nootsie tract was acquired in FY05. Management activities included:

- Management of brown-headed cowbirds, white-tailed deer and feral hog populations continued. The *2009 Summary of Wildlife Management Activities on Travis County Managed Tracts of the Balcones Canyonlands Preserve* is attached as Appendix P.
- Golden-cheeked warbler surveys were performed and results are summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L.
- Approximately 75 native trees were planted by both student/professor volunteers from Concordia University and Travis County NREQ staff.
- Travis County staff hosted a BCP Hike and Lecture Series guided hike on the Nootsie and Vireo Ridge tracts in January 2009.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Snowden (TC)

Travis County acquired the 54-acre Snowden parcel in 2007. Management of this tract in FY09 consisted of:

- A number of structures on the tract were cleaned or repaired, and old fencing and dumped materials were collected and hauled off the preserve.
- Building assessments of existing structures on the tract were performed to determine usage categories and building condition.
- 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 USFWS in FY10.

- Travis County staff oversaw power line and infrastructure maintenance activities performed by Pedernales Electric Cooperative.
- Did assessment of dump straddling a section of the northern boundary to make decisions on remediation.
- Constructed fencing on 4800 linear feet of the northern boundary of tract.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Stratton (TC)

Travis County acquired the 6-acre Stratton tract in August 2004. The tract is completely surrounded by County preserve land. Management of this tract in FY09 consisted of:

- Travis County staff administered the demolition and removal of dilapidated and vandalized structures at Stratton, completed in winter of 2009.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Vireo Ridge (TC)

Vireo Ridge was acquired in fee through multiple transactions in FY00 and FY01, and consists of 581 acres plus a 35 ac. tract of GCWA and BCVI habitat. Management on Vireo Ridge in FY09 consisted of:

- American Youth Works performed BCVI habitat restoration on this tract in FY09.
- 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, 2009 Field Season*, attached as Appendix K.
- Black-capped vireo presence/absence surveys were performed within the 35 ac area and results are summarized in Travis County's *Monitoring of the Black-capped Vireo, 2009* report, attached as Appendix K.
- Travis County staff trapped brown-headed cowbirds 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.
- Travis County Texas Department of Agriculture licensed staff worked to identify and remove invasive and exotic plant species at Vireo Ridge, including chinaberry (*Melia azedarach)* and heavenly bamboo (*Nandina domestica)* . For a full description of invasive and exotic plant management activities, please see Appendix O, *Vegetation Management Activities on Travis County Balcones Canyonlands Preserve during FY2009*.

- White-tailed deer and feral hog surveys were completed and efforts to manage populations of these species is reported in the *2009 Summary of Wildlife Management Activities on Travis County Managed Tracts of the Balcones Canyonlands Preserve*, attached as Appendix P.
- Travis County staff oversaw power line and infrastructure maintenance activities performed by Pedernales Electric Cooperative.
- Building assessments of existing structures on the tract were performed to determine usage categories and building condition.
- 1 acre inholding around the Mirtsching house was designated in preparation for resale. Repairs to the house were made and landscaping cleaned up in anticipation for listing.
- Identified an area of compromised silt fencing near a development site that was installed to protect drainages on tract from erosion. Coordinated repair work with developer to resolve the issue and reinforce silt fencing in the vicinity.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Vista Point (TC)

Travis County acquired the 490-acre Vista Point tract in FY02. Habitat management on this tract in the last year included:

- Travis County coordinated efforts with American Youth Works to plant approximately 50 trees and shrubs in the BCVI habitat restoration area.
- Staff conducted interior and boundary surveys of the property throughout FY09. Issues encountered included trespass and the need for fence installation along the FM 2769 boundary.
- Karst faunal and cricket surveys were conducted on McDonald cave and are discussed in the *Balcones Canyonlands Preserve Karst Management 2009 Annual Report*, attached in Appendix N.
- Investigations to quantify and manage populations of white-tailed deer and feral hogs continued. A summary of these activities is attached as Appendix P.
- Natural Resources staff established a 100-acre prime habitat golden-cheeked warbler plot on Vista Point in FY2009 and completed 60 hours of monitoring effort in the spring of 2009. Data collection is summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

LAKE TRAVIS UNIT

The Lake Travis Unit, located in the Cypress Creek Macrosite, was established in FY09 with the addition of the Lucas tract and also includes the Lake Perspectives and Romberg tracts.

Lake Perspectives (TC)

Travis County acquired the 124-acre Lake Perspectives tract in FY99. Management activities taking place in FY08 consisted of:

- Natural Resources staff completed 60 hours of golden-cheeked warbler monitoring on the 100-acre prime habitat study plot on this tract. Data collection is summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L.
- White-tailed deer population management continued on the Lake Perspectives tract. The *2009 Summary of Wildlife Management Activities on Travis County Managed Tracts of the Balcones Canyonlands Preserve* is attached as Appendix P.
- Staff completed interior and boundary surveys of the property throughout FY09 and determined that all of the fencing along Bullick Hollow Road needs to be replaced. Replacing the fence in this location will facilitate keeping trash from the roadway from entering the preserve property.
- Travis County's Volunteer Coordinator led a group of nine volunteers in April 2009 that helped collect 20 bags of trash along a portion of this boundary.
- Travis County attorneys and permitting staff are working to resolve an ongoing issue of a blocked waterway due to a dam constructed by a neighboring property owner.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Lucas (TC)

Travis County acquired the 278-acre Lucas tract in November 2008. This property has an abundance of golden-cheeked warbler habitat as well as several prominent karst features known to be occupied by endangered cave invertebrates, namely the Bee Creek harvestman (*Texella reyesi*) and the Tooth Cave spider (*Neoleptoneta myopica*). These species are both found within New Comanche Trail Cave, one of the 62 caves designated for protection under the BCCP. Endangered cave invertebrates have also been documented by Zara Environmental Inc. within three other karst features that are not part of the 62 BCCP caves, (Geode Cave and karst features F11 and F12). Habitat management activities in FY09 included:

- Golden-cheeked warbler surveys were performed and results are summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L.
- Travis County, Texas Department of Agriculture licensed, staff worked to identify and remove invasive and exotic plant species, including chinaberry (*Melia azedarach)* and heavenly bamboo (*Nandina domestica).* For a full description of invasive and exotic plant management activities, please see Appendix O, *Vegetation Management Activities on Travis County Balcones Canyonlands Preserve during FY2009.*
- Boundaries were surveyed to assess concerns such as the need for new fencing, trash and dumping on the tract, drainage problems, and trespass issues.
- Most known roads, trails and prominent features were GPSed.
- Black-capped vireo presence/absence surveys were performed and results are summarized in Travis County's *Monitoring of the Black-capped Vireo, 2009* report, attached as Appendix K.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Romberg (TC)

The 40-acre Romberg tract has been a portion of Travis County's BCP land since the permit's inception in 1996. Habitat management activities in FY09 included:

- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

NORTH LAKE AUSTIN MACROSITE

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

Franzetti (TC)

Travis County accepted transfer of a conservation easement from the National Fish and Wildlife Foundation in FY05. This tract is required to be protected under a 10(a) permit # TE-016491-0 originally issued to Mr. Franzetti but amended slightly with USFWS by Mr. Slover, the current conservation easement tract owner. This 54 acre tract contains habitat for golden-cheeked warblers.

- Monitored construction of new house on the ¾ ac. permitted home site and roadway.
- Documented and discussed with owner the unauthorized clearing of preserve land and planting of non-native grass adjacent to the driveway. Homeowner was required to

remove all non-native planting through the work of a paid contractor. Oversaw restoration of with native grasses, shrubs and trees.

- Worked with CE owner on remediation of drainage problems related to road construction.
- Coordinated with CE owner and USFWS on issue of house clearing area larger than CE or 10(a) permit allows.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Greenshores (TC)

A Conservation Easement was conveyed to Travis County in accordance with the terms and conditions of USFWS 10 (a) permit # TE-074582-0 in April 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 FY09 included:

- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- Continued negotiations on effort to change Conservation Easement to deeded fee simple to Travis County. Negotiations became delayed while USFWS is discussing several issues with the CE owner.
- Staff continued negotiations with the developer to finalize long-term protection efforts for an adjacent area of additional preserve land adjoining more development under a separate 10(a) permit.
- Coordinated with owner developer and USFWS on illegal clearing on pipeline through the tract, erosion damage, and other unauthorized activities.
- Travis County Texas Department of Agriculture licensed staff worked to identify and remove invasive and exotic plant species at Vireo Ridge, including tree of heaven (*Ailanthus altissima*) and heavenly bamboo (*Nandina domestica).* For a full description of invasive and exotic plant management activities, please see Appendix O, *Vegetation Management Activities on Travis County Balcones Canyonlands Preserve during FY2009*.
- Tract was surveyed for signs of oak wilt, with no oak wilt observed.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Gray Mountain (TC)

Travis County accepted a Conservation Easement in accordance with the terms and conditions of USFWS 10 (a) permit # TE-037888-1 in May 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 Gray Mountain tract in FY09 included:

- Travis County staff coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Hereford (TC)

Travis County acquired the 10-acre Hereford tract in 2006. Management of this tract in FY09 consisted of:

- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Steiner Ranch Preserve (TC)

The Preserve tracts of Steiner Ranch comprise 819 acres in five separate parcels managed by Travis County since FY01. Though located within the North Lake Austin Macrosite and contiguous with other BCP lands, the acreage is outside of the original preserve Acquisition Area and the acreage has yet to be allowed by USFWS to be credited towards BCP land acquisition goals.

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 specific approved trails for hiking, jogging, and nature viewing from maintained trails, and is 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:

- County Natural Resources and Law Enforcement staff provided Steiner Ranch Homeowners with guided tours through Preserve areas.
- Travis County staff met with and coordinated landowner activities in accordance with the terms and conditions of the Conservation Easement.
- Golden-cheeked warbler surveys were performed on J-Canyon and results are summarized in Travis County's *Monitoring of the golden-cheeked warbler (Dendroica chrysoparia) in western Travis County, Texas: 2009 field season* report, attached as Appendix L.
- Black- capped vireo presence/absence surveys were performed within the northern two sections (Vireo Management Area and North East tracts) and results are summarized in the Travis County's *Monitoring of the Black-capped vireo, 2009 Field Season* attached as Appendix K.
- Travis County staff met with and reviewed power line and infrastructure maintenance activities performed by multiple utility providers.
- Volunteers from the Steiner Ranch community (predominately Boy and Girl Scouts) assisted in a trash pick up and removal of over 1500 golf balls from the J-Canyon tract.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

PEDERNALES RIVER MACROSITE

Hamilton Pool Preserve (TC)

Public uses permitted prior to Hamilton Pool Preserve's dedication as a portion of the BCP continued through FY05. 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 FY09 included:

- Travis County Parks staff with help from Natural Resources staff actively engaged 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 2009 Field Season* report, attached as Appendix L.

- 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 O.
- Brown-headed cowbird trapping continued at Hamilton Pool Preserve, and results are found in the *2009 Wildlife Management Summary for Travis County BCP Lands*, attached as Appendix P.
- NR staff worked with Parks staff on plan for removal of some junipers on the Preserve and began implementing the plan.
- Staff assisted with Parks staff on removal of feral hogs.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

SOUTH LAKE AUSTIN MACROSITE

Medway (TC)

The Medway tract consists of 345 acres acquired by Travis County in 2004. The tract is contiguous with the City of Austin's Double J&T Preserve and is located in the South Lake Austin Macrosite. Management activities on Medway in FY09 consisted of:

- Public outreach efforts continued with the surrounding landowners and users of the two road easements that cross the preserve that are used by preserve neighbors to reach their homes.
- Completed a 100-acre transitional plot survey for collection of long-term distribution and abundance data for the golden-cheeked warbler. Intensive data collection and monitoring on the study plot continued, and results are summarized in Travis County's *Monitoring of the golden-cheeked warbler 2009 Field Season* report, attached as Appendix L.
- Oak wilt was identified by City of Austin staff on the Double J&T tract that reached onto the Medway tract. The entire area was trenched by the City of Austin in an effort to contain the oak wilt's spread and was monitored by TC staff.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

Chandler (TC)

The 29 acre Chandler tract was deeded to Travis County in April 2008 by Toll Brothers Inc. through the BCCP "Land-in-Lieu of Fees" Provision.

- As noted in the Annual Report for FY08, a wall blew out of the side of the Vistas at Lakeway retention pond and caused serious erosion on the Chandler tract. Travis County staff worked with Toll Brothers Inc. in FY09 to complete restoration work on this area. The following were completed:
    - TC approved the restoration plan by Toll Brothers Inc., several on-site meetings,
    - continued to monitor the area after restoration completed.
- Did a fence assessment in preparation for construction of new fencing. Fencing will be installed along the boundary of Chandler during FY10.
- Routine patrols and surveys of main roads and perimeter fencing to look for signs of trespass, drainage problems, vandalism and/or dumping.

WEST AUSTIN MACROSITE

Wild Basin Wilderness Preserve (TC and Committee For Wild Basin Wilderness Inc.)

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. The 6 ac. parking lot and Visitor Center site are owned by the non-profit plus a 60 ac. non-attached mitigation area on the Preserve north side. Details concerning the management of Wild Basin Wilderness Preserve are reported in Appendix Q.

- Attended Land Management Meetings and provided wildlife management consultation for WB staff.
- Staff assisted with patrolling the fenced boundaries, non-native plant removal projects, reviewing proposed changes in trail location and management, and coordinated on Scientific Research approvals.
- Coordinated with St. Edwards University on the upcoming changes for the non-profit to be dissolved and the TC contractual obligations transferred to the University.

PACE BEND PARK (TC)

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.

- White-tailed deer management was initiated at Pace Bend Park, and is reported in the Summary of Wildlife Management Activities attached as Appendix P.

Travis County Law Enforcement and Preserve Patrol Summary

Management of Preserve lands to meet the terms and conditions of the BCCP permit in a rapidly developing urban interface presents unique challenges for public agencies. Many BCP tracts present management challenges ranging from illegal trespass (including pedestrian, mountain bike, all-terrain vehicle, and motorcycle traffic) to illegal dumping and poaching of native wildlife on preserve lands to the obligation to provide monitoring and protection for cultural sites of historic significance.

Travis County employs multiple approaches to address these management concerns. Travis County's Parks Division employs Rangers that are commissioned Texas Peace Officers operating as Deputy Sheriffs under the Travis County Sheriff's Office (TCSO) and certified by the Texas Department of State Health Services as Emergency Medical Technicians. 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, human safety, and the natural environment. Their primary duty is to provide the law enforcement on all Travis County owned or managed properties including County Parks and County BCP tracts.

A Preserve protection and patrol position was created in FY08 and the work continued in FY09. Though not a commissioned Texas Peace officer, this Natural Resource Technician (Preserve Patrol) provided full-time monitoring and surveillance of County managed preserve lands and served as the primary liaison between the Travis County Natural Resources staff and County law enforcement staff (Travis County Park Rangers or Sheriffs Officers). The Natural Resource Technician provided daily patrols of County BCP boundaries and Preserve interiors, helped with neighbor-related issues, and addressed protection issues such as trespass, vandalism, and dumping, and also assisted with other management tasks.

The Natural Resources Technician and Travis County Park Rangers cooperated to protect the significant natural and cultural resources on County owned and managed preserve lands.

Trespass onto posted preserve lands is the most common illegal activity on County BCP lands. When trespassers are apprehended (by Rangers) on BCP property they are

identified per state law and TCSO policy, questioned regarding their activities, issued a Criminal Trespass Warning (if the incident is the 2nd time the trespasser has been caught), and then escorted from the property. In FY09 there were 15 documented trespasser encounters incidents. Rangers also investigated five incidents of Criminal Mischief and at least a dozen occurrences of neighbor-related issues, including illegal dumping and encroachment.

Patrols by both Natural Resources Technician and Rangers of BCP boundaries and tract interiors are conducted to provide a visible County presence, thereby minimizing the incidence of unauthorized activities. These patrols also allow for regular monitoring and assessment of County property, such as boundary fencing and equipment. 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.

In FY09 Travis County Rangers assisted Natural Resources staff with education programs, monitoring and removal of non-native animal species, trail mapping, and protection of cultural resource sites. Rangers assisted with educational tours and programs including presentations for various Homeowners Associations, the faculty and staff at Concordia University and with the BCP Hike and Lecture Series. Rangers also assisted with presentations for three elementary schools and one Boy Scout troop.

Rangers assisted staff with securing physical addresses and address signage for the gates to all Travis County BCP properties, and distributed address maps and contact lists to emergency response agencies in an effort to facilitate interagency cooperation and reduce response times to incidents within the BCP. Rangers continued to work with county authorized feral hog trappers in an effort to reduce the existing population on BCP and Park properties.

In FY09, the effort to train additional Park Rangers continued that will enable them to provide assistance with resource protection, law enforcement activities, and public education, on the Preserve. The intent of this training is to ultimately train all Park Rangers to patrol and respond to BCP properties. This effort included development of a Ranger Training Manual, Ranger maps, Training Scenarios, Reporting documents, and Standard Operating Procedures for Patrolling and Inspections.

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 to exist on 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 Education and Outreach Activities

Volunteer Program Activities

Travis County BCP hired a Volunteer Coordinator and started a volunteer program during FY09. Planning and development was the focus of the new volunteer program through FY09. Staff coordinated with Travis County attorneys to develop a Volunteer Handbook. This handbook for volunteers describes the history and purpose of the BCP, volunteer opportunities, policies and guidelines, as well as volunteer feedback and recognition. Staff developed and wrote Volunteer Job Descriptions. Staff, with assistance

from Travis County attorneys, updated the County's Volunteer Release of Liability and Indemnity Agreement form and created new forms for minor volunteers and groups.

The Travis County Volunteer Website and a BCP Facebook Page was planned and activated. Staff planned volunteer recruitment and interview strategies. Volunteer Application form and spreadsheets for tracking volunteer information were developed. Staff produced ideas for volunteer projects. Forms for volunteer identification, parking, and sign-in forms were created. Staff ordered and inventoried volunteer supplies. A check-out form was created to allow volunteers to borrow Travis County property. Staff developed plans and checklists for both guided and independent volunteer projects. Staff coordinated with County attorneys to develop a Volunteer Service Agreement. Staff planned and developed forms for reporting incidents and conflict resolution. Travis County staff planned for volunteer safety by coordinating with risk management and safety specialists. A safety training program and checklist were created.

Travis County partnered with Keep Austin Beautiful and American Youth Works for two volunteer projects. Volunteers associated with Keep Austin Beautiful cleaned up trash from the Lake Perspectives tract of the preserve. American Youth Works volunteers restored remnant native prairie areas, managed woody species encroachment, and assisted with black-capped vireo habitat manipulation and restoration activities.

Education and Outreach Activities

Travis County's Balcones Canyonlands Preserve education and outreach efforts in FY 09 included:

- Interpretation of research data and information about the BCP and endangered species for the general public and interested groups through preserve tours, workshops, special presentations and exhibits.
- The 2009 BCP Hike and Lecture Series provided monthly guided hikes for the public to visit and learn about the preserve and management of the plants and animals that the preserve protects. Travis County participated in or hosted a number of events throughout the year, including three lectures and four hikes. Topics of first lecture called "Across the Fence" included impacts of the red imported fire ant, white-tailed deer, feral hogs, and invasive plants. Speakers from the University of Texas, Lady Bird Johnson Wildflower Center, and Texas Parks and Wildlife Department informed the public about these urban interface issues. The topic for the second lecture was habitat restoration. Speakers from the Ladybird Johnson Wildflower Center, City of Austin, Wild Basin, and Texas State University informed guests about fundamentals

of ecological restoration, invasive plants, wildscaped communities and bird diversity. The third lecture focused on changes of black-capped vireo habitat through time and included a tour of the City of Austin's Vireo Research Area. Travis County staff also led interpretive educational hikes at the Crossings, Canyon Vista, Jollyville Unit, and Wild Basin Preserve.

- Travis County staff provided neighborhood tours to educate our neighbors and promote understanding and improve communication. Neighbors in the Steiner Ranch and Grandview Hills neighborhoods toured the preserve.
- Numerous opportunities were provided for college and university researchers and field classes to utilize the BCP as a living classroom. In FY 2009 several universities had projects or fieldwork on Travis County BCP lands including: Texas State University at San Marcos, Texas A&M University at College Station, the University of Texas at Austin, and Kilgore College in east Texas. Travis County coordinated with Concordia University to evaluate education and research issues on the preserve. Two scientists from Austin, Texas, one independent researcher and one scientist from the Cave and Endangered Invertebrate Research Laboratory of SWCA Environmental Consultants, collected invertebrates at the BCP for research.
- County BCP staff continues data collection and scientific study of the species protected by the BCCP, as well as impacts of land management practices both on the preserve and on surrounding non-protected habitats. Travis County staff led a tour of black-capped vireo restoration areas at the Jollyville Unit for area land managers including BCP partners and at the Balcones Canyonlands National Wildlife Refuge. Research data was presented for interested groups and at professional and scientific conferences, such as the Karst Conservation Initiative.
- Travis County and the City of Austin presented a poster describing management of endangered karst invertebrates on the BCP for the International Congress of Speleology. The poster described biological monitoring methodology and results, as well as threats to endangered karst invertebrates and research needs.
- The County attempts to share information with the public through participation in community events throughout the area. In FY 09, County BCP staff participated in the annual "Austin Cave Festival and Western Oaks Karst Preserve Open House" and a guided interpretive hike at the Crossings Fifth Anniversary Celebration.
- Travis County Natural Resources staff works closely with interested clubs and organizations to educate and inform them about the BCP. Travis County staff presented information to the Leisure Activity Mature People Society at the University of Texas and offered a tour to members at the Wild Basin Wilderness Preserve. County BCP staff led a tour of golden-cheeked warbler habitat and black-capped

vireo restoration areas at the Jollyville Unit for members of the Texas Ornithological Society.

- 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, boy and girl scouts, and extra-curricular student programs such as summer camps helps to spread the word about the BCCP and the importance of protecting the unique native plants and animals found in our community. Travis County staff attended meetings of the Ecology Club at Laurel Mountain Elementary to inform students and their parents about the BCP, endangered species, and local flora and fauna. Staff participated in Young Scientists Day Travis Heights Elementary. Cub Scouts toured the Canyon Vista where Travis County staff educated them about native wildlife.
- One important component of outreach was informing, evaluating, and problem-solving issues such as alternate mitigation opportunities, acquisition strategies, and cooperative land management strategies with individual landowners, developers and others. Staff educated the public about wildlife valuation and endangered species. Staff provided information about the BCP and a tour of the preserve to urban biologists from Texas Parks and Wildlife Department at their annual meeting. Staff informed San Marcos officials about BCP management issues.
- County BCP Staff regularly coordinates and advises on land and habitat management topics with local landowners such as the Committee for Wild Basin Wilderness, the Steiner Ranch Trails Committee, and the Canyon Mesa Homeowners Association.
- 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.
- County Staff provided presentations for the following Homeowners Associations: Canyon Mesa, Deer Creek, Preston Oaks, and Steiner Ranch. Presentations also were provided for the Oak Hill City Council, City of Austin's Environmental Board, and others.
- BCP Staff is regularly called upon to describe cooperative approaches to compliance with the Endangered Species Act and discuss Habitat Conservation Planning for interested parties. In FY 2009 Travis County staff met with as officials from Hays and Bexar Counties to discuss Regional Habitat Conservation Plans.

- County BCP Biologists provided training regarding rare plants, endangered species, and natural and cultural resource protection for other County Departments, including staff responsible for assisting in management efforts on County Parks and Open Space lands.
- Travis County staff updated the BCCP Public Participation Process brochure based on CAC recommendations for the fee schedule.

THE LOWER COLORADO RIVER AUTHORITY

MANAGEMENT HIGHLIGHTS - FY 09 (October 2008-September 2009)

Management activities for the three LCRA preserves continued to focus on natural resource research and management, access management, and stewardship promotion.

Westcave

- Preserve staff hosted 9576 students, teachers, and visitors and during the 2008-2009 year

- Golden-cheeked warbler surveys were conducted at Westcave by contract and LCRA staff biologists this year. A presence/absence survey was conducted following USFWS protocol on the preserve and 44 acres recently added to the preserve. Six males and two females were observed. Two of these males were observed on the new property. These results match past survey results conducted on the original 25 acre parcel. This 44 acre addition has not yet been added to the acres credited to the requirement of the BCCP 10(a) permit.

McGregor

- Golden-cheeked warbler surveys were conducted at McGregor by contract and LCRA staff biologists this year. Two, 100-acre plots were surveyed according to BCCP protocol. Approximately thirteen territories were observed in the prime habitat plot and five territories were observed in the transitional habitat plot.

- Students from the Wildlife and Fisheries Department at Texas A&M completed the second year of a golden-cheeked warbler project observing habitat use patterns utilizing point count surveys.

- Deer harvest activity was limited at McGregor during the FY09 season. One deer was taken off the McGregor preserve during this time period.

- LCRA staff continued to work with the Comanche Trail Community Association (CTCA) to promote local support of land management, animal management, and stewardship efforts on the preserve. The permit renewal training was held November 11 and 14, 2009 for new or returning CTCA McGregor Good

Neighbor Program permittees. There are currently 42 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.

- 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.

Wheless

- LCRA completed 9000' of high fence on the south side of the property with additional fencing planned.

- Golden-cheeked warbler surveys were not conducted at Wheless this year.

- Students from the Wildlife and Fisheries Department at Texas A&M completed the second year of a golden-cheeked warbler project observing habitat use patterns utilizing point count surveys.

- Biologists from the City of Austin (COA) intended to continue surveys on Jollyville salamanders at Long Hollow Creek, however none were conducted this year due to lack of flowing water.

- LCRA staff continues to monitor Wheless for introduced plant species as part of the invasives control program.

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, installing perimeter signs at strategic locations to discourage trespass, and monitoring Oak Wilt.

THE NATURE CONSERVANCY OF TEXAS

Barton Creek Habitat Preserve

Science / Stewardship

Annual surveys (point count) were completed for the black-capped vireo (BCVI) and golden-cheeked warblers (GCWA) to determine population densities. Texas A&M University conducted transects surveys in a study to determine the impact of future expansion/construction of Hwy 71 on the GCWAs. In FY09, they noted approximately 80 GCWA territories and three BCVI territories on the preserve; one other BCVI was

heard in a new location on the preserve but not found again. Only one male BCVI had been documented for the 2008 season.

Brown-headed cowbirds are being removed from the preserve through shooting.

Hunting is being conducted on the preserve as in previous years, preserve staff and TPWD public lands lottery hunters are helping to control the population of white-tailed deer in an effort to reduce browse and increase recruitment of Texas Oaks.

Austin Youth River Watch continues to monitor water quality in Barton Creek; results have not found any anomalies.

The Lady Bird Johnson Wildflower Center has continued to collect seeds for the Millennium Seed Bank Project.

Although no prescribed fires have occurred on the preserve in 2009, four units totaling approximately 300 acres are ready to be completed during the winter season.

Education/Outreach/Volunteers

Numerous groups have used the preserve for conservation education, and volunteer projects. Two Eagle Scout projects built boardwalks over uneven terrain to improve walking access from the parking lot to the pavilion. During 2009, we had approximately 706 visitors on the preserve for volunteer, educational, and research purposes.

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 E.

TRAVIS AUDUBON SOCIETY

Baker Sanctuary

Golden-cheeked Warbler Survey

Golden-cheeked warblers tend to flourish throughout much of Baker. The 100-acre plot in the southern half of the sanctuary was surveyed in the spring. Some of the numbers were lower this year than last, with 14 in-plot males, four edge-of-plot males, six females, and seven fledglings in four territories (see Appendix J for full report).

Deer Management

The Sanctuary was closed on October 24th, 2008 for the annual white-tailed deer harvest and re-opened on January 31, 2009. There were a total of 8 hunters on Baker Sanctuary for the –FY09 white-tailed deer season: Doran Bradberry, Fred Helms, Kevin Connally, Parish Shelly, Robert Weise, Stacy Harding, Marcie Wilcox and John Wilcox. A total of 18 deer were harvested during the 2008 – 2009 season; nine does, three spikes, and six bucks. The Sanctuary closed for the annual deer harvest again on October 24th, 2009.

The "Hatfield" Tract is a 50 acre tract deeded to the Travis Audubon in 1986 with the following stipulation: "it will never lease any portion of the property for hunting or trapping purposes"; as a result, no hunting took place on this tract during the 2008 – 2009 hunting season. Hunting lease sites #8 and #9 were closed on a permanent basis in October 2009 at the advice of the hunting coordinator, Doran Bradbury, because of their location to the steward's headquarters.

Vegetation Management

The Baker Sanctuary steward, with the support of the Sanctuary Committee, will conduct a habitat assessment for the Baker Sanctuary in 2010. The purpose of this habitat assessment is to develop a comprehensive vegetation management plan to better maintain golden-cheeked warbler habitat integrity and preserve habitat diversity. The assessment will evaluate and document existing golden-cheeked warbler habitat suitability and habitat restoration needs. The primary goals are to protect, maintain and enhance existing suitable habitat and improve and restore degraded habitats; this includes protecting the native prairie species and preserving the semi-open grasslands, as described in Tier III of the land management plan for Baker Sanctuary.

Baker Sanctuary is composed mainly of dense mature oak-juniper woodlands interspersed with pockets of open and semi-open grasslands; there are nine Fire Behavior Prediction System (FBPS) fuel models that correspond with the habitats within Balcones Canyonland Preserve and a fire management plan based upon these prediction systems is located in the Baker Sanctuary headquarters and available to assist the steward in monitoring for fire safety and response readiness. The Baker Sanctuary is also equipped with a wildfire calldown list and basic wildfire response tools to help better expedite early response to wildfires. On April 9th, a grass fire, most likely caused by a dry lightning strike, burned approximately seven acres of the Ruth Fredericksen Tract. The wildfire was quickly dispatched by firefighters from North Lake Travis Fire and Rescue, US Fish and Wildlife Service and Cedar Park. The quick response to the wildfire demonstrates the effectiveness of the Baker Sanctuary wildfire management plan.

Cowbird Trapping

John Wilcox had difficulty in obtaining BHCO decoys so he began the BHCO trapping season on April 11 with five BHCO decoys (three males and two females) donated by the City of Austin BCP staff in Trap #1 (since John Wilcox left the position of Land Steward in late May, he never opened Trap #2). Because John Wilcox left the sanctuary in late May he shut down Trap #1 on May 6th and captured a total of five male and 14 female BHCOs. Less initial decoy stock, Mr. Wilcox trapped a total of 14 BHCOs. Mr. Wilcox had no non-target captures and no non-target fatalities.

Exotics Control

- Sanctuary steward Mike Powers recorded several sightings of feral hogs during the summer of 2009; no feral hogs were trapped.
- Volunteer Galen Herz and Mike Powers removed two chinaberry trees, approximately 12 feet tall, located in the Fredericksen tract.
- Volunteers Scott Lenharth and Rachel Cable installed native grasses in a plot immediately west of the residence and removed 50 Johnson grass plants from residence landscape.

Jollyville Plateau Salamander Research

No research was done at Baker Sanctuary during 2009; because of unusually dry conditions this summer, Baker springs was dry each time a salamander survey was scheduled.

FY 2009 Research or Investigative Reports

(See Appendix R, Research Reports for complete reports)

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Bendik, Nathan, 2009. Jollyville Plateau Salamander Interim Report, 2009, for BCP. City of Austin Watershed Protection

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Hallen, Joel. 2009. Research on the order Palpigradi.

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McCutchen, Lynn. 2009. DNA Analysis and Behavioral Studies of the Palpigrade Prokoenenia wheeleri .

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Paquin, P., R.A. Anderson, 2009. The first troglobitic weevil (Coleoptera: Curculionidae) in North America? Description of a new eyeless species from Central Texas caves. Texas Memorial Museum Speleological Monographs, 7. Studies on the cave and endogean fauna of North America, V:115-123.

Paquin, P., N. Dupérré, J.R. Reddell, 2009. A new troglophilic *Agyneta* from Colorado, the first description of the female of *Agyneta llanoensis* from Texas caves, and a classification of North American cave Linyphiidae (Araneae) as troglobites or troglophiles. Texas Memorial Museum Speleological Monographs, 7. Studies on the cave and endogean fauna of North America, V:37-55.

Paquin, P., N. Dupérré, 2009. A first step towards the revision of *Cicurina*: redescription of type specimens of 60 troglobitic species of the subgenus *Cicurella* (Araneae: Dictynidae), and a first visual assessment of their distribution. Zootaxa 2002:1-67.

Reidy, Jennifer, 2009. Density of Golden-cheeked warblers on Balcones Canyonlands Preserve 2009 Progress Report. University of Missouri.

Simper, William S. 2009. Black-capped vireo (Vireo atricapilla) color banding and surveying on the Balcones Canyonlands Preserve and the Balcones Canyonlands National Wildlife Refuge: Project Year 2. Texas State University.

Slade, Raymond M. 2009. Water data collection in Bull Creek basin pertinent to the Jollyville water transmission line.

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