Balcones Canyonlands Conservation Plan

2010 Annual Report

(October 1, 2009 – September 30, 2010)

USFWS Regional Section 10(a) 1B Permit No. PRT-788841

Travis County – City of Austin

Submitted by

The Balcones Canyonlands Conservation Plan

Coordinating Committee

January 2011

TABLE OF CONTENTS

BACKGROUND **4**

PERMIT REQUIREMENTS **4**

DEVELOPMENT ACTIVITY WITHIN THE PERMIT AREA **7**

MITIGATION CREDIT BALANCE **7**

PARTICIPATION CERTIFICATE ACTIVITY **8**

FUNDS COLLECTED THROUGH PARTICIPATION CERTIFICATE AND USFWS DIRECTED MITIGATION FEES **9**

FUNDS EXPENDED FOR LAND ACQUISITION **10**

FUNDS EXPENDED FOR OPERATIONS AND MAINTENANCE **13**

UPDATED MAP OF LANDS DEDICATED TO THE BALCONES CANYONLANDS PRESERVE **14**

FY 2010 RESEARCH OR INVESTIGATIVE REPORTS **14**

PUBLIC USE, HABITAT AND WILDLIFE MONITORING, AND MANAGEMENT ACTIVITIES OCCURING WITHIN THE BALCONES CANYONLANDS PRESERVE **14**

CITY OF AUSTIN **14**

BARTON CREEK MACROSITE 18

BULL CREEK MACROSITE 18

CYPRESS CREEK MACROSITE 20

NORTH LAKE AUSTIN MACROSITE 20

SOUTH LAKE AUSTIN MACROSITE 21

WEST AUSTIN MACROSITE 22

CITY OF AUSTIN OUTREACH PROGRAM 22

TRAVIS COUNTY **24**

TRAVIS COUNTY LAW ENFORCEMENT AND PRESERVE 28

TRAVIS COUNTY BCP VOLUNTEER AND OUTREACH PROGRAMS 29

THE LOWER COLORADO RIVER AUTHORITY **32**

THE NATURE CONSERVANCY OF TEXAS **33**

TRAVIS AUDUBON SOCIETY **34**

LITERATURE CITED 35

LIST OF TABLES:

Table 1. Endangered Species and Species of Concern Covered by the Balcones Canyonlands Conservation Plan 5
Table 2. Infrastructure Projects Mitigated Through the Use of Mitigation Credits During FY10 by Participating Agency 8
Table 3. FY10 Participation Certificate Summary 9
Table 4. Summary of BCCP Incidental "Take" Acres, 1996 to 2010 9
Table 5. USFWS HCP Land Acquisition Grant Awards Received by the Permit Holders, 1997-2010 11
Table 6. Travis County and City of Austin FY10 BCP Land Acquisitions 12
Table 7. Annual FY09 and FY10 BCP Budgets (excluding land acquisition costs) for Permit Holders, the Managing Partner, and Cooperating Entities with Summary of Total Budgets since Plan Inception 13
Table 8. Management Status of City of Austin BCP Properties 15
Table 9. City of Austin Monitoring and Management Activities on BCP Tracts within the Bull Creek Macrosite 16
Table 10. City of Austin Monitoring and Management Activities on BCP Tracts within the Barton Creek, Cypress Creek, North Lake Austin, South Lake Austin and West Austin Macrosites 17
Table 11. City of Austin BCP Outreach Activities for FY10 24
Table 12. Monitoring and Management Activities on Tracts Owned by Travis County within the Bull Creek, North Lake Austin, South Lake Austin, West Austin, and Pedernales River Macrosites 25
Table 13. Monitoring and Management Activities on Tracts Owned by Travis County within the Cypress Creek Macrosite 26
Table 14. Number of Volunteer Hours Contributed to Travis County's BCP during FY10 29

LIST OF APPENDICES:

Appendix A – City of Austin Development Permits West of Loop 1 October 1, 2009 to September 30, 2010
Appendix B – Travis County Development Permit Issued in the BCCP Permit Area for 2010
Appendix C – Balcones Canyonlands Preserve Properties by Macrosite (FY2010)
Appendix D – Balcones Canyonlands Preserve Properties by Management Agency (FY2010)
Appendix E – Balcones Canyonlands Preserve System Map (FY 2010)
Appendix F – City of Austin 2010 Golden-cheeked Warbler and Black-capped Vireo Monitoring Program
Appendix G – Balcones Canyonlands Preserve Karst Monitoring and Management FY2010 Annual Report
Appendix H – FY 2010 Report on Monitoring of the Golden-cheeked Warbler (Dendroica chrysoparia) on Travis County's Balcones Canyonlands Preserve
Appendix I – FY 2010 Report on Monitoring and Management of the Black-capped Vireo (Vireo atricapilla) on Travis County's Balcones Canyonlands Preserve
Appendix J – Travis County FY2010 Jollyville Plateau Salamander Monitoring Report
Appendix K – Travis County FY2010 Report of Wildlife and Non-native Management Activities on the Balcones Canyonlands Preserve
Appendix L – Wild Basin Wilderness Preserve 2010 Annual Report
Appendix M – 2010 Survey Report, Wheless Preserve, Travis County, Lower Colorado River Authority
Appendix N – Travis Audubon Society Baker Sanctuary 2010 Annual Report
Appendix O – Research Reports
1. **Bendik, Nathan F.** *Jollyville Plateau Salamander Interim Report, 2010, for Balcones Canyonlands Preserve.* City of Austin**.** Watershed Protection. 2010.

2. **Black & Veatch.** *Geotechnical cores and associated Piezometers pertinent to the Jollyville Transmission Main (JTM).* 2010.
3. **Glick, Roger.** *Storm Water Monitoring in Upper Bull Creek.* City of Austin.
4. **Hallen, Joel.** *Collection and Research of Arachnid, Palpigradi, Prokoenenia wheeleri.* 2010.
5. **Hunt, Jason W.** *Occupancy and Abundance of Golden-cheeked Warblers (Dendroica chrysoparia) on the Balcones Canyonlands Preserve.* Texas State University. August 2010.
6. **Ott, James R. & Floyd W. Weckerly.** *Progress Report #1: Understanding sources of variation in detectability among sites and across the breeding season in golden-cheeked warblers (Dendroica chrysoparia).* Texas State University. November 20, 2010.
7. **Ott, James R. & Floyd W. Weckerly.** *Progress Report #2: Singing Behaviors of Golden-cheeked Warblers as a Function of Territory Density: the Ecological Basis of the Relationship Between Population Density and Warbler Detectability.* Texas State University. November 21, 2010.
8. **Quinn, Mike.** *Survey of arthropods in typical Golden-cheeked Warbler breeding habitat in the Wild Basin Wilderness Preserve, Austin, TX.* November 24, 2010.
9. **Sperry, Jinelle.** *Effects of deer overabundance on avian abundance, diversity, and reproductive success in Central Texas.* 2010.
10. **Weckerly, Floyd W.** *Karst Invertebrate Species Survey Protocols and Trend Analyses at Balcones Canyonlands Preserve*. Texas State University. 2010.
11. **Wilkins, Neal, Julie Groce & Neil Ford.** *Freshwater mussel surveys within Travis County properties*. Texas A&M University. November 2010.
12. **Zara Environmental LLC.** *Population status of karst invertebrates in the Balcones Canyonlands Preserve.* 2010.
13. **Cowan, Brian.** *Temporal and Spatial Variability of Cave-air Carbon Dioxide in Central Texas, USA.* University of Texas, Austin, Texas. 2010.
14. **Hauwert, Nico.** *Hydrogeologic study of Fossil Garden, No Rent, Weldon, and McNeil Caves.* City of Austin. Watershed Protection Department. 2010.
15. **Simper, William.** *Cost-distance Analysis of Connectivity for an Avian Migrant Inhabiting a Fragmented Network.* Texas State University. 2010.

Background

On May 2, 1996, the City of Austin and Travis County were jointly issued a 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 (USFWS, 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) (USFWS, 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 (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. Additionally, Permit Holders are required to protect and manage populations of canyon mock orange and *Texabama croton*. The Permit Holders are also required to acquire, manage, and/or ensure protection for 35 karst features which support populations of six species of endangered karst invertebrates. An additional 27 karst features are known to harbor 25 karst-specific 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 (USFWS, 1996b).

Agencies or organizations which enter into formal agreements with the Permit Holders in order 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. Endangered Species and Species of Concern Covered by the Balcones Canyonlands Conservation Plan.

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 BCP. These organizations are not considered Managing Partners because no formal agreements with the Permit Holders

have been finalized. The Permit Holders have initiated discussions with other municipalities and stakeholders within the permit area about joining the effort to achieve the goals of the BCCP through Managing Partner Agreements. The Permit Holders hope to forge new agreements securing protection 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 their 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 and 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 entities participating through the BCCP have met their obligations under the Act and may proceed with development under the terms of their respective Participation Agreements. Those agencies and landowners 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 which provides the following:

- 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 BCP operations and maintenance
- an updated map of BCP lands
- a summary of public use and habitat management activities within the BCP
- 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 Fiscal Year 2010 (FY10) details a compilation of Development Permits issued within the City's jurisdiction of the Permit area and can be found in Appendix A.

A summary of development permits issued by the Travis County Permitting office within the Permit area in FY10 is included within Appendix B.

Mitigation Credit Balance

The City of Austin's BCP staff administers the Capital Improvement and Infrastructure Development Mitigation Process 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 BCP managed under the terms and conditions of the Permit and the HCP (U. S. Fish and Wildlife Service, 1996a, 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 (Table 2).

Table 2. Infrastructure Projects Mitigated Through the Use of Mitigation Credits During FY10 by Participating Agency**.**

City of Austin	
Starting City of Austin Balance	**11,582.73 acres**
New preserve additions (credits) – Barton Creek Ventures	13.62
Barclay Road Pump Station - AE	-0.1
Running Deer Maintenance - AE	-0.1
Lakeway LW-2 - AE	-0.1
Parmer Geotechnical Bore Holes - AWU	-0.2
Jollyville Geotechnical Bore Holes - AWU	-0.3
Anderson Mill Estates - AWU	-3.7
Hidden Valley 06 - AE	-0.2
Jollyville Geotechnical Bore Holes - AWU	-0.2
Jollyville Geotechnical Bore Holes - AWU	-0.3
Anderson Mill Pump - AWU	-0.8
Remaining Mitigation Credits	***11,590.35 acres***
Travis County	
Starting Travis County Balance	3038.0 acres
New preserve additions (credits)	477.1
Remaining Mitigation Credits	***3515.1 acres***
Lower Colorado River Authority (LCRA)	
Starting LCRA Balance	2,487.2 acres
Remaining Mitigation Credits	***2,487.2 acres***

Participation Certificate Activity

Travis County's Natural Resources Department administers the BCCP Public Participation Process on behalf of the BCCP Coordinating Committee and issues Participation Certificates for cooperating landowners within the Permit area. Descriptions of participation categories are defined in the interlocal agreement which is entitled "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 FY10, nine Participation Certificates were issued (Table 3); one for commercial use, four for subdivisions, one as a single family, and three managed under the City of Austin's Infrastructure process.

Table 3. FY10 Participation Certificate Summary.

Application #	Date	Name	Category	Amount Paid
#0637	11/02/09	R. Pritchard	Commercial	$5,500.00
#0634	12/01/09	R. Hagman	Subdivision	$30,800.00
#0639	02/02/10	L. Williams	Subdivision	$3,300.00
#0640	02/22/10	PEC	Infrastructure	$500.00
#0641	03/04/10	T Bar M Camps	Infrastructure	$550.00
#0645	04/21/10	T. Howland	Subdivision	$17,875.00
#0646	06/16/10	J. Riddle	Single Family	$2,000.00
#0650	08/04/10	PEC	Infrastructure	$3,800.00
#0644	08/04/10	T. Howland	Subdivision	$13,200.00

Funds Collected through Participation Certificate and USFWS Directed Mitigation Fees

A total of $77,525.00 was collected through the sale of Participation Certificates in FY10 (Table 3). These funds were disbursed equally between the Permit Holders on a quarterly basis.

The BCCP 10(a) Permit authorizes 26,753 acres of incidental "take" for golden-cheeked warbler, 1,000 acres for black-capped vireo, and 38,108 acres for karst. Table 4 summarizes the acreage encompassed by Participation Certificate sales or authorized incidental "take" acreage. The associated acreage of fee zones that the Participation Certifications cover within that total cumulative acreage has also been included in Table 4.

Table 4. Summary of BCCP Incidental "Take" Acres**,** 1996 to 2010.

Type	FY10 Acreage Total	Cumulative Acreage Total	Fee Zone Acreage			
			GCWA Zone 1	GCWA Zone 2	BCVI	Karst Zones 1&2
PCs	608	11,856	6,731	4054	177	11,654

Travis County's Tax Benefit Financing Plan is a funding mechanism outlined in the "Interlocal Cooperation Agreement between Travis County and the City of Austin. Implementing the Balcones Canyonlands Conservation Plan Shared Vision" (City of Austin and Travis County, 1995). It is the method Travis County agreed to use for funding land

acquisition and management. In FY10, Travis County's Tax Benefit Financing Plan generated $8,919,442 for Travis County's land acquisition and management projects.

Funds Expended for Land Acquisition

Every year since the inception of the BCCP, the Permit Holders have competed for USFWS Habitat Conservation Plan grants. To date, twelve Land Acquisition Assistance Program awards totaling $81,222,130 have been granted (Table 5). In FY10, Travis County used $7,639,358 of federal and Travis County funds to purchase 369.14 acres of new preserve land (New Life and Spezia tracts).

Table 5. USFWS HCP Land Acquisition Grant Awards Received by the Permit Holders, 1997-2010.

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
2010	$1,330,243	$886,829	$2,217,072	Travis County
Total	**$60,584,037**	**$20,638,093**	**$81,222,130**	

In addition to fee simple acquisitions assisted with grant funds, Travis County also actively pursued 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 $2,752,687 on land acquisition activities and secured 108.01 acres through these non-grant funded protection strategies in FY10. In addition, Travis County acquired the Volente tract which had previously been added to the BCP acreage total under the Grayson-Volente 10(a) permit.

The City of Austin expended a total of $5,505,399 on BCP land acquisition activities and secured the 13.62-acre Barton Creek Ventures tract during FY10. The COA also transferred a 238.00-acre tract formally known as the Water Treatment Plant 4 site to the BCP. This tract is now called the Sam Hamilton Memorial Reserve West tract.

All of the Travis County and City of Austin FY10 BCP land acquisitions are shown by tract in Table 6.

Table 6. Travis County and City of Austin FY10 BCP Land Acquisitions.

Tract	Agency	Date Acquired	Acreage	Total Expenditures*
Karnick	Travis Co.	10-07-09	29.35	$1,042,000
Origer	Travis Co.	10-28-09	12.27	$33,000
Volente Mitigation	Travis Co.	12-23-09	827**	$17,555
Richards	Travis Co.	01-07-10	17.37	$677,600
Barton Creek Ventures	City of Austin	03-26-10	13.62	$5,505,399
New Life	Travis Co.	06-04-10	260.43	$5,264,149
Saldivar	Travis Co.	06-25-10	15.00	$390,000
Lime Creek 25	Travis Co.	07-23-10	25.31	$341,000
Sam Hamilton Memorial Reserve West	City of Austin	07-29-10	238.00	$0
Bender	Travis Co.	08-05-10	8.71	$251,532
Spezia	Travis Co.	09-30-10	108.71	$2,375,209

* Total Expenditures includes land and associated acquisition costs (surveys, environmental site assessments, etc.).
**Volente Mitigation Acreage had already been counted in previous year's BCP total since it is a mitigation requirement of an individual 10(a) permit.

As of the end of the FY10, Travis County managed 5,931 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 owned and managed 13,590 acres of land within the BCP. For a detailed account of all BCP tracts assembled see Appendices C and D.

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 FY10. This Task Group analyzes BCP completion strategies and is developing 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 FY11.

Funds Expended for Operations and Maintenance

In FY10, the Permit Holders, LCRA, TNCTX, and the Travis Audubon Society (TAS) spent $2,366,737 on operation and maintenance of BCP lands (Table 7).

Table 7. Annual FY09 and FY10 BCP Budgets (excluding land acquisition costs) for Permit Holders, the Managing Partner, and Cooperating Entities with Summary of Total Budgets since Plan Inception.

BCP Partner	FY2009	FY2010	Total Budget: 1996 to Present
City of Austin	$1,137,093	$1,295,205	$10,207,735
Travis County	$850,607	$953,659	$6,200,892
LCRA	$215,507	$85,000	$1, 423,579
TNCTX	$10,000	$10,000	$932,000
TAS	$18,800	$22,873	$231,699
TOTALS	**$2,232,007**	**$2,366,737**	**$18,995,905**

The City of Austin spent a total of $1,295,205 for FY10 to fund BCP 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 Austin Water Utility Wildland Conservation Division (AWU) on program administration and support; (2) operation and maintenance expenditures by Austin Parks and Recreation Department (PARD) operations on BCP-designated parkland; or (3) capital improvement project related to offices, and other facilities/infrastructure. The aforementioned expenditures cannot be readily determined from their program budgets.

The Travis County Natural Resources budget for the BCP Program in FY10 was $953,659. This total includes Travis County General Fund expenditures and funds negotiated and received from private 10(a) holders for land managed by Travis County to support ongoing operations and maintenance of County-managed Conservation Easements. This sum does not include administrative, legal, law enforcement support or non-habitat-related operations and maintenance provided by other Travis County Departments. This sum also fails to estimate expenditures by St. Edwards University, 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 of 492 acres to the BCP in FY10, 28,996 of the 30,428 acres of black-capped vireo and golden-cheeked warbler habitat required by the Permit (95%) have been assembled by the Permit Holders with the assistance of cooperating landowners and entities. Additionally, 45 of the 62 caves which are identified to be protected in the permit have been afforded some level of protection. A map illustrating the current status of the Balcones Canyonlands Preserve is enclosed as Appendix E. Summaries of BCP lands sorted by macrosite and managing entity are attached as Appendices C and D, respectively.

FY 2010 Research or Investigative Reports

Research reports for activities that occurred on the BCP are included as Appendices O1 through O15. See the table of contents for a list of appendices which include the author and title of each research report.

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

CITY OF AUSTIN

The following section lists the wildlife and habitat monitoring, management, and public use activities on City of Austin land counted as part of the BCP. The City of Austin's BCP tracts are managed by AWU and PARD with different management responsibilities assigned to each entity (Table 8). PARD operations do not manage for Endangered Species; they perform regular maintenance such as mowing, trash pickup, and some trail management activities. AWU BCP staff provides BCP management activities.

Table 8. Management Status of City of Austin BCP Properties.

Tract	Primary Management Responsibility	Acreage
Upper Bull Creek Unit (Franklin, Hanks, Lanier, COA Canyon Creek plus MUD tracts, Gardens at Bull Creek, Bowman, and Sam Hamilton Memorial Reserve (former WTP 4 "entire tract")	AWU/BCP	1146.50
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	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
Barton Creek Ventures	AWU/BCP	13.62
	AWU/BCP Subtotal	**10,379.64**
Bull Creek District Park, Bull Creek Greenbelt	PARD/BCP	129.48
St. Edward's Park	PARD/BCP	50.00
Barrow Preserve	PARD/BCP	8.00
Emma Long Metro Park	PARD/BCP	950.00
Commons Ford Park	PARD/BCP	115.00
Barton Creek Wilderness Area (Barton Creek Venture)	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	**3,210.36**
	TOTAL ACREAGE	**13,590.00**

Tract specific monitoring and management activities are shown in Tables 9 and 10. More detailed accounts of many of the activities are described in Appendices F and G. Other notable management activities are further described in the next section.

Table 9. City of Austin Monitoring and Management Activities on BCP Tracts within the Bull Creek Macrosite.

	Monitoring and Management Activities on the Balcones Canyonlands Preserve (City of Austin tracts)	Bull Creek macrosite																			
		upper Bull Creek unit								middle unit			lower Bull Creek unit								
		Bowman	Canyon Creek	Canyon Creek MUD tracts 1 to 3	Franklin	Gardens at Bull Creek	Hanks	Lanier	Sam Hamilton Memorial Reserve	Beard Trust	Ivanhoe	Jester Estates Cave Preserve	Barrow Preserve	Bull Ck. Greenbelt	Forest Ridge	Gibson/Nott	Hiller/Hilltop	Jester	Krueger	St. Edwards Park	Stillhouse Hollow	3M
Monitoring Activities	mist-net, band, and spot-map golden-cheeked warblers								X		X				X					X		X
	search for banded golden-cheeked warblers		X	X	X		X		X		X				X		X	X	X	X		X
	spot-map black-capped vireos														X							
	karst faunal surveys			X					X		X	X									X	
	cave cricket exit counts														X							
	jollyville plateau salamander surveys & mark/recapture				X		X	X	X		X		X								X	
	bracted twistflower monitoring																					
	canyon mock-orange monitoring										X											
	vegetation monitoring																				X	
	fuel moisture sampling of junipers																					
	white-tailed deer surveys		X	X	X		X	X	X													
	monitoring of known oak wilt centers		X				X															
Management Activities	deer control		X		X			X	X		X											
	feral hog control		X		X		X	X		X	X							X	X			X
	cowbird control										X											
	red imported fire ant control			X								X									X	
	restoration (planting native plants)				X	X					X											
	non-native plant control	X		X	X	X	X	X	X	X	X	X		X	X			X	X	X	X	X
	trash removal			X	X	X	X			X	X	X			X						X	
	patrol for evidence of trespass, vandalism, or dumping	X	X	X	X	X	X	X	X	X	X		X	X	X			X	X	X	X	X
	maintenance of roads, fences, signs	X	X	X	X	X	X		X	X	X				X			X		X	X	X

Table 10. City of Austin Monitoring and Management Activities on BCP Tracts within the Barton Creek, Cypress Creek, North Lake Austin, South Lake Austin and West Austin Macrosites.

		Barton Creek macrosite					Cypress Creek		North Lake Austin macrosite						South Lake Austin macrosite					West Austin macrosite		
	Monitoring and Management Activities on the Balcones Canyonlands Preserve (City of Austin tracts)	**Barton Creek Wilderness**	**Barton Creek Greenbelt**	**Bohls II**	**Friesenhahn**	**Senna Hills**	**Austin-Simon**	**Lime Creek**	**Coldwater**	**Cortaña**	**Cowfork/Vaught**	**Emma Long**	**Long Canyon**	**Parke West**	**Bohls**	**Commons Ford**	**JJ&T/Sansom**	**Reicher Ranch**	**Schramm Ranch**	**Mount Bonnell**	**Ullrich**	**Vireo Preserve**
Monitoring Activities	mist-net, band, and spot-map golden-cheeked warblers	X	X						X			X			X		X					
	search for banded golden-cheeked warblers	X	X									X			X		X					
	black-capped vireo spot-mapping									X												
	karst faunal surveys	X	X				X	X		X				X							X	
	cave cricket exit counts													X								
	jollyville plateau salamander surveys																					
	bracted twistflower monitoring	X	X																	X	X	X
	vegetation monitoring									X					X							X
	fuel moisture sampling of junipers									X								X				
	white-tailed deer surveys						X	X		X		X			X		X	X				
	monitoring of known oak wilt centers	X			X					X		X					X	X				X
Management Activities	deer control						X	X		X					X		X	X			X	
	feral hog control																					
	cowbird control									X					X		X					
	red imported fire ant control							X						X								
	restoration (planting native plants)									X								X				
	non-native plant control	X	X		X				X	X	X	X	X	X	X	X	X	X	X		X	
	removal of red oaks infected with oak wilt	X			X							X					X					
	trash removal	X	X		X					X	X	X		X	X	X	X	X				X
	patrol for evidence of trespass, vandalism, or dumping	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X			X
	maintenance of roads, fences, signs		X	X			X	X	X	X	X		X				X	X				X
	inventory of main gates	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X			X	X
	inspection of utility corridor maintenance									X	X			X			X					

Other Notable Tract Management Activities

The following bulleted lists describe other notable tract management activities which occurred on COA-owned BCP tracts. These items have been organized by macrosite.

Barton Creek Macrosite

Barton Creek Wilderness Area and Greenbelt, and the Friesenhahn tract

- Completion of a 700-meter-long trench around an oak wilt center. The trench was filled in and covered with mulch from slash that had been cleared from the trench path. BCP staff then directed an American YouthWorks (AYW) crew in the construction of erosion controls on steeper slopes of the trench.
- Three to five active vagrant camps found and mapped by BCP staff; Austin Police Department officers evicted squatters.
- BCP staff, PARD staff, and AYW began removing piles of accumulated trash from vagrant camps.
- Restoration of vegetation damage by neighbors.
- Held a full-day invasive-plant removal event with PARD staff and a large cadre of volunteers.
- On March 26, 2010, the 13.62-acre Barton Creek Ventures tract was purchased for the BCP.

Bull Creek Macrosite

Bowman

- Jollyville transmission line: water well monitoring and testing. Coordinated with the new replacement for Raymond Slade (O'Rourke, David E. with Black and Veatch).

Canyon Creek

- Sonterra Apartments landscape crew diesel spill/ encroachment on to preserve. Met with remediation team which removed contaminated soil and collected soil samples to be tested; all contaminants were removed. The landscape company then repaired the road and agreed not to trespass in the future.

Franklin

- Continued monitoring of the Cistern Spring/Jollyville Plateau salamander habitat restoration project.
- Seed collection from locally rare, spring-associated plants; subsequently sowed at the newly-protected Cistern Spring fenced area.
- Monitoring of water level at springs and salamander sites; due to drought conditions most springs and spring runs were dry by late August.

- Upper Bull/ Jollyville transmission line: met with and inspected contractors' efforts regarding the drilling of test bore holes and wells on Upper Bull Creek. Made sure that the contractors abide by their contract and limit habitat destruction.
- Jollyville transmission line water well monitoring and testing: coordinated with the new replacement for Raymond Slade (O'Rourke, David E. with Black and Veatch).

Hanks Tract and Gardens at Bull Creek

- Completion of a 470-meter-long trench around an oak wilt center. The trench was filled in and covered with mulch from slash that had been cleared from the trench path. BCP staff and volunteers then constructed erosion controls on steeper slopes of the trench.
- Continued to monitor the Jollyville Plateau salamander habitat restoration (removal of a low water crossing); staff noted salamanders in this area prior to the September flood.
- Met with Water Protection and Development Review Department (WPDRD) staff regarding dam maintenance (100 year flood retention facility plus retention pond); discussed timing and what type of maintenance is allowed within the BCP.

Lanier

- Jollyville transmission line: water well monitoring and testing. Coordinated with the new replacement for Raymond Slade (O'Rourke, David E. with Black and Veatch).
- Upper Bull/Jollyville transmission line: met with and inspected contractors efforts regarding the drilling of test bore holes and wells on upper bull. Made sure that the contractors abide by their contract and limit habitat destruction to a minimum.

Sam Hamilton Memorial Reserve West

- On July 29, 2010, Austin City Council removed the special use designation from this tract, the former Water Treatment Plant 4 site. It was formally dedicated, as a tract of the BCP in memory of Sam Hamilton, director of the USFWS.
- Moss Gully Spring Restoration: Met on site with WPDRD staff and the drill company rep regarding specifics on how and when the site will be restored.
- Cave restoration: Worked on reducing the size opening of Down Dip Sink, to better stabilize the cave climate.
- Jollyville transmission line: Water well monitoring and testing. Coordinated with the new replacement for Raymond Slade (O'Rourke, David E. with Black and Veatch).

Ivanhoe

- Completed new game fence contract for the eastern boundary (approximately 10,000 linear feet) of this tract.
- Found landscape crew on Ivanhoe illegally cutting trees to open up a view for the adjacent homeowner, documented event, called police and worked up a report. The district attorney declined to prosecute.
- Transient camp/ trash removal.

- Investigated new encroachment from Colina Vista; submitted report on area of disturbance, plus follow-up. Met on site with the developer representative plus WPDRD inspector and worked out a resolution to the problem.

Barrow Preserve

- Follow up report on an on site meeting with PARD and AWU staff regarding a proposal to install a new lateral sewer line to the main; more importantly, the site in question has a sewer main that is being undermined so follow up meetings will attempt to address that problem.

Stillhouse Hollow

- Preliminary work on an interpretive kiosk, with volunteer assistance and in collaboration with PARD.
- Conducted a follow-up vegetation transect through the deer exclosure with help from USFWS staff.
- By mistake, the 8.0 acres of this tract had previously been counted towards the 30,428 acre goal for the BCP. This tract is no longer considered BCP acreage since it was determined to not be one of the dual managed tracts identified in the BCCP. Cotterell Cave is still listed on the BCCP permit and will continue to be managed by BCP staff to assure compliance with the permit, similar to several other City-owned BCP caves.

Cypress Creek Macrosite

Lime Creek/Austin Simon

- Prescribed burn preparation completed for a six-acre area that included finalizing the fireline and building of water collection and storage units.
- Second year of vegetation monitoring was completed in former Ashe juniper-oak woodland that was burned during a wildfire in April of 2009. Data from the vegetation monitoring in 2009 has been finalized in report form and 2010 data is expected to be analyzed in 2011.

North Lake Austin Macrosite

Coldwater/Cowfork/Long Canyon/Vaught Ranch

- Approximately three miles of 8-foot game fence installed on the Cowfork, Vaught Ranch, and Long Canyon boundaries.
- Banding and surveying of golden-cheeked warblers was conducted on the Coldwater tract and researchers from Southwestern University (Georgetown, Texas) conducted research on avian density and nest success to look at their relation to herbivore browse on Long Canyon and Coldwater.

Cortaña

- On November 25, City staff found that several junipers had again been illegally topped or pruned on City property behind 5206 Eagle Trace Trail. This incident is at least the second time such damage has been found directly behind this neighbor's property. In response, an 8-foot game fence was subsequently constructed behind this property.
- A neighbor constructed an unauthorized fence across a portion of this tract where the neighbor has an access easement. City staff requested removal of the fence.
- Entrance to Cortaña Cave was narrowed to help stabilize the cave environment.
- Preparation of an 11-acre site within the existing shinnery for a prescribed burn. Weather conditions prevented the prescribed burn this year.
- Completion of a wildfire fuel reduction project along the northeast boundary of the tract.

Emma Long Park and Preserve

- The City of Austin BCP worked with PARD, the Friends of Turkey Creek, and the USFWS under the BCP Trail Master Planning process for a re-alignment and restoration of a portion of the Turkey Creek Trail.
- Orion Research and Management, Inc., a private consulting firm, conducted white-tailed deer surveys along City Park Road and provided the City of Austin BCP with the data.
- Golden-cheeked warblers were banded and surveyed in the Bike Park.
- Began trenching to contain a large oak wilt center near the Turkey Creek trailhead.

<u>South Lake Austin Macrosite</u>

BCP staff participated in the Westcave Christmas Bird Count, on the portions of this macrosite that are within the count circle (Bohls Ranch, Reicher Ranch, and Double J&T).

Commons Ford Ranch Park

- Commenced prairie restoration project.

Double J&T

- Completion of a 620-meter-long trench around an oak wilt center. The trench was filled in and covered with mulch from slash that had been cleared from the trench path. BCP staff then directed an AYW crew in the construction of erosion controls on steeper slopes of the trench.

Reicher Ranch

- Treatment with Alamo® fungicide of 290 Live Oaks within an oak wilt center in an attempt to save and protect these individual trees, which surround our headquarters.
- Completion of approximately 600 meters of trenching to contain the headquarters oak wilt center.
- Restoration of golden-cheeked warbler habitat on the grounds of the office headquarters and surrounding areas.

West Austin Macrosite

Vireo Research Area

- On February 16, 2010, conducted a seven-acre prescribed burn on the knoll near the center of the tract to restore black-capped vireo habitat. This area was the epicenter of the Vireo Research Area colony and the location of the most recent sightings in 2004 and 1997.
- While the burn top-killed some hardwood plants and consumed all of the brush piles, there was not enough fuel to carry the fire over the entire knoll. Thus, City of Austin staff developed a mechanical manipulation plan for the central knoll and the surrounding uplands, totaling about 50 acres, which was initiated during the fall of 2010.
- Established 16 photo points just prior to the mechanical manipulation in October 2010.
- Initiated fence installation along the north, west, and east boundaries in fall 2010.
- Discussions underway with Wild Basin staff to coordinate fencing, deer management, and additional habitat management.
- Norma Fowler, University of Texas, completed her study of bracted twistflower light requirements; City of Austin staff provided follow-up monitoring in May 2010.
- Led guided hikes highlighting the historical significance of this site as the largest black-capped vireo colony within the BCP and habitat restoration plans. Other outreach/education events included an outdoor education program for over 120 fourth graders from Casis Elementary School on March 10, 2010.

City of Austin Outreach Program

The City of Austin provides outreach to the community for the BCP through educational and volunteer activities which, in turn, support management of the lands directly and indirectly (Table 11). Volunteers provide labor that shortens task time and expertise which 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 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 FY10 outreach staff consisted of Cappy Smith, Conservation Program Coordinator, and Marty Wise, Environmental Conservation Information Specialist. Unfortunately, both individuals vacated their respective positions during this fiscal year and have yet to be replaced. It is anticipated that Amanda Ross will begin her position as the new Conservation Program Coordinator in January 2011. Because of the loss of both positions, many of the typical outreach and volunteer projects did not occur this year. The table includes a summary of all outreach and volunteer projects for the BCP.

Table 11. City of Austin BCP Outreach Activities for FY10.

Type of Activity	Total events	Total Participants	Event BCP Only	Participants BCP Only	Total events BCP	Total BCP participants
Special Events	15	4,194	1	235	12	3519
School presentations	7	520	1	91	3	441
HOA/NA	2	145	2	145	2	145
Community Orgs	3	108	1	33	2	78
Teacher Institute	0	0	0	0	0	0
BCP Hike & Lecture	2	26	2	26	2	26
BCP Hikes	22	455	22	455	22	455
WQPL Hikes	25	375	0	0	0	0
Specialty Trainings	12	213	2	24	2	24
Guide Trainings	1	4	1	4	1	4
Bull Creek Permit Hikes	5	71	5	71	5	71
Totals	**94**	**6111**	**37**	**1084**	**51**	**4763**

TRAVIS COUNTY

At the close of FY10, Travis County managed a total of 5,931 acres of open space lands dedicated to the BCP, plus 819 acres of the Steiner Ranch preserve. Travis County staff conducted a variety of resource monitoring and management activities on County-managed BCP lands in FY10 (Tables 12 and 13). Many of these activities are described in more detail in Appendices G, H, I, J and K. Other notable management activities are further described in the next section.

Table 12. Monitoring and Management Activities on Tracts Owned by Travis County within the Bull Creek, North Lake Austin, South Lake Austin, West Austin, and Pedernales River Macrosites.

	Monitoring and Management Activities on the Balcones Canyonlands Preserve (Travis County tracts)	Bull Creek Macrosite						North Lake Austin Macrosite					South Lake Austin		Pedernales River	West Austin
		Canyon Vista	Concordia	Karnik/Richards	Origer	Ribelin	Woody Hollow	Franzetti	Gray Mountain	Greenshores	Hereford	Steiner Ranch	Chandler	Medway	Hamilton Pool	Wild Basin
Monitoring Activities	spot-map golden-cheeked warblers (100-acre plots)	X				X						X			X	
	spot-map golden-cheeked warblers (non 100-acre plots)			X	X					X	X				X	
	spot-map black-capped vireos															
	presence/absence survey for black-capped vireos					X						X				
	karst surface monitoring					X										
	karst faunal surveys					X										
	cave cricket exit counts															
	canyon mock-orange monitoring														X	
	jollyville plateau salamander surveys															
	deer surveys														X	X
Management Activities	deer control					X									X	
	feral hog control	X				X									X	
	cowbird control														X	
	red imported fire ant control															X
	non-native plant control		X			X	X			X					X	X
	black-capped vireo habitat restoration					X										
	trash removal					X	X								X	X
	patrol for evidence of trespass, vandalism, or dumping	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	maintenance of roads, fences, signs					X	X					X	X	X	X	X

Table 13. Monitoring and Management Activities on Tracts Owned by Travis County within the Cypress Creek Macrosite.

Monitoring and Management Activities on the Balcones Canyonlands Preserve (Travis County tracts)		Cypress Creek Macrosite																				
		Bender/Gann	Bunten	Cuevas East	Cuevas West/TSNL	The Crossings	Grandview Hills North	Grandview Hills South	King/Atwood/Blake	Lake Perspectives	Lime Creek 25	Lucas	New Life	Nootsie	Romberg	Saldivar	Snowden	Spezia	Toops	Vireo Ridge/Stratton	Vista Point	Volente
Monitoring Activities	spot-map golden-cheeked warblers (100-acre plots)		X							X											X	
	spot-map golden-cheeked warblers (non 100 -acre plots)	X		X	X										X							X
	spot-map black-capped vireos			X	X															X		
	presence/absense survey for black-capped vireos			X	X															X	X	
	karst surface monitoring		X	X	X		X					X		X						X	X	X
	karst faunal surveys		X	X	X		X					X		X						X	X	X
	cave cricket exit counts			X	X							X									X	
	canyon mock-orange monitoring																					
	jollyville plateau salamander surveys		X				X						X									
	deer surveys				X	X	X		X				X	X						X	X	X
Management Activities	deer control		X		X		X		X					X			X			X	X	
	feral hog control																					
	cowbird control													X					X	X		
	red imported fire ant control			X	X							X									X	
	non-native plant control	X	X						X			X	X	X			X			X		X
	black-capped vireo habitat restoration																			X		
	trash removal	X								X			X									X
	patrol for evidence of trespass, vandalism, or dumping	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	maintenance of roads, fences, signs		X	X	X														X	X	X	X

Other Notable Tract Management Activities

Maintaining boundary fences, interior roads, and existing structures is an important aspect of Preserve management. In FY10, Travis County installed 12,753 linear feet of boundary fence on the following tracts: Volente, Medway, Woody Hollow, Mirtsching, Cuevas East, Cuevas West and Chandler. Travis County also repaired fencing on several other tracts including Medway, Canyon Vista, and Volente.

On September 7 and 8, 2010, parts of western Travis County received more than 12 inches of rain which resulted in road, dam, and fence damage to several BCP tracts. Travis County conducted a flood damage assessment and found that portions of road on the Grandview Hills North, Karnik, Volente, and New Life tracts had suffered serious damage and will need to be repaired. An earthen dam on the Gann tract was breached and the dam needs to be removed to prevent further flooding problems in the future. About 300 feet of fence on the Canyon Vista tract was also damaged. These issues are planned to be addressed in FY11.

Many of the properties that Travis County has acquired as part of the BCP have come with various structures and buildings on them. In FY10 Travis County conducted a Buildings Assessment of all significant structures on County-managed BCP lands and made recommendations as to whether structures should be kept and maintained, kept but not maintained, torn down, or sold. One structure was torn down in FY10 on the Volente tract.

Travis County staff coordinated with City of Austin and their contractors on a number of Water Treatment Plant #4 related activities such as: shaft site planning on Forest Ridge Transmission Main on Ribelin Tract, coring work on Ribelin Tract, cave survey work in shaft site area, tunnel right of way issues on Jollyville Transmission Main under Concordia tract, duct bank work under Bullock Hollow Rd., monitoring impacts of road construction work on Preserve tracts along Bullock Hollow Rd., monitoring potential impacts of the whole project on Jollyville Plateau Salamanders, and working with County attorneys on SOS threat of lawsuit.

BCP staff continued to work with county permitting and enforcement staff concerning an illegal dam constructed in the creek just upstream from the Lake Perspectives tract. The dam on private land was constructed without city or county building permits, was constructed in the floodplain, and obstructed water flow to downstream landowners.

Travis County Law Enforcement and Preserve Patrol

Management of BCP 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 are subject to law enforcement issues including illegal trespass (pedestrian, mountain bike, all-terrain vehicle, and motorcycle traffic), illegal dumping, vandalism, theft, and poaching of native wildlife.

Law enforcement on all Travis County owned or managed properties including County Parks and County BCP tracts are provided by Rangers. These Rangers work under Travis County's Parks Division and they 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.

Trespass onto posted preserve lands is the most common illegal activity on County BCP tracts. 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, and then escorted from the property. In FY10 there were sixteen documented trespasser encounter incidents, ten incidents of Criminal Mischief (tree removal, lock and fence cuts), and three cases of theft reported.

In FY10, the effort to train additional Park Rangers continued, enabling 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.

The Rangers and Travis County's Natural Resources staff regularly patrol and inspect County managed BCP tracts to look for signs of illegal activity and to assess management needs. Regular patrols provide a visible County presence, thereby minimizing the incidence of unauthorized activities. Patrols also allow staff to inspect fences, facilities, trails and roads, and look for resource management issues such as non-native plant and animal encroachment, and signs of oak wilt infestation.

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-managed BCP lands. 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 BCP Volunteer and Outreach Programs

Volunteer Program Activities

In FY10 Travis County BCP benefited from the efforts of 830 volunteers who invested time into many different types of projects at the BCP. Besides training, volunteers spent their time on the following projects: biological monitoring, wildlife management, non-native plant removal, maintenance, education and outreach, and data organization. The Volunteer Program has been effective at promoting education and outreach at the BCP and also at reducing staff time and costs for BCP management. Volunteers provided valuable skills and time to Travis County. Overall, volunteers contributed 4,488 hours to assist Travis County at the BCP in FY10, which is the equivalent of more than two additional paid staff (Table 14).

Table 14. Number of Volunteer Hours Contributed to Travis County's BCP during FY10.

Type of Activity	Number of Hours
Training	117
Bird Monitoring	85
Jollyville Plateau Salamander Monitoring	25
Karst Biological Surveys/Cricket Counts	48
Wildlife Management Activities	15
Non-native Plant Removal	3,495
Maintenance	422
Trash Clean-up	105
Data Management	22
Public Education and Outreach	154
Total	**4,488**

Education and Outreach Activities

Travis County presented information about the BCP at hikes and tours, community meetings, public events, and training workshops. Approximately 2,032 individuals were reached through these efforts.

Travis County's Balcones Canyonlands Preserve education and outreach efforts in FY10 included:

- The FY10 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 BCP protects. Travis County staff led 26 people on three interpretive educational hikes at Hamilton Pool Preserve, the Crossings, and the Jollyville Unit.
- Neighborhood tours at the BCP were attended by 111 individuals, including 20 neighbors at the Canyon Vista tract and 12 individuals at the Volente tract. With the help of volunteers, five tours were provided to 109 neighbors in the Grandview Hills subdivision. These neighbors learned about the BCP while hiking through Vista Point, and the Grandview Hills North and South tracts.
- Travis County makes a special effort to reach out to school children living in the vicinity of BCP properties. Presentations and activities were provided this year at Laurel Mountain Elementary and Steiner Ranch Elementary. Students from Laurel Mountain Elementary, along with teachers and family members (93 individuals), learned about the BCP and the golden-cheeked warbler from two presentations and tours of habitat at the Canyon Vista tract. Staff also attended meetings of the Laurel Mountain Elementary Ecology Club and led a tour of the Canyon Vista tract to inform club members and their parents about the BCP, endangered species, and local flora and fauna. Students, family members, and teachers (147 individuals) from Steiner Ranch Elementary learned about the BCP on two hikes. Boy Scouts (78 boys), Girl Scouts (10 girls), and Brownies (10 girls) learned about the BCP on four hikes and one hike/trash clean-up at Steiner Ranch, Vireo Ridge, and Grandview Hills tracts.
- Numerous opportunities were provided for college and university researchers and field classes to utilize the BCP as a living classroom. In FY10 several universities had projects or fieldwork on Travis County BCP lands including: Concordia University, the University of Texas in Austin, Texas A&M University at College Station, and Kilgore College in east Texas.
- Independent photographers, filmmakers, and authors were provided with the opportunity to capture images of wildlife at the BCP for their projects. The Jollyville Plateau salamander was the subject of two projects at McDonald Spring. Three photographers visited the preserve to capture the black-capped vireo on film.

- Travis County BCP staff led several tours for colleagues in the scientific and resource management community. County staff led tours of golden-cheeked warbler habitat and black-capped vireo restoration areas at the Jollyville Unit for natural resource professionals from Louisiana State University, Fort Hood, City of Austin, and the USFWS. In addition, Travis County offered a site visit of McDonald Spring, a Jollyville Plateau salamander site on the Bunten tract, to an interagency group attending a Jollyville Plateau salamander meeting. Travis County staff also offered tours of the BCP at the Jollyville Unit and Hamilton Pool Preserve to people attending the NatureServe conference in Austin.
- Travis County attempts to share information with the public through participation in community events throughout the area. Travis County had an educational booth at the Austin Cave Festival which is held annually to teach local residents about the importance and sensitivity of the aquifer and its recharge features. Over 800 people attended the festival and had access to BCP information.
- Travis County provides opportunities for youth-at-risk programs to educate and inform while also providing valuable hands-on work experiences on the BCP. American YouthWorks (AYW) learned about the preserve through two 6-week internships and team projects including trail-building and black-capped vireo habitat restoration.
- Travis County partnered with Keep Austin Beautiful to clean up trash from the Lake Perspectives tract.
- The County utilizes various media opportunities to inform the public about issues related to the BCP, such as the purchase of new tracts, receipt of federal HCP land acquisition grants, and the negative impact of non-native wildlife on ecosystem health. Nine articles about the BCP were written for local newsletters by the Volunteer Coordinator in FY10.
- Travis County advertised a hike to the general public in the Austin American Statesman as part of Austin Nature Days. In addition, the County participated in the first annual Austin Nature Challenge. Three teams learned about the BCP while touring the Jollyville Unit tract. One team wrote a blog and posted photographs on the Nature Challenge website about their experience at the BCP.
- County Staff provided two presentations for Homeowners Associations, providing information to 40 individuals. Travis County presented information and provided an informative poster and brochures at Grandview Hills and Deer Creek HOA meetings. In FY10 Travis County acquired 827 acres of the undeveloped lands in the Village of Volente for the BCP. Travis County presented information about the BCP at the Village of Volente's City Council and Town Hall meetings, providing outreach to 45 individuals.
- Travis County also provided education programs at four training workshops. First, over 500 people attended two Infrastructure Maintenance Training workshops held in FY10.

They were given information about the BCP and trained on how to plan and conduct construction and development activities near the BCP. Next, at the FY10 Travis County Pesticide Workshop, training was provided to 21 individuals on the BCP's invasive plant removal techniques and herbicide application. Last, Travis County staff presented information and demonstrated tools for control of the red imported fire ant for 25 people at the quarterly BCP Land Managers Meeting.

- 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.
- Travis 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.

THE LOWER COLORADO RIVER AUTHORITY

Management Highlights

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 8,129 students, teachers, and visitors and during FY10.

McGregor

- Deer harvest activity was limited at McGregor during the 2009-2010 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 tract 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. The training for the FY11 will take place on November 17 and 20, 2010.
- 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

- Golden-cheeked warbler surveys conducted at Wheless this year in two 100-acre plots found ten golden-cheeked warblers in the prime habitat plot and five in the transitional plot. The survey results are described in Appendix M.
- Zara Environmental conducted Karst feature surveys as part of a larger BCCP project. A final report is pending.
- Biologists from the City of Austin (COA) continued surveys on Jollyville Plateau salamanders at Long Hollow Creek.
- LCRA staff continues to monitor Wheless for introduced plant species as part of the invasive plant 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

Annual Report for Barton Creek Habitat Preserve Calendar Year 2010

Science / Stewardship

Annual surveys (point count) were completed for the black-capped vireo and golden-cheeked warblers to determine population densities. Texas A&M University conducted transect surveys in a study to determine the impact of future expansion/construction of Hwy 71 on the golden-cheeked warblers. The first preserve golden-cheeked warblers were spotted on March 17 and a total of 67 territories were noted. Two male black-capped vireos were documented but territories were never verified.

Brown-headed cowbirds were removed from the preserve through shooting.

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

Austin Youth River Watch continued 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 2010, three units totaling approximately 225 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. An Eagle Scout project built a boardwalk over uneven terrain to improve walking access from the parking lot to the pavilion. During 2010, we had approximately 1,100 visitors on the preserve for volunteer, educational, and research purposes.

TRAVIS AUDUBON SOCIETY

Travis Audubon Society owns and manages 682 acres at the Baker Sanctuary which are included as part of the BCP. A report of the monitoring and management activities conducted on the Bakers Sanctuary for FY10 is included as Appendix N.

LITERATURE CITED

City of Austin and Travis County. 1995. Interlocal Cooperation Agreement between Travis County and the City of Austin Implementing the Balcones Canyonlands Conservation Plan-Shared Vision.

U. S. Fish and Wildlife Service. 1996a. Federal Fish and Wildlife Permit No. PRT-788841.

U. S. Fish and Wildlife Service. 1996b. Final Environmental Impact Statement / Habitat Conservation Plan for Proposed Issuance of a Permit to Allow Incidental Take of the Golden-cheeked Warbler, Black-capped Vireo, and six karst invertebrates in Travis County, Texas.