

Balcones Canyonlands Conservation Plan

2012 Annual Report

(October 1, 2011 – September 30, 2012)

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 2013

TABLE OF CONTENTS

BACKGROUND.....4

PERMIT REQUIREMENTS4

DEVELOPMENT ACTIVITY WITHIN THE PERMIT AREA.....6

MITIGATION CREDIT BALANCE6

PARTICIPATION CERTIFICATE ACTIVITY7

**FUNDS COLLECTED THROUGH PARTICIPATION CERTIFICATE
AND USFWS DIRECTED MITIGATION FEES.....8**

FUNDS EXPENDED FOR LAND ACQUISITION.....9

FUNDS EXPENDED FOR OPERATIONS AND MAINTENANCE11

**UPDATED MAP OF LANDS DEDICATED TO THE BALCONES
CANYONLANDS PRESERVE12**

BCP COMPLETION TASK GROUP REPORT.....12

FY 2012 RESEARCH OR INVESTIGATIVE REPORTS.....13

**PUBLIC USE, HABITAT AND WILDLIFE MONITORING, AND MANAGEMENT ACTIVITIES
OCCURRING WITHIN THE BALCONES CANYONLANDS PRESERVE.....13**

CITY OF AUSTIN13

 BARTON CREEK MACROSITE.....17

 BULL CREEK MACROSITE.....17

 CYPRESS CREEK MACROSITE.....19

 NORTH LAKE AUSTIN MACROSITE.....19

 SOUTH LAKE AUSTIN MACROSITE.....21

 WEST AUSTIN MACROSITE.....22

 CITY OF AUSTIN BCP OUTREACH AND VOLUNTEER PROGRAM23

TRAVIS COUNTY26

 TRAVIS COUNTY WILDFIRE PREPAREDNESS29

 TRAVIS COUNTY LAW ENFORCEMENT AND PRESERVE PATROL30

 TRAVIS COUNTY BCP VOLUNTEER AND OUTREACH PROGRAMS31

THE CITY OF LAKEWAY.....33

THE LOWER COLORADO RIVER AUTHORITY33

THE NATURE CONSERVANCY OF TEXAS.....35

TEXAS CAVE MANAGEMENT ASSOCIATION36

TRAVIS AUDUBON SOCIETY.....36

LITERATURE CITED37

LIST OF TABLES:

Table 1. Endangered Species and Species of Concern Covered by the Balcones Canyonlands Conservation Plan5

Table 2. Infrastructure Projects Mitigated Through the Use of Mitigation Credits During FY12 By Participating Agency7

Table 3. FY12 Projects Mitigated Through the Purchase of Participation Certificates8

Table 4. USFWS HCP Land Acquisition Grant Awards Received by the Permit Holders, 1997-2012.....9

Table 5. Travis County and City of Austin FY12 BCP Land Acquisitions.....10

Table 6. Annual FY11 and FY12 BCP Budgets (excluding land acquisition costs) for Permit Holders, the Managing Partner, and Cooperating Entities with Summary Of Total Budgets since Plan Inception11

Table 7. Management Status of City of Austin BCP Properties14

Table 8. City of Austin Monitoring and Management Activities on BCP Tracts within the Bull Creek Macrosite15

Table 9. 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 Macrosites16

Table 10. City of Austin BCP Outreach Activities for FY1224

Table 11. 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 Macrosites27

Table 12. Monitoring and Management Activities on Tracts Owned by Travis County within the Cypress Creek Macrosite.....28

Table 13. Volunteer Hours Contributed to Travis County’s BCP in FY1231

Table 14. Travis County BCP Education and Outreach Summary for FY1232

Table 15. Professor-led Educational Activities occurring on Travis County BCP Tracts in FY12.....33

LIST OF APPENDICES:

Appendix A – City of Austin Development Permits West of Loop 1 October 1, 2011 to September 30, 2012

Appendix B – Travis County Development Permit Issued in the BCCP Permit Area for FY 2012

Appendix C – Balcones Canyonlands Preserve Properties by Macrosite (FY 2012)

Appendix D – Balcones Canyonlands Preserve Properties by Management Agency (FY 2012)

Appendix E – Balcones Canyonlands Preserve System Map (FY 2012)

Appendix F -- City of Austin 2012 Golden-cheeked Warbler (*Setophaga chrysoparia*) Monitoring Program

Appendix G – City of Austin 2012 Black-capped Vireo (*Vireo atricapilla*) Monitoring Program

Appendix H – Balcones Canyonlands Preserve Karst Monitoring and Management FY2012 Annual Report

Appendix I – FY 2012 Report on Monitoring of the Golden-cheeked Warbler (*Setophaga chrysoparia*) on Travis County’s Balcones Canyonlands Preserve

Appendix J – FY 2012 Report on Monitoring and Management of the Black-capped Vireo (*Vireo atricapilla*)

on Travis County's Balcones Canyonlands Preserve
Appendix K – Travis County FY 2012 Jollyville Plateau Salamander Monitoring Report
Appendix L – FY 2012 Summary of Wildlife and Plant Management Activities on Travis County's
Balcones Canyonlands Preserve and Select Parks
Appendix M – Wild Basin Wilderness Preserve 2012 Annual Report
Appendix N – City of Lakeway Schramm Ranch Fish and Wildlife Service Permit 2012 Annual Report
Appendix O -- Travis Audubon Society Baker Sanctuary 2011-2012 Annual Report
Appendix P – Research Reports

1. **Bendik, Nathan F.** *Jollyville Plateau Salamander Interim Report, 2012, for Balcones Canyonlands Preserve.* City of Austin. Watershed Protection. 2012.
2. **De Jong, G. L. and N. L. Fowler.** *Landscaping Plants as Invasive Species in Central Texas: positive Correlations with Development, proximity and Age, but Limited by Aridity?* University of Texas at Austin. 2012.
3. **Dorsey, Shannon.** *Results of Golden-cheeked Warbler Survey on River Place M.U.D. Nature Trail Located West of River Place Boulevard and South of the Intersection of RM 620 and FM 2222, Travis County, Texas HJN 120040 TE.* Horizon Environmental Services, Inc. 2012.
4. **Edgar, Chris.** *Assessment of Tree Mortality from the 2011 Drought.* Texas Forest Service. 2012.
5. **Fowler, N. L. and G. L. De Jong.** *Ecological Characterization and Data Base Construction for the Bracted Twistflower (*Streptanthus bracteatus*).* University of Texas at Austin. 2012
6. **Glick, Roger.** *Stormwater Monitoring in Upper Bull Creek.* City of Austin. 2012.
7. **Harp, Cyrus A.** *Aboveground Spatial Variation of Arthropod Biomass and Diversity Along Gradients of Plant Biomass and Net Primary Productivity at Wild Basin Wilderness Preserve, Austin TX.* Department of Integrative Biology University of California. 2012
8. **Hauser, Charles.** *Metagenomics of Karst Soil Microbial Systems and their Role(s) in Carbon Cycling and Native Plant Restoration.* Bioinformatics Program, St. Edward's University. 2012.
9. **Hook, Allen.** *Annual Report: A Test of the Relative Abundance and Distribution of Ants at the Wild Basin Preserve in Relation to Habitat Manipulation for the Black-capped Vireo.* St. Edwards University. 2012.
10. **Jha, Shalene.** *Understanding Native Bee Decline.* University of Texas at Austin. December 2012
11. **Johns, David A.** *Summary of Tracing for Four Points in and Near the Balcones Canyonlands Sam Hamilton and Bull Creek Preserves.* City of Austin Watershed Protection. 2012.
12. **McClendon, Ariane.** *Propagation Methods for *Croton alabamensis* var. *texensis* in Travis County.* Concordia University. 2012
13. **Perkins, Thais.** *Draft Annual Report to the City of Austin Balcones Canyonlands Preserve November 2012.* City of Austin. Watershed Protection.
14. **Robinson, D. H. and M. Morrison.** *Effects of Habitat Patch Size on Occupancy and Reproductive Success of a Forest-Dependent Songbird in an Urban Landscape.* Texas A&M University. Department of Wildlife & Fisheries Sci., 2012.
15. **Robinson, D. H., H. Mathewson and M. Morrison.** *Analysis of the Golden-cheeked Warbler In Relation To Construction Activity Along Highway 71.* Texas A&M University for The Nature Conservancy – Barton Creek Habitat Preserve. 2012
16. **Young, Diane W.** *Progress Report for "Revision of the Genus *Indiopsocus* (Order "Psocoptera)".* 2012.

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. 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.

Table 1. Endangered Species and Species of Concern Covered by the Balcones Canyonlands Conservation Plan.

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

*Scientific reclassification in 2011 from *Dendroica chrysoparia* to *Setophaga chrysoparia*

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 2012 (FY12) 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 FY12 is included within Appendix B.

Mitigation Credit Balance

The City of Austin's Balcones Canyonlands Preserve staff administers the Capital Improvement and Infrastructure Development Project mitigation credit system on behalf of the BCCP Coordinating Committee. The mitigation needs of the Permit Holders and the

Managing Partner for these projects are provided under the terms of the regional Permit. Mitigation credits are issued at a rate equal to the number of acres within the Preserve system managed under the terms and conditions of the Permit and the HCP/FEIS (U. S. Department of the Interior, Fish and Wildlife Service, 1996b). BCP acreage that was originally mitigation under the BCCP Alternative Determination Process, or another Section 10(a) or Section 7 permit, is not included in this mitigation bank acreage total. 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).

Table 2. Infrastructure Projects Mitigated Through the Use of Mitigation Credits During FY12 by Participating Agency.

City of Austin	
Starting City of Austin Balance	11,590.04 acres
New preserve additions (credits) –	0
AE – Sherman Ct.	.2
Remaining Mitigation Credits	11,589.84 acres
Travis County	
Starting Travis County Balance	4,439.867* acres
New preserve additions (credits)	282.924** acres
Remaining Mitigation Credits	4,722.791 acres
Lower Colorado River Authority (LCRA)	
Starting LCRA Balance	2487.2 acres
Bohl's WWTP clearing	6.2
Lakeway Tap emergency fence clearing	0.1
Remaining Mitigation Credits	2480.9 acres

**Differs from previous annual report; based on recalculation of all mitigation credits deducted during term of the Permit and acreage acquired.*

***Includes 5.651 acres from two cave acquisitions*

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 FY12, nine Participation Certificates were issued as follows: one for commercial use, one for a residence, two for infrastructure, four for subdivisions, and one as single family (Table 3).

Table 3. FY12 Projects Mitigated Through the Purchase of Participation Certificates.

Application #	Date	Name	Category	Amount Paid
#0668	10/04/11	Russell Parker (Overlook, Inc.)	residential	\$84,150.00
#0672	12/20/11	Randy and Denise Phillips (Promiseland West)	single family	\$2,000.00
#0661 A	01/30/12	Mark Collins Builders, Inc.	subdivision	\$19,250.00
#0632	02/13/12	Miguel and Jo-Iris Guillen	commercial	\$15,400.00
#0546	02/14/12	Cielo Multifamily LLC	subdivision	\$179,850.00
#0669 B	05/18/12	WS-COS Development, LLC (Sweetwater, Village H & H2)	subdivision	\$42,075.00
#0669 C	07/17/12	WS-COS Development, LLC (Sweetwater, Village F-1)	subdivision	\$1,375.00
#0694	08/28/12	Encino Tower Partners, LLC. (Turkey Bend Tower Project)	infrastructure	\$825.00
#0698	09/26/12	PEC (LV30 Upgrade)	infrastructure	\$550.00

Funds Collected through Participation Certificates

A total of \$345,475 was collected through the sale of Participation Certificates in FY12 (Table 3). In FY11, there was a change in protocol for processing BCCP Participation Certificate funds. Prior to these changes, participants wrote one check for mitigation to the Balcones Canyonlands Conservation Plan. Payment was collected by the Environmental Specialist with Travis County Natural Resources and deposited into a City of Austin bank account. On a quarterly basis, these funds were disbursed equally between the two Permit holders. At the request of auditors and the Permit holders, the protocol to collect and disburse Participation Certificate funds was changed in February of 2011 starting with BCCP #0654. The new protocol requires participants to issue two checks in equal amounts (50/50) to “BCCP-City of Austin” and “BCCP-Travis County.” The checks are delivered to each agency for separate processing. These changes allowed each Permit Holder to have faster access to participation funds and allowed each agency to process funds exclusively through their own financial departments.

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 FY12, Travis County’s Tax Benefit Financing Plan generated \$10,263,296 for Travis County’s land acquisition and management projects.

Funds Expended for Land Acquisition

The Permit Holders received \$60,584,037 in federal grant funds from 1997 to 2010 through the USFWS Section 6 HCP Land Acquisition Assistance Program. With the required match, a total of \$81,222,130 was spent on grant-funded BCP Preserve Acquisition, as indicated in Table 4.

Table 4. USFWS HCP Land Acquisition Grants Received by the Permit Holders, 1997-2012.

Year	Federal Grant Funds	Minimum Local Match *	Total Grant	Local Recipient
1997	\$1,000,000	\$333,333	\$1,333,333	City of Austin
1998	\$2,000,000	\$666,667	\$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
2010	\$1,330,243	\$886,829	\$2,217,072	Travis County
Total	\$60,584,037	\$20,563,927	\$81,222,130	

* Minimum match does not include overmatches

Travis County continues to purchase Preserve properties using County funds without grant assistance. Fee simple purchases and alternative protection strategies such as conservation easements, donations, and deed transfers have been utilized. 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 \$20,578,743.99 in FY12 on non-grant land acquisition activities and secured 428.305 acres through non-grant protection strategies. The City of

Austin did not expend any funds on land acquisition during FY12. At the end of FY12, Travis County managed 7,622 acres of land within the BCP, and the City of Austin owned and managed 13,608 acres of land within the BCP. For a detailed account of all BCP tracts assembled see Appendices C, D, and E. All Travis County and City of Austin FY12 BCP land acquisitions are shown by tract in Table 5.

Table 5. Travis County and City of Austin FY12 BCP Land Acquisitions.

Tract	Agency	Date Acquired	Acreage	Total Expenditures *
Grandview Hills Section 9**	Travis County	1/7/2011	172.3810	\$ 9,054,319.71
Hayes Stark's North Mine	Travis County	6/27/2012	0.8320	\$ 111,795.00
Muirfield - Ireland's Cave	Travis County	2/21/2012	4.8190	\$ 35,154.30
Lemens	Travis County	12/15/2011	29.9770	\$ 1,206,557.40
Webb	Travis County	10/3/2011	147.3480	\$ 8,263,140.25
Lime Creek Unit:				
Bertron	Travis County	6/13/2012	7.9700	\$ 209,115.45
Carson South	Travis County	11/9/2011	5.1600	\$ 134,745.75
Carson North	Travis County	8/8/2012	4.4300	\$ 111,985.00
Greer	Travis County	3/28/2012	4.1090	\$ 108,651.90
Land	Travis County	4/27/2012	11.6060	\$ 302,938.15
Liu	Travis County	10/12/2011	10.0300	\$ 252,848.20
Mason	Travis County	10/25/2011	4.9400	\$ 130,720.45
McGill	Travis County	11/16/2011	3.0290	\$ 76,710.00
Simmons	Travis County	3/23/2012	3.3310	\$ 89,508.15
Singleary	Travis County	10/20/2011	5.0000	\$ 134,812.18
Thomas	Travis County	11/28/2011	3.0350	\$ 82,302.00
Trahan	Travis County	5/4/2012	4.6080	\$ 124,549.10
Watts	Travis County	3/21/2012	5.7000	\$ 148,891.00
	Travis County	Subtotal	428.3050	\$20,578,743.99
	City of Austin			\$
		Total	428.3050	\$ 20,578,743.99

* Total Expenditures include land and associated acquisition costs

** Travis County closed on 172.38 acres Grandview Hills Section 9 property, however, only 27 acres were new to the BCP, since the other 145 acres were previously managed under a conservation easement and already counted.

Funds Expended for Operations and Maintenance

In FY12, the Permit Holders, LCRA, TNCTX, and the Travis Audubon Society (TAS) spent \$2,118,441 on operation and maintenance of BCP lands (Table 6).

Table 6. Annual FY11 and FY12 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	FY2011	FY2012	Total Budget: 1996 to Present
City of Austin	\$1,009,102	\$1,030,625	\$12,247,462
Travis County	\$1,079,598	\$971,316	\$8,251,806
LCRA	\$60,000	\$56,500	\$1,540,079
TNCTX	\$10,000	\$10,000	\$952,000
TAS	\$46,287	\$50,000	\$327,986
TOTALS	\$2,204,987	\$2,118,441	\$23,319,333

The City of Austin spent a total of \$1,030,625 for FY12 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 (PARC) operations on BCP-designated parkland; or (3) capital improvement projects 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 FY12 was \$971,316. This total includes Travis County General Fund expenditures, funds from Tax Benefit Financing, BCP Participation funds, 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 282,924 acres to the BCP in FY12, 30,438 of the 30,428 acres of black-capped vireo and golden-cheeked warbler habitat required by the Permit have been assembled by the Permit Holders with the assistance of cooperating landowners and entities.

With the acquisition of 2 additional BCP caves in FY12, 47 of the 62 caves which are identified to be protected in the permit have been afforded some level of protection. Ten additional endangered species karst features which are not listed on the permit are also protected on BCP land. 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.

BCP Completion Task Group Report

In FY12, the BCCP Completion Task Group met to review current status, plan strategy for future acquisitions, and continue discussions about what will be needed to complete the BCCP Permit requirements. The Group also discussed status of the 62 karst features required and possible options for strategy of acquisitions and if needed, potential substitution criteria. Even though the minimum acreage of required habitat has now been acquired for the 2 endangered bird species, additional acreage will still be needed to meet the configuration requirements for the bird habitat blocks and acquisition of additional specific karst features required in the Permit. The Task Group hopes to do an updated completion analysis in FY13 to determine what additional bird habitat acreage and karst features are still needed to complete the Preserve and meet the terms of the Permit.

For background, on August 30, 2011 the BCCP Completion Task Group presented the Completion Report to Travis County Commissioner's Court. The purpose of this report was to determine the status of the BCCP and BCP as it relates to land acquisition, configuration, and USFWS 10 a permit requirements. The report was requested originally by Travis County Commissioner's Court in 2007. From 2007 to 2011, the Task Group met regularly to discuss completion of the BCCP/BCP and to create and compile data pertinent to the report. The Task Group presented the findings of the report to the BCCP Coordinating Committee (10/27/11), Scientific Advisory Committee (10/11/11), and the Citizens Advisory Committee (10/20/11). When the 2011 report was completed, the minimum acreage for all macrosites had been acquired except for the Bull Creek macrosite. However, though this minimum acreage was protected, the higher target acreage is still recommended in several macrosites and not yet achieved. Preserve Configuration continues to be an issue for Preserve Permit completion. As a condition of the Permit, preserve land should be assembled to meet an

edge-to-area ratio of no greater than 20%. This condition has generally been met in all macrosites except for the Bull Creek and North Lake Austin macrosites, although the analysis of this is still underway. This discrepancy can be explained by the following variables: initial configuration design flaws, issuance of individual 10(a) permits by USFWS within the BCP Acquisition Boundary, and the lack of willing sellers. The permit holders will continue to work toward completion of the Permit Requirements during FY13 with special effort toward karst protection and acquisition of additional tracts to meet the acreage and configuration requirements.

FY 2012 Research or Investigative Reports

Research reports for activities that occurred on the BCP are included as Appendices F through M, and P1- P16. 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 (COA) 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 7). 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.

Other Notable Management Activities

In June, a full-time biologist position for the Balcones Canyonlands Preserve (BCP) was diverted to another program within the Wildland Conservation Division (WCD). As a result, BCP staff had to rely more heavily upon seasonal biologists and volunteers to accomplish basic monitoring and management tasks to meet permit obligations. For example, BCP staff and the WCD's volunteer coordinator began training volunteers to patrol boundaries and report evidence of trespass, vandalism, fences in need of repair, etc. Before the volunteers began patrolling, seasonal biologists accomplished the bulk of the patrolling. Seasonal biologists were also instrumental in accomplishing an inventory of wildland/urban interface (WUI) fire risk around boundaries of City BCP tracts. Compilation and analysis of this information is ongoing.

Table 7. Management Status of City of Austin BCP Properties

Tract	Primary Management Responsibility	Acreage
Upper Bull Creek Unit (Franklin, Gass, 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	1156.50
Middle Bull Creek Unit (Kent Butler Ecological Reserve, 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 (incl. 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 Preserve	AWU/BCP	214.00
Ullrich Water Treatment Plant	AWU/BCP	18.00
Barton Creek Ventures	AWU/BCP	13.62
	AWU/BCP Subtotal	10,389.64
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
Stillhouse Hollow 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	3,218.36
	TOTAL ACREAGE	13,608.00

**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.

Table 8. 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	Gass	Hanks	Lanier	Sam Hamilton Memorial Reserve	Beard Trust	Kent Butler Ecological Resv	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	X		X	
	spot-map black-capped vireos														X									
	karst faunal surveys			X						O		X	X										X	
	cave cricket exit counts			X								X	X			X							X	
	jollyville plateau salamander surveys & mark/recapture			O	X		X	X	X	X		X		X									X	
	bracted twistflower monitoring																							
	canyon mock-orange monitoring											X												
	vegetation monitoring											X												
	fuel moisture sampling of junipers											X												
	white-tailed deer surveys		X	X	X	X		X	X	X														
	monitoring of known oak wilt centers		X		O			X																
Management Activities	deer control		X		X			X	X		X													
	feral hog control		X		X			X	X	X	X								X	X			X	
	cowbird control										O													
	red imported fire ant control			X					X			X											X	
	restoration (planting native plants)				X	X					X				X									
	non-native plant control	X		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		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	X	X	X	X			X			X	X	X	X	X	X	
	inspection of utility corridor maintenance			X	X	X	X	X	X		X		X		X			X		X	X	X	X	

Table 9. 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

Monitoring and Management Activities on the Balcones Canyonlands Preserve (City of Austin tracts)		Barton Creek macrosite					Cypress Creek		North Lake Austin macrosite					South Lake macrosite				West Austin macrosite			
		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	Ulrich
Monitoring Activities	mist-net, band, and spot-map golden-cheeked warblers	X	X					X			X			X		X	X				X
	search for banded golden-cheeked warblers	X	X					X			X			X		X	X				X
	spot-map black-capped vireos								X												X
	karst faunal surveys	X	X					X		X			X							X	
	cave cricket exit counts	X	X					X		X			X							X	
	jollyville plateau salamander surveys																				
	bracted twistflower monitoring	X	X																X	X	X
	canyon mock-orange monitoring																				
	vegetation monitoring																				X
	fuel moisture sampling of junipers									X							X				
	white-tailed deer surveys						X	X		X		X		X		X	X				
	monitoring of oak wilt	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					
	red imported fire ant control	X						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	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	X	X
	maintenance of roads, fences, signs	X	X	X			X	X	X	X	X		X	X	X	X	X				X
inspect utility corridor maintenance															X						

In addition, BCP staff conducted or coordinated the following:

BARTON CREEK MACROSITE – City of Austin

Barton Creek Wilderness Area and Greenbelt, and the Friesenhahn tract

- Found and mapped unauthorized camps, and, with Austin Police Department officers, evicted squatters.
- Austin Parks and Recreation Department (PARD) staff assisted with the inventory of fire risk around the boundary of this macrosite.
- Assisted PARD staff on a volunteer-organized full-day invasive-plant removal event.

Senna Hills

- Trimmed trees and brush encroaching upon, or at risk of falling on, a neighbor's fence, in Dec. 2011 and again (drought-killed trunks) in Sept. 2012.

BULL CREEK MACROSITE – City of Austin

Upper Bull Creek Unit

Bowman

- Monitored and tested Jollyville transmission line water well: coordinated with COA WP staff as well as various private consultants hired by the City of Austin.

Franklin

- Continued monitoring of the Cistern Spring/Jollyville Plateau salamander habitat restoration project.
- Collected seed from locally rare, spring-associated plants; seed subsequently sowed at the newly-protected Cistern Spring fenced area.
- Monitored water level at springs and salamander sites; due to drought conditions, water levels dropped very low by July.
- Monitored and tested Jollyville transmission line water well: coordinated with COA WP staff as well as various private consultants hired by the City of Austin.
- City of Austin Watershed Protection staff added monitoring equipment to wells and springs.

Gass Tract

- Fenced western boundary of property, met with neighbor regarding property boundary issues, which were resolved.
- Investigated a possible sewer/waterline leak, after site visits and monitoring of water samples, WP staff determined that most if not all flow to the spring is natural.

Hanks Tract and Gardens at Bull Creek

- Continued to monitor the Jollyville Plateau salamander habitat restoration (removal of a low water crossing).
- Repaired sewer lift station gate.
- Met with AWU storm water maintenance staff, removed large amount of woody debris blocking the flood retention facility culvert, thus allowing for quick discharge of flood retention area, protecting existing GCWA habitat.
- Due to drought conditions, regularly monitored springs and spring runs to determine potential negative impacts to the Jollyville Plateau salamander.

Lanier

- Monitored and tested Jollyville transmission line water well: coordinated with COA WP staff as well as various private consultants hired by the City of Austin.
- City of Austin Watershed Protection staff added monitoring equipment to wells and springs.
- Monitored water level at Lanier spring, due to drought conditions spring was dry by early July. Continued to monitor spring after flows returned to make certain that salamanders were not prevented from retreating back to the spring by a recently installed weir (luckily flows have been adequate, negating to need to remove the weir).

Sam Hamilton Memorial Reserve West

- Led the annual night hike, focusing on the sounds at night.
- Conducted Golden-cheeked Warbler hikes in April and May.
- Monitored and tested Jollyville transmission line water well: coordinated with COA Watershed Protection staff as well as various private consultants hired by the City of Austin.

Middle Bull Creek Unit

Jester Estates Cave Preserve

- Investigated herbicide poisoning from multiple homeowners including probable fire ant baits. Talked with neighbors regarding herbicide poisoning and illegal dumping of pool water into the preserve.
- Worked with Watershed Protection staff on a new hydrological study of the cave, preliminary results suggest that the subsurface drainage basin is much larger than the footprint of the preserve.

Kent Butler Ecological Reserve

- Friends, colleagues, and family met on site to honor Kent Butler.
- Met with one neighbor of Ivanhoe off of Amelia Cove. The neighbor wanted to clear vegetation that is encroaching into their property and then replace his decaying fence. BCP staff assessed the site, flagged the trees that could be cut, and monitored the site closely to make certain that it complied.
- Documented serious vandalism, including one deer feeder that was smashed as well as two cowbird traps. Staff increased patrols and camera surveillance on site.
- Fenced the southern and the final stretch of the western boundary.
- Mapped possible oak wilt center (death of trees was likely due to drought stress and not oak wilt)

Lower Bull Creek Unit

Forest Ridge

- Prepared and presented hikes for those requesting a permit to hike through the Bull Creek Preserve during Golden-cheeked Warbler breeding season.
- Trail work volunteer day: volunteers repaired the trail and erosion problems.

CYPRESS CREEK MACROSITE– City of Austin

Lime Creek/Austin Simon

- Prep work for a new perimeter fence along the northern boundary.

NORTH LAKE AUSTIN MACROSITE– City of Austin

Parke West/Coldwater/Cowfork/Long Canyon/Vaught Ranch

- Prep work for the installation of a new perimeter fence along the northern boundary of this property.

- Installed a 5,350 foot game fence on southern boundary of Long Canyon.

Cortaña

- Devoted many hours to discouraging trespass on an encroaching section of hiking trail constructed by River Place Municipal Utility District. Work involved patrolling the trail (with assistance from Travis County Sheriff's department), mounting game cameras and reviewing film taken by them, and (with help from volunteers) constructing and re-constructing barricades. Barricades were repeatedly removed or bypassed, and the cameras eventually stolen.
- On November 14, 2011, found vandalism of trees behind a neighboring home at 10805 Pelican Point. Sent cease-and-desist letter to this neighbor and another where vandalism had been found in September.
- Constructed game fences behind two neighboring properties where trespass and vandalism had occurred.
- Engaged an experienced American YouthWorks crew to improve a shaded fuel break originally created in 2010 behind the adjacent River Place neighborhood
- Organized and directed a cleanup of debris and tall weeds with neighbors and volunteers along this same boundary
- Found a male Black-capped Vireo on June 21 that had been banded at Balcones Canyonlands National Wildlife Refuge in 2011.

Emma Long Park and Preserve

- Orion, a private consulting firm in Austin, conducted white-tailed deer surveys along City Park Road and provided the City of Austin BCP with the data.
- Completed a 2000-foot-long trench to contain an oak wilt center, east of the Turkey Creek Trail, near City Park Road. The trench was filled in and covered with mulch from slash that had been cleared from the trench path.
- Directed an American YouthWorks crew constructing erosion controls on the finished trench.
- Initiated monthly meetings with PARD staff in March 2012 to discuss education/outreach and management issues at Emma Long and Mount Bonnell. Provided funding for a cooperative effort with PARD to develop an education kiosk and signs for Turkey Creek Trail (originally dedicated for Emma Long Motocross Park, but a PARD grant is covering this kiosk). Both kiosks and signs will be installed in 2013.
- Inspected work done by Friends of Turkey Creek to re-route a segment of the Turkey Creek Trail and restore the old trail. Friends of Turkey Creek disbanded, and PARD is

now taking over responsibility for follow-up monitoring and reporting. AWU and PARD are covering the costs of the educational kiosk.

- Gave presentations to Environmental Board and Parks Board on plans to close and restore Connors Creek in the Motocross Park, which is currently being used as an unauthorized and unsustainable trail.

SOUTH LAKE AUSTIN MACROSITE – City of Austin

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 JJ&T).

Bohls

- In February 2012, construction began on the WCID 17 wastewater treatment plant at the entrance to the Bohls tract. In September 2012, a de-watering operation resulted in a major sediment load deposit onto the Bohls tract, 300 feet by 50 feet in size. A stop-work order was issued by the City of Bee Cave. The sediment was removed by the contractor and construction recommenced.

Commons Ford Ranch Park

- Ongoing prairie restoration project. Vegetation surveys and Project Prairie Bird surveys conducted by volunteers.

Double J&T

- Completed a 3850-foot-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.
- Directed, and provided materials for, an American YouthWorks crew constructing erosion controls on the finished trench.
- Assisted researcher from Texas Forest Service sampling statewide tree deaths due to drought; three sample sites on this tract.

Reicher Ranch

- Continued restoration of golden-cheeked warbler habitat on the grounds of the office headquarters and surrounding areas.
- Monitored the vicinity of Emmaus House in the Reicher office compound for use by Golden-cheeked Warblers prior to, and during, replacement of the building's roof in July; altered a plan to cover the chimney during the project when an active Chimney Swift nest was discovered there.

- During a series of consensus-building meetings with WCD staff, developed a site plan for the Reicher Ranch office compound.

Schramm Ranch

- The entire southern boundary of Schramm Ranch was game-fenced by a private developer in May 2012.
- During a storm event, which occurred on September 18, 2012, an unknown amount of sediment was discharged from 3 locations along the boundary of the adjacent Cielo development. Sediment removal and subsequent restoration efforts were ongoing at the time of this report.

WEST AUSTIN MACROSITE – City of Austin

Mount Bonnell

- Assisted with the planning, organized by the West Point Society, of a trash clean-up of the cliff face by an Austin Fire Dept. crew early in 2012
- Initiated monthly meetings with PARD staff in March 2012 to discuss education/outreach and management issues at Emma Long and Mount Bonnell. Working with PARD on planning for an ornamental iron fence, financed at least in part with AWU funds, to discourage trampling of bracted twistflowers at the summit.
- Rejected a second round of the West Point Society’s proposed tree trimmings for “view improvement,” on the grounds that the plan included no consideration of the effects upon bracted twistflower habitat, and would likely be detrimental.

Vireo Preserve

- Took photo points (established in October 2010) of the habitat restoration areas in March 2012.
- Planted 40 bracted twistflower rosettes (grown from seeds collected near Mt. Bonnell and provided by Walter Stewart under BCP research permit) in December 2011. Also found several volunteer plants in and near cages from Dr. Norma Fowler’s 2009 study. Protected the plants with cages, provided water and soil amendments, and monitored plant growth.
- Led guided hikes highlighting the historical significance of this site as the largest Black-capped Vireo colony within the BCP and habitat restoration plans.
- Initiated multiple adaptive management projects to create black-capped vireo habitat in areas that are currently not habitat for the vireo or golden-cheeked warbler due to past land use activities. In some areas, particularly on the slopes, soil loss has greatly reduced

the revegetation potential. BCP partners (City of Austin, Travis County, Wild Basin, and St. Edwards University) are exploring management techniques to restore these degraded areas. Adaptive management includes using locally and commercially available materials (mulch, mulch socks, biochar, mycorrhizal fungi, and soil amendments) to help rebuild soils and promote regeneration of woody plants. Mulch is a common by-product of juniper-oak forest clearing and thus readily available for habitat restoration projects. Allowing mulch to age and “compost” contributes additional nutrients and mycorrhizal fungi. Biochar is a low temperature charcoal produced from the biomass of wood and leafy plant materials, and is a commercially produced soil amendment that increases plant growth yields by contributing carbon and increasing mycorrhizal fungi activity. Other soil amendments used to date include organic fertilizers, composts, and/or mycorrhizal fungi inoculants.

City of Austin 2012 BCP Outreach and Volunteer Program

October 1, 2011 to September 30, 2012 marked a successful year for the City’s BCP Outreach program. The City’s BCP outreach program includes a variety of activities that provide citizens access to the BCP; opportunities to learn about the wildlife, flora and fauna that call the BCP home; and options to volunteer to help manage, monitor and improve the City’s 13,600 BCP acres. Volunteers extend staff ability to complete essential job functions. In addition, volunteers act as ambassadors to the community by helping to lead volunteer activities; guiding interpretive hikes open to the public and by communicating with fellow citizens about their experience working with the BCP.

2012 Highlights for BCP’s Education, Outreach and Volunteer program include:

- The BCP program benefitted from the efforts of **volunteers investing** an impressive **2094 hours** in many different types of projects. This number translates into the equivalent of one additional staff.
- Volunteers contributed over **698 hours** of personal time to monitor Golden-cheeked warblers. This immense time commitment from volunteers helped to document a record number of banded Golden-cheeked warblers.
- Airmen’s Cave was gated in 2012. As a result volunteers host cave open houses that allow individuals to explore the cave. Eight Airmen’s Cave Open Houses were hosted in 2012 allowing 53 people to explore the cave.
- As part of the Kent Butler Symposium, BCP staff led tours for attendees through the BCP tract newly renamed the Kent Butler Ecological Reserve. In May 2012 a boulder was installed to mark the entrance to the Reserve.

- The wildfire conditions of 2011 reached epic proportions. With this came challenges for improving education and outreach activities associated with wildfire mitigation and education. In January 2012, BCP staff partnered with River Place neighborhood to conduct a boundary clean-up.
- **95 participants** took part in **13 BCP volunteer trainings** including Land Steward Training, Property Monitoring Training and Invasive Species Corp training.
- Fuel moisture monitors continue to contribute vital fuel moisture data to help monitor the potential for wildland fires. In 2012 these volunteers contributed 100 hours.

The table below includes a summary of all outreach and volunteer projects for the City of Austin’s BCP in 2012.

Table 10. City Of Austin’s BCP Outreach and Volunteer Summary for FY12.

Type of Activity	BCP Events	BCP Participants
Special Events	4	510
School presentations	2	1150
HOA/NA	2	10
Community Orgs	4	178
Teacher Institute	1	48
COA BCP Hikes	16	293
Hike Guide Trainings	2	15
Bull Creek Permit Hikes	3	43
Volunteer Workdays	9	142
Volunteer Trainings	13	95
Volunteer Hours Contributed	2094	
Totals	43	2472

City of Austin BCP FY2012 Outreach and Volunteer Program Photo Review



TRAVIS COUNTY

At the close of FY12, Travis County managed a total of 7,438 acres of endangered bird habitat dedicated to the BCP. In addition, Travis County managed two new cave tracts dedicated to the BCP with acreage not counted in this total. Travis County staff conducted a variety of resource monitoring and management activities on County-managed BCP lands in FY12 (Tables 11 and 12). Many of these activities are described in more detail in Appendices H, I, J, K, and L. Other notable management activities are further described in this section. Additionally, the annual report for Wild Basin Wilderness Preserve can be found in Appendix M. Wild Basin is owned by Travis County and managed under contract by St. Edwards University.

Other Notable Tract Management Activities

Constructing and maintaining boundary fences is an important aspect of Preserve management. In FY12, Travis County installed 1,045 linear feet of boundary fence on the Grandview Hills North tract and 900 linear feet of boundary fence on the Cuevas East tract.

Two major BCP road projects occurred in FY12. Travis County Road and Bridge staff repaired a small section of service road along a creek crossing on the Grandview Hills North tract. A contractor was utilized to grade and repair a 2,000 foot section of a gravel service road on the Volente tract. Both of these sections of road had been damaged during the heavy September 2010 rains resulting from Tropical Storm Hermine. More minor road repairs and vegetation trimming along roads was conducted on several other tracts by BCP staff and volunteers.

Travis County BCP staff coordinated with a number of utility companies on projects that occurred on the BCP in FY12. In December 2011, Pedernales Electric Co-op (PEC) did some tree trimming under their utility lines which cross through the New Life, Spezia, Volente, and Snowden tracts. In February 2012, Austin Energy (AE) trimmed under their transmission lines on the Ribelin and Sam Hamilton Memorial Reserve East tracts. AE worked with County staff to do some precise mechanical and hand clearing along their transmission lines to enhance the area for black-capped vireos, as well as meet AE's requirements to remove the vegetation growing too close to the lines. Staff also worked with River City Engineering and their subcontractors to facilitate the installation of a water line to service the new Water Treatment Plant #4 adjacent to the Lucas tract and FM 620. Issues that were addressed on this project included erosion control, tree protection, and removal and replacement of a portion of the boundary fence.

Table 11. FY12 Monitoring and Management Activities on Tracts Managed 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	Colina Vista	Concordia	Karnik/Richards/Wendland	Origer	Ribelin	Sam Hamilton East	Woody Hollow	Franzetti/Webb	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						
	spot-map black-capped vireos																		
	presence/absence survey for black-capped vireos						X						X						
	karst surface monitoring	X		X			X												
	karst faunal surveys																		
	cave cricket exit counts																		
	Jollyville plateau salamander surveys							X											
	deer surveys																X	X	
Management Activities	deer control								X										
	feral hog control	X		X															
	cowbird control																X		
	red imported fire ant control																	X	
	non-native plant control	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, and dumping	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	maintenance of roads and/or fences																		

Table 12. FY12 Monitoring and Management Activities on Tracts Managed by Travis County within the Cypress Creek Macrosite.

Monitoring and Management Activities on the Balcones Canyonlands Preserve (Travis County Tracts)		Cypress Creek Macrosite																				
		Bunten	Collins	Cuevas East	Cuevas West/TSNL	The Crossings	Grandview Hills North	Grandview Hills South	King/Atwood/Blake	Lake Perspectives	Lime Creek Unit	Lucas/ Lake Travis Bluffs	New Life	Nootsie	Romberg	Snowden	Spezia	Toops	Vireo Ridge/Stratton	Vista Point	Volente	
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						
	spot-map black-capped vireos						X												X			
	presence/absence 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		
	cave cricket exit counts			X	X						X									X		
	Jollyville plateau salamander surveys	X					X						X									
	deer surveys				X		X	X						X					X	X		
Management Activities	deer control				X		X		X	X		X	X	X		X			X	X	X	
	feral hog control													X				X				
	cowbird control																	X				
	red imported fire ant control			X	X						X									X		
	non-native plant control	X		X	X	X					X					X			X			
	black-capped vireo habitat restoration											X										
	trash removal			X	X		X			X			X		X				X	X	X	
	patrol for evidence of trespass, vandalism, and 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 and/or fences			X		X	X							X					X	X	X	

In FY12, Travis County BCP staff observed a number of problems on the Greenshores Conservation Easement tract associated with a wastewater drip irrigation system that is allowed on the tract by the Greenshores of Lake Austin's 10a Permit agreement with USFWS. This effluent drip irrigation system has been a persistent problem for years due to inadequate mulch cover and repair of the resulting damaged and severed lines caused by wildlife chewing holes in them. This damage caused effluent to leak or spray out which left puddles, eroded what mulch cover still existed, and exposed more lines which were then accessed and compromised by wildlife, further exasperating the problem. In May 2012, County staff met with City of Austin Texas Pollutant Discharge Elimination System staff to show them the leakages, including one spot where effluent was draining into Connor Creek. City of Austin staff made a complaint to the Texas Commission on Environmental Quality (TCEQ) who cited the owners of the system for breakages in the irrigation line. The owners made some repairs, but not all of the repairs needed to make the system work property. County staff will continue to closely monitor the irrigation system for signs of damage and work with City and County staff on enforcement efforts needed.

Travis County Wildfire Preparedness

Travis County staff actively works both on the Preserve and within the community to reduce the risk of wildfire and to be prepared in the event of a wildfire. Travis County's BCP program is committed to 1) ensuring that public safety and firefighter safety are the first priority for all fire management activities; 2) continuing to work to protect property from wildfire; and 3) meeting its obligations to protect endangered species habitat from loss due to wildfire. The BCP is surrounded by neighborhoods and roads and some tracts have power lines running through them. These areas where man-made development abuts natural terrain and vegetation are known as wildland-urban interface. The goal of management within the wildland-urban interface is to reduce the probability of accidental ignition and escalation from surface to crown fire, thereby minimizing risk to habitat and adjacent structures. Some of the wildfire preparedness activities that Travis County Natural Resources staff participated in during FY12 included:

- Staff prepared and submitted a Hazardous Fuel Mitigation Grant to the Federal Emergency Management Agency (FEMA) in March 2012. If the grant is awarded, it will provide \$267,700 in funds (\$200,775 from grant, \$66,925 from County match) to reduce fuels within the wildland-urban interface. This year, BCP staff identified, assessed, and prioritized about 25 linear miles of interface along neighborhoods, infrastructure corridors, and roads that would benefit from fuel reduction efforts.

- BCP staff received approval in the FY13 Budget to spend up to \$100,000 to do fuel reduction projects on stands of dead trees which occur intermittently throughout the BCP. The stands of dead trees, primarily Ashe juniper but also some deciduous trees, are the result of the ongoing drought. In FY12, BCP staff worked to assess and prioritize which stands of dead trees pose the greatest wildfire risk and these areas will be targeted for removal in FY13.
- BCP staff worked with local neighborhoods on two workday projects to remove dead plant material on the BCP from behind neighborhood homes. One project occurred in the Savannah Point neighborhood of Steiner Ranch in November 2011 and one project occurred on Wild Basin Preserve adjacent to the Yaupon Valley neighborhood of West Lake Hills in September 2012. Staff, neighbors, and volunteers participated in the workdays.
- BCP staff participated in City of Austin/Travis County Joint Wildfire Task Force meetings and Mitigation/Prevention sub-group meetings. This Task Force is an interagency group of fire and emergency management professionals who are planning Wildland/Urban Interface protections for the community. They are working on a county-wide Community Wildfire Protection Plan (CWPP).
- Staff met with several of the neighboring homeowner associations along with Austin Fire Department and other Emergency Service District staff and discussed Firewise practices and provided Ready-Set-Go brochures. Ready-Set-Go information was also added to the County website.

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 Park Rangers. These Park Rangers work under Travis County's Parks Division and are commissioned Texas Peace Officers operating as Deputy Sheriffs under the Travis County Sheriff's Office (TCSO) and are certified by the Texas Department of State Health Services as Emergency Medical Technicians. In FY12 there were 15 documented trespasser encounter incidents (two trespassers on motorized dirt bikes were arrested), eight incidents of Criminal Mischief (cut locks, stolen signs, and cut fences), and one case of loose livestock (herd of cattle on the Webb tract).

The Park 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 staff are 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.

Travis County BCP Volunteer and Outreach Programs

Volunteer Program Activities

Travis County BCP benefited from the efforts of several hundred volunteers who contributed a total of 2,174 hours of their time towards many different types of projects in FY12 (Table 13). Besides training, volunteers spent their time on the following projects: biological monitoring, wildlife management, non-native plant removal, vegetation surveys, maintenance, education and outreach, and data organization. The Volunteer Program provided the public with an opportunity to see and learn about the BCP, while also contributing to Preserve management.

Table 13. Volunteer Hours Contributed to Travis County’s BCP program in FY12.

Type of Activity	Number of Hours
Training	67.5
Bird Monitoring	334.25
Jollyville Plateau Salamander Monitoring	93.5
Karst Biological Surveys/Cricket Counts	112.0
Wildlife Management Activities	132.5
Non-native Plant Removal	254.0
Vegetation Surveys	108.0
Aquatic Water Quality Monitoring	85.0
Data Management	246.25
Public Education and Outreach	25.0
Maintenance	716.0
Total	2174.0

Education and Outreach Activities

Travis County presented information about the BCP at hikes and tours, community meetings, school programs, and public events. Approximately 1,345 individuals were reached through these efforts (Table 14).

Table 14. Travis County BCP Education and Outreach Summary for FY12.

Type of Activity	Total Events	Total Participants
Special Events	4	305
Children’s Programs	14	387
University Programs	7	124
Community Programs	11	230
HOA/Neighbor Meetings	9	110
BCP Hike/Lecture Series	6	145
Other Hikes/Tours	10	44
Total	61	1,345

Some of the Travis County BCP education and outreach efforts in FY12 included:

- Travis County staff participated in and helped organize a number of special events this year including a snake safety class for County Parks staff, the Four Points Middle School’s “Science Day”, and a Volunteer Appreciation Event.
- The FY12, the 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. As part of the larger BCP Hike and Lecture Series group effort, Travis County led six events in FY12 including two interpretive educational hikes at the Jollyville Unit and hosting four lectures covering snakes, archaeology, and native plants (held at Concordia University and Wild Basin Preserve).
- Travis County staff led ten other hikes or tours of the BCP to Preserve neighbors and other groups, such as American Youth Works, the Travis County ITS Department, and Concordia University staff.
- Travis County reached out to area children this year by presenting two educational presentations during Summer Camps held at Alma de Mujer. Students learned about the endangered species found in the BCP as well as other local wildlife.

The BCP also served as a living classroom for university students from Concordia University and St. Edwards University. Travis County granted Educational Permits to several professors from these two universities which allowed them to take students onto the BCP for tours and to

get experience in environmental monitoring (Table 15). Several hundred students had the opportunity to learn about the BCP and get field experience while taking these courses.

Table 15. Professor-led Educational Activities occurring on Travis County BCP Tracts in FY12.

University	Class	Semester	Instructor	Activity	BCP Tract
Concordia	Ecology	Fall 2011	Moyer	Soil/Water Quality Analysis	Concordia
Concordia	Zoology	Fall 2011	Meissner	Tours	Concordia
Concordia	Various	Fall 2012	Meissner	10 Tours	Concordia
Concordia	General Chemistry	Fall 2012	Koeck/Whitson	Water Quality	Concordia
Concordia	General Chemistry	Fall 2012	Koeck	Tour – medicinal plants	Concordia
Concordia	Organic/Biochemistry	Fall 2012	Koeck	Tour – medicinal plants	Concordia
St. Edwards	Entomology	Fall 2012	Abbott	Tour	Wild Basin
St. Edwards	Drawing from Nature	Summer 2012	Menges	Landscape Drawing	Wild Basin
St. Edwards	Environmental Science	Spring 2012	Beck/Swartz	Deer Management	Wild Basin
St. Edwards	Vertebrate Biology	Fall 2012	Robinson	Tour	Wild Basin
St. Edwards	Introduction to Research Experience	Summer 2012	Scioli	Tour/Soil Analysis	Wild Basin

THE CITY OF LAKEWAY

Refer to Appendix N for a brief report for the City of Lakeway’s management of Schramm Ranch. A more extensive report may be delivered to the USFWS after the submission date of this annual report.

LOWER COLORADO RIVER AUTHORITY

Annual Status Report for the Balcones Canyonlands Conservation Plan
 October 1st 2011-September 31st 2012

Mitigation Credits Used

The Lower Colorado River Authority debited 6.3 acres from its mitigation bank balance between October 2011 and September 2012.

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 7049 students, teachers, and visitors from October 1, 2011 to September 30, 2012
- Preserve staff conducted routine property monitoring and maintenance including fence repair and signage.

McGregor

- Deer harvest activities were not conducted at McGregor during the 2011-2012 season. No deer or feral pigs were removed from the preserve this year.
- 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 9 and 12, 2011 for new or returning CTCA McGregor Good Neighbor Program permittees. During this reporting period, there were 14 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.
- LCRA partnered with Travis County/COA to intensively survey a 100 acre plot that combined the McGregor Preserve and the adjoining TC Lake Perspectives tract for golden-cheeked warbler. The final report for the survey and research is included in the City of Austin's 2012 avian ES report. (Appendices F & G)

Wheless

- Golden-cheeked warbler surveys were conducted according to USFWS protocol on two approximately 100 acre plots by LCRA staff biologist. Approximately 10-12 territories were located within the prime plot and 2-3 territories occurred in the transitional plot during the survey period.

- 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, surveying the deer population, and monitoring for oak wilt.

THE NATURE CONSERVANCY OF TEXAS

Annual Report for Barton Creek Habitat Preserve 2012

October 1st 2011-September 31st 2012

Science / Stewardship

Annual surveys (point count) were completed for the black-capped vireo (BCV) and golden-cheeked warblers (GCW) to determine population densities. Texas A&M University conducted transect surveys in a study to determine the impact of expansion and construction of state highway 71 on the GCWs. A total of 109 GCW were found and 55 paired territories were monitored for nesting activity. One male BCV was observed on a single occasion. Brown-headed cowbirds are being removed from the property with the use of a shotgun.

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. Population is estimated through spot-light surveys, stand counts and camera surveys.

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

Due a major drought early in the year, no prescribed fires were completed on the preserve in 2012. Three units totaling approximately 225 acres are ready to be completed during the winter season, approximately one mile of new contingency line was installed at the preserve in preparation for wildfires and to be used as a fire line for a potential prescribed fire in the future.

Education/Outreach/Volunteers

The preserve hosted approximately 1100 visitors and 150 volunteers totaling 250 hours of work. Groups included the Boy Scouts of America, Girl Scouts, Texas Parks and Wildlife,

Balcones Canyonland Preserve visitors, Austin Youth River Watch, Audubon Society, the University of Texas, St. Edwards University, Texas A&M University, the University of Washington, and the University of Missouri.

TEXAS CAVE MANAGEMENT ASSOCIATION

The Texas Cave Management Association manages two of the caves listed on the permit (Lost Oasis Cave and Whirlpool Cave). Management activities on TCMA cave preserves for FY 2012 have been listed below:

Annual Report for Lost Oasis Cave Preserve Calendar Year 2012

Science / Stewardship

- There was a cricket count in February conducted by Todd Bayless with Travis County. About 450 crickets were counted, 24 fire ant mounds were flagged and an invasive thistle was identified. Preserve maintenance was not conducted in 2012.
- Hunting was not nor will ever be conducted on the preserve.
- Although no prescribed fires have occurred on the preserve, the total parcel (3.6 acres) is ready to be burned if permitted by the City of Austin.
- A complete management plan was prepared for the TCMA Board in 2011. This plan was reviewed and edited in FY12 for approval in FY 2013.
- There is a new volunteer preserve manager (Ryan Monjaras) and no paid staff.

Education/Outreach/Volunteers

In FY12, 1,038 individuals participated in trips through Whirlpool Cave, generally as far as the Travis County Room. These groups included school field trips (such as Austin Community College and the Girls School of Austin, Not Your Ordinary School), Austin Nature and Science Center camps, scout groups, Austin Fire Dept. rescue practice, and recreational cave groups.

TRAVIS AUDUBON SOCIETY

Travis Audubon Society owns and manages 680 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 FY12 is included as Appendix O.

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.*