Balcones Canyonlands Conservation Plan

2015 Annual Report

(October 1, 2014 – September 30, 2015)

USFWS Regional Section 10(a)(1)(B) Permit No. TE-788841-2

Travis County – City of Austin



Submitted by
The Balcones Canyonlands Conservation Plan
Coordinating Committee
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14. Jacot, J. *Non-target tree mortality after exposure to Imazypr at Wild Basin.* St. Edward's University. 2015.
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16. Johnson, D., A. Hernandez, M. Sanchez, A. Brebion, V. Johnson, B. Navoicheck, and S. Garcia. *Determining interannual variability in vegetation structure and exploring plant leaf decomposition and fungal metabolism at Wild Basin Wilderness Preserve.*
17. LeBraun, Edward G. *Distribution and Prevalence of native fire ants in Balcones Canyonlands Preserve.* Department of Integrative Biology, University of Texas at Austin. 2015.
18. Millan, P., A. Maxon and S. Sheputa. *The relationship between white-tailed deer, ground cover, and proximity to residences.* St. Edward's University. 2015.
19. Salas, K. and A. Pasquier. *Predicting the arrival time of emerald ash borer to Texas based on estimated speed of dispersal.* St. Edwards University. 2015.
20. Salinas, Narda. *Analyzing Changes in Ant Communities after Habitat Management for an Endangered Songbird (Vireo atricapilla).* 2015.
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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 30-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).

Table 1. Species Covered by the Balcones Canyonlands Conservation Plan.

Common name	Scientific name	Status
Black-capped vireo	*Vireo atricapilla*	Endangered
Golden-cheeked warbler*	*Setophaga chrysoparia*	Endangered
Tooth Cave pseudoscorpion	*Tartarocreagris texana*	Endangered
Tooth Cave spider	*Neoleptoneta myopica*	Endangered
Bee Creek Cave 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 concinna*	Species of Concern
Spider	*Neoleptoneta devia*	Species of Concern
Spider	*Eidmannella reclusa*	Species of Concern

Harvestman	*Texella spinoperca*	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
Pseudoscorpian	*Tartarocreagris 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

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

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 or Preserve). 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. Until 2014, the sole BCP Managing Partner was 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. On 7 February 2014, the City of Sunset Valley entered into a BCP Managing Partner Agreement and designated 21.585 acres, known as the Gaines Greenbelt, to be included as part of the BCP. The Gaines Greenbelt mitigates for impacts to golden-cheeked warblers, black-capped vireos, and karst species due to maintenance, improvement and public use of the Gaines Greenbelt Trail, and future impacts associated with social trail closure, fencing and signage.

The Nature Conservancy of Texas (TNCTX) and the Travis Audubon Society (TAS) also manage lands for public and environmental benefit within the BCP. In

April of 2015 Travis County purchased a conservation easement over 675 acres of the Travis Audubon Society Baker Sanctuary.

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 year.

Development Activity within the Permit Area

The City of Austin development activity report for Fiscal Year 2015 (FY15), which details building permits issued by the City of Austin west of Loop 1 within the Permit area, is located in Appendix A.

The City of Austin development activity report for Fiscal Year 2015 (FY15), which details building permits issued by the City of Austin west of Loop 1 within the Permit area, is located in Appendix A.

The Travis County development activity report for FY15, which details building permits issued by Travis County in precincts 2 and 3 within the Permit area, is located in Appendix B.

Mitigation Credit Balance

The City of Austin's BCP staff administers the Capital Improvement and Infrastructure Development Project mitigation credit system on behalf of the BCCP Coordinating Committee. The mitigation needs of the Permit Holders and the Managing Partner for these projects are provided under the terms of the regional Permit. Mitigation credits are issued at a rate equal to the number of acres within the Preserve system managed under the terms and conditions of the Permit and the HCP/FEIS (U.S. Fish and Wildlife Service, 1996a and 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 (Table 2).

Table 2. Infrastructure Projects Mitigated Through the Use of Mitigation Credits in FY15 by Participating Agency**.**

City of Austin	
Starting City of Austin Balance	**11,588.44 acres**
New preserve additions (credits) –	10
AE – RM2244 @ Westlake	0.2
WPD – Sendera South Wet Pond Geotechnical Investigation	0.1
AWU – Four Points Force WW Main	0.7
AWU – Parmer Lane WW Interceptor	4.0
AE – Reconductor / Pole Replacement, W Hwy 71	0.1
PWD – VCT Phase 2a Trail Alignment	1.2
PWD – River Place Water System Improvements	0.2
Remaining Mitigation Credits	**11,591.94 acres**
Travis County	
Starting Travis County Balance	**4,799.491 acres**
New preserve additions (credits)	1,200.714
Arkansas Bend Park Improvements	79.0
Remaining Mitigation Credits	**5,921.205 acres**
Lower Colorado River Authority (LCRA)	
Starting LCRA Balance	**2,449.4 acres**
New preserve additions (credits) –	0
Marshall Ford to McNeil (T-160) upgrade - Phase 2	2.4
Remaining Mitigation Credits	**2,447.0 acres**

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.

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 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 FY15, 16 Participation Certificates were issued as follows: nine for single family residences, four for subdivisions, two infrastructure projects and one project consisting of fire breaks and trails (Table 3).

Funds Collected through Participation Certificates

A total of $530,675.00 was collected through the sale of Participation Certificates in FY15 (Table 3). To facilitate a 50/50 split in participation certificate revenue between the City of Austin and Travis County, participants pay the mitigation fee with two checks, half to "BCCP-City of Austin" and the other half to "BCCP-Travis County." The checks are delivered to each agency for separate processing.

Table 3. FY15 Projects Mitigated Through the Purchase of Participation Certificates.

Application #	Date	Name	Category	Amount Paid
0763	10/17/2014	George and Judy Lovelace	Residential	$2,000
0766	11/5/2014	Ron and Erica Sutton	Residential	$2,000
0767	11/7/2014	Mufid Najjar	Residential	$2,000
0756	11/17/2014	University of Texas at Austin, contact: James Carse, Amy Wanamaker	Firebreaks and Trails	$93,200
0592	1/20/15	Nootsie, Ltd	Subdivision	$271,150
0721-C	5/01/15	Travisso, Ltd., Heath Melton	Subdivision	$17,600
0721-D	9/28/15	Travisso, Ltd., Heath Melton	Subdivision	$83,600
0772	1/20/15	Steve and Wendy Hames	Residential	$2,000
0774	1/20/15	John and Dawn Wolf	Residential	$2,000
0776	2/20/15	Sweetwater Sect. 1 Village K,WS-COS Development, LLC.	Subdivision	$37,400
0777	2/20/15	Liga Byrne	Residential	$2,000
0780	4/20/15	Cary and Allyssa Juby	Residential	$5,500
0783	6/17/15	Murry and Dee Fly	Residential	$2,000
0795	8/06/15	Travis Co WCID#17	Infrastructure	$2,750
0770	1/29/15	Google Fiber	Infrastructure	$3,475
0784	8/28/15	Eric and Martha Garcia	Residential	$2,000
			Total:	**$530,675**

Funds Collected through Tax Benefit Financing

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 FY15, Travis County's Tax Benefit Financing Plan generated $13,166,194 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, 1997-2010.

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 also 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 $21,024,166 in FY15 on non-grant land acquisition activities. Purchase of two large tracts, Kotrla and Scott & White, allow for the protection of 949.9 contiguous acres of habitat between the Balcones National Wildlife Refuge and existing BCP parcels. In addition, 678.9 acres were secured for the BCP through other land protection means. This included a conservation easement on 671.4 acres owned and managed by the Travis Audubon. Although this acreage was already counted in the BCP total, Travis County secured a conservation easement to ensure that this habitat is protected in perpetuity. The entirety of the Travis Audubon Baker Sanctuary (715 acres) remains a part of the

BCP. The acreage total of the Travis Audubon Baker Sanctuary was updated to a total of 715 acres from 680 acres based on the inclusion of additional tracts and results of an updated survey. Additionally, 7.5 acres were acquired through an exchange of land management responsibilities between Travis County Parks and Travis County Natural Resources Division. This property exchange included the transfer of 9.4 acres from the Lucas tract from the BCP to Travis County Parks. This parcel surrounds the existing Travis County Park, Tom Hughes Park. The majority of this tract is barren shoreline or lies beneath the normal pool elevation of Lake Travis; 1.2 acres of this acreage was designated GCWA habitat. In exchange, the BCP acquired the 7.5 acre Molberg tract from Travis County Parks. All 7.5 acres of the Molberg tract are classified as confirmed GCWA habitat. Therefore 6.3 acres of GCWA habitat (7.5 acres minus 1.2 acres) were gained through this property exchange.

The City of Austin expended $400,000 on land acquisition during FY15. At the end of FY15, Travis County managed 8,861 acres of land within the BCP, and the City of Austin owned and managed 13,620 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 FY15 BCP land acquisitions are shown by tract in Table 5.

Table 5. Travis County and City of Austin FY15 BCP Land Acquisitions.

Tract	Agency	Date Acquired	Acreage	Total Expenditures *
Lucas Tract	City of Austin	8/24/2015	10.100	$400,000
Montandon	Travis County	12/3/2014	12.892	$110,597
Scott & White	Travis County	2/13/2015	449.942	$4,775,067
Embrey	Travis County	2/17/15	11.955	$305,059
Trails End (Plains Capital)	Travis County	2/25/15	227.837	$4,644,397
Travis Audubon Conservation Easement	Travis County	4/9/2015	n/a*	$3,633,393
Molberg	Travis County	5/19/2015	**7.500	$0
Kotrla	Travis County	7/30/2015	499.988	$7,555,653
		Total	**1,210.800**	**$21,024,166**

* Travis Audubon Conservation Easement secured to ensure property is protected in perpetuity; acreage was already counted in BCP totals.

**A property exchange between Travis County Parks and Travis County BCP resulted in the acquisition of 7.5 acres and loss of 9.4 acres for a net reduction in acreage of 1.9 acres.

Funds Expended for Operations and Maintenance

In FY15, the Permit Holders, LCRA, TNCTX, and the Travis Audubon Society (TAS) spent $2,725,625 on operation and maintenance of BCP lands (Table 6).

The City of Austin spent a total of $1,121,952 for FY15 to fund BCP management expenditures by the Austin Water Utility's Wildland Conservation Division - Balcones Canyonlands Preserve Program (WCD-BCP). This figure understates the City's total expenditures on this program since it does not include (1) work by other staff in Austin Water Utility 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 projects related to offices, and other facilities/ infrastructure. The aforementioned expenditures cannot be readily determined from their program budgets.

Table 6. Annual FY13 through FY15 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	FY 2013	FY 2014	FY 2015	Total Budget: 1996 to Present
City of Austin	$1,237,653	$1,094,110	$1,121,952	$15,701,177
Travis County	$1,341,486	1,220,027	$1,487,673	Up to FY 14 $12,300,992
LCRA*	$76,500	$63,100	$21,000	Up to FY 15 $1,700,679
TNCTX	$10,000	$10,000	$10,000	Up to FY 15 $982,000
TAS	$50,000	$50,000	$85,000	Up to FY 15 $512,986
TOTALS	**$2,715,639**	**$2,437,237**	**$2,725,625**	Up to FY 15 $31,197,834

* Does not include expenditures by Westcave Preserve Corporation

The Travis County Natural Resources budget for the BCP Program in FY15 was $24,892,605. 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 does not include estimated 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 1,210.8 acres to the BCP in FY15, 31,785 acres of black-capped vireo and golden-cheeked warbler habitat have been assembled by the Permit Holders with the assistance of cooperating landowners and entities. Even though the minimum 30,428 acres of endangered bird habitat has now been acquired, additional acreage will still be needed to meet the configuration requirements for the bird habitat blocks by macrosite and to acquire additional specific karst features required in the Permit.

Forty-eight of the 62 caves which are identified to be protected in the permit have been afforded some level of protection. Thirteen 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 BCP is enclosed as Appendix E. Summaries of BCP lands sorted by macrosite and managing entity are attached as Appendices C and D, respectively.

FY 2015 Research or Investigative Reports

Research reports for activities that occurred on the BCP are included as Appendices F through L and Q1 through Q22. 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 COA's BCP tracts are managed by WCD-BCP and PARD with different management responsibilities assigned to each entity (Table 7). PARD operations performs regular maintenance such as mowing, trash pickup, and some trail management activities, while WCD-BCP staff assumes primary responsibility for BCP management and monitoring.

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
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	**13,600.00**

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	Lucas	Lanier	Sam Hamilton Memorial Reserve	Beard Trust	Kent Butler Ecological Resv	Jester Estates Cave Preserve	Barrow Preserve	Bull Cr. Greenblt.	Forest Ridge	Gibson/Nott	Hiller/Hilltop	Jester	Krueger	St. Edwards Park	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
	spot-map black-capped vireos												X				X						
	karst faunal surveys			X									X	X									
	cave cricket exit counts			X									X	X			X						
	Jollyville Plateau salamander surveys & mark/recapture			X	X			X		X	X		X		X								X
	bracted twistflower monitoring																X						
	canyon mock-orange monitoring												X										
	vegetation monitoring										X	X	X				X					X	X
	fuel moisture sampling of junipers																						
	white-tailed deer photo monitoring		X								X												
	monitoring of oak wilt	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Management Activities	deer control		X								X												
	feral hog control		X		X			X		X	X	X	X										
	cowbird control																						
	red imported fire ant control										X			X									
	restoration (planting native plants)				X	X		X			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	X	X
	trash removal	X	X	X	X	X	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	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
	inspect utility corridor maintenance				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 Au macros	
		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
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		X		X	X			
	spot-map black-capped vireos									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
	canyon mock-orange monitoring																				
	vegetation monitoring	X	X						X			X				X		X	X		
	fuel moisture sampling of junipers									X								X			
	white-tailed deer photo monitoring							X						X				X			
	monitoring of oak wilt	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Management Activities	deer control							X						X				X			
	feral hog control																				
	cowbird control																				
	red imported fire ant control							X						X							
	restoration (planting native plants)									X		X				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
	trash removal	X	X	X	X	X	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	X		
	inspect utility corridor maintenance	X	X	X	X				X	X						X	X	X			

In addition to the activities in the tables above, BCP staff conducted or coordinated the following:

BARTON CREEK MACROSITE

Barton Creek Wilderness Area and Greenbelt, and the Friesenhahn tract

- A rule established by Austin Parks and Recreation Department (PARD) managers in 2013, as a result of wildfire concerns raised by citizens, continued in effect, prohibiting any activity that would result in more than minimal slash remaining on-site on PARD-owned properties. This rule essentially stalled all significant invasive plant removal activities in the heavily-infested Barton Creek watershed. However, City staff in the Watershed Protection Department (WPD), coordinating with Austin Fire Department and BCP staff, developed a template to be used by groups wishing to plan an exotic plant removal project. Such a plan would need to be approved on a case-by-case basis.
- Found 80 Bracted Twistflower (*Streptanthus bracteatus*) plants during a one-day census, May 20 (and an additional 16 in an isolated population on April 29).
- With help from Austin Police Department officers and Austin Parks and Recreation Dept. (PARD) staff, removed 25 unauthorized camps, and removed trash from 30 abandoned camps.
- Repaired vandalized airmen's cave gate.

Bohls II

- WTCPUA began construction on the 20' underground water transmission line. Equipment was staged on the permanent easement that runs through the Highway 71 frontage. Restoration of disturbed area and fence replacement is pending and to be completed winter of 2015-2016.

BULL CREEK MACROSITE

Upper Bull Creek Unit

Franklin

- WPD staff oversaw the plugging of several of the monitoring wells; however, a few are still operational so WPD staff can continue to monitor the groundwater in close proximity to the Jollyville transmission line.
- COA BCP staff continued to work with Pedernales Electric Cooperative (PEC) regarding the need to maintain the existing power line and not negatively impact GCWA and Jollyville Plateau Salamander habitat.

Hanks Tract and Gardens at Bull Creek

- Restoration: installed deer fencing around hardwood saplings.

Lanier

- WPD staff oversaw the plugging of several of the monitoring wells; however, a few are still operational so WPD staff can continue to monitor the groundwater in close proximity to the Jollyville transmission line.
- Lanier House: Worked on a demolition plan to remove this attractive nuisance (ongoing).

Lucas

- Recently acquired 10.1 acre tract of land located at the dead-end of Zimmerman Lane. The property is located immediately south of the Gass tract, west of the Sam Hamilton tract, and north of the privately owned 4 points preserve. Closing date was August 24, 2015.
- The property is listed as zone 1, confirmed GCWA habitat on the 1996 habitat maps created as part of the Permit.
- The Jollyville Plateau salamander has been confirmed at springs located on this property.

Sam Hamilton Memorial Reserve West

- Led the annual night hike, focusing on the sounds at night.
- In September 2015, monitored the 3600 shin oak acorns that were planted in November 2013 under dead and live Ashe junipers and in open areas as part of a germination/survival study. Results continue to document highest germination and survival under live canopy and lowest in the open areas.
- WPD staff continued to monitor the ongoing Jollyville transmission line construction located directly under Jollyville Plateau salamander habitat.

<u>Middle Bull Creek Unit</u>

Kent Butler Ecological Reserve

- LCRA completed work on a major upgrade of an existing power line (T-160). COA BCP and WPD staff worked with LCRA in an effort to minimize damage to rare and listed species.

Beard Trust

- Oversaw a contractor completing repairs and a realignment to existing damaged water gaps.

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.
- Coordinated one trail work volunteer day: volunteers repaired the trail and erosion problems.

Jester

- Installed a new section of 8' perimeter fence.
- Discovered a major encroachment by an adjacent property owner who illegally cut many large trees on Jester preserve. Staff oversaw the removal of the downed brush, and the site is still in the process of remediation and possible legal action.

3M

- LCRA completed work on a major upgrade of an existing power line (T-160). COA BCP and WPD staff worked with LCRA on restoration of a few sites.

Bull Creek Greenbelt

- Initiated a new Bracted Twistflower survey site (the Valburn colony) on May 27 and found a total of 16 plants.

CYPRESS CREEK MACROSITE

Lime Creek/Austin Simon

- With help from volunteers, hauled and stacked brush that was left by a survey crew. Worked with Travis Audubon Society to chip the brush to mitigate the fire hazard.
- Repaired fence where damaged from vehicle collisions.

NORTH LAKE AUSTIN MACROSITE

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

- In February 2015, City BCP staff inoculated Japanese Ligustrum logs and stumps with a native Turkey Tail mushroom spawn cultured by Jimm Stack of 100th Monkey Mushroom Farm. Staff are continuing to monitor the logs and stumps to determine whether inoculation with this medicinal mushroom speeds up decomposition.

- Reported a utility pole on Coldwater that was leaning significantly, and worked with Austin Energy for an emergency pole replacement, after finding that the pole's base had rotted.

Cortaña

- Cleared access for, and directed construction by contractors of a game fence to block access to the decommissioned section of the River Place Nature Trail.
- Oversaw Austin Energy (AE) replacement of a damaged utility pole from the boundary with Steiner Ranch. AE needed to trim vegetation to drive equipment through Cortaña to replace the pole.
- As in past years, organized and directed a clean-up of debris and tall weeds with neighbors and volunteers along the boundary from Sun Tree Cove to Pelican Point. In order to prevent unauthorized cutting, staff completed necessary trimming of woody plants before the clean-up day.
- Planned and oversaw construction by contractors of a game fence on the northwestern boundary of the tract, adjacent to Steiner Ranch, where new construction is beginning.
- Collected Shin Oak acorns from the shinnery for use in re-vegetation work and studies elsewhere on the Preserve.
- Continued the intensive exotic plant control effort begun in fall 2014, devoting an additional 10 staff days.
- Lake Austin shoreline restoration project, by Watershed Protection Department, completed in October.
- Collected and planted seeds of woody, shrub-forming plants on a ridge in the middle of the tract, in an area that had been cleared years ago to create Black-capped Vireo habitat.
- Continued fuel-moisture sampling.

Emma Long Park and Preserve

- AWU and PARD staffs continued to meet monthly to discuss conservation issues at Emma Long.
- Continued to work with stakeholders to promote a sustainable trail system that protects Connors Creek within Emma Long Motocross Park. City staff has offered stakeholders the opportunity to use the BCP Trail Master Plan process to plan and construct an alternative sustainable trail to replace the trail in Connors Creek being closed.
- Conducted searches for the rare orchid, Large-flower/Giant Crested Coralroot (*Hexalectris grandiflora*) but did not find any blooming.

SOUTH LAKE AUSTIN MACROSITE

BCP staff participated in the Westcave Christmas Bird Count, where the count circle includes this macrosite (Bohls Ranch, Bohls II, Reicher Ranch, and JJ&T).

JJ&T

- From January to March, staff began an experimental restoration project consisting of twenty-nine 7-meter by 7-meter experimental treatment plots placed along contour in openings with very little soil or vegetative growth. Experimental treatments were combinations of soil manipulation techniques and soil amendments. Soil manipulation techniques included building swales and berms, vertical staking, and vertical mulching. Amendments included shredded mulch, composted mulch, compost tea, and sulfur. A vegetation survey of the plots was completed in October.
- Began restoration of the area surrounding Buddy's old house.
- Lake Austin shoreline restoration project, by Watershed Protection Department, completed in October.
- Conducted winter bird hike.

Commons Ford Ranch Park

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

Reicher Ranch

- Vegetation restoration for barn is ongoing.
- Hosted multiple middle school groups for interpretive activities.
- Hosted a guided hike for the City of Austin Office of Sustainability.
- Continued fuel-moisture sampling.
- Continued restoration of Golden-cheeked Warbler habitat on the grounds of the office headquarters and surrounding areas. Extended the existing habitat restoration area to include the "triangle" by the vehicle pool.
- Began creation of a pollinator garden demonstration area in front of the Caretaker's House.

Schramm Ranch

- Continued to monitor restoration areas and compliance with sediment control measures with the Madrone and Cielo developments.

WEST AUSTIN MACROSITE

Mount Bonnell

- Found just one Bracted Twistflower (*Streptanthus bracteatus*) plant during a half-day census on May 6.
- Continued collaboration with PARD staff on plans for an ornamental iron fence, financed primarily with AWU funds, to discourage trampling of rare bracted twistflowers at the summit. Following public meetings and approval by the Historic Landmark Commission, PARD staff finalized plans in fall 2014, and submitted them to the contractor for estimate of cost. Met with contractors and PARD staff to reach agreement on final fence layout and design.

Ullrich WTP

- Found 48 Bracted Twistflower (*Streptanthus bracteatus*) plants during a half-day census on May 28th. This was 20 plants fewer than were found in 2014.

Vireo Preserve

- In March 2015, City BCP staff inoculated Japanese Ligustrum logs and stumps with a native Turkey Tail mushroom spawn cultured by Jimm Stack of 100th Monkey Mushroom Farm. Staff are continuing to monitor the logs and stumps to determine whether inoculation with this medicinal mushroom speeds up decomposition.
- No Bracted Twistflowers observed in 2015.
- A core group of 6-12 volunteers assisted with habitat restoration, removal of invasive plants, erosion control, and patrols. Volunteer workdays are held weekly from March-June and twice a week the rest of the year.
- Planted many woody and herbaceous plants from the BCP greenhouse and local nurseries.
- Since Wild Basin/Vireo Preserve supports many of the habitat types observed throughout the BCP, is easily accessible, and offers the opportunity to partner with Travis County and St. Edwards University, it is an ideal site to experiment with habitat creation and restoration techniques. Lessons learned at this site should be applicable to other areas within the BCP. We are continuing adaptive management efforts initiated in 2011 to restore areas degraded by past land use by building soils, controlling erosion, and increasing diversity, with the goal of creating and enhancing endangered species habitat. Adaptive management includes installing berms and swales on contour to capture, spread, and sink water, and using locally and commercially available materials (mulch, mulch socks, biochar, mycorrhizal fungi, soil amendments, native seed and plants) 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 micro-organisms. 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.

- In conjunction with the habitat restoration work, St. Edwards University continued two research projects initiated in 2012: abundance, distribution, and diversity of ants in recently manipulated and non-manipulated areas, and soil metagenomics to determine how microbial populations (bacteria, fungi) change in response to soil amendments.

2015 BCP Outreach and Volunteer Program

The education, outreach and volunteer program for the City of Austin's BCP program continues to reach new audiences, expand programs to connect youth to nature and to share information about the unique habitat and partnership that is the Balcones Canyonlands Preserve. Below are highlights of the outreach, education and volunteer program for the City of Austin in 2015.

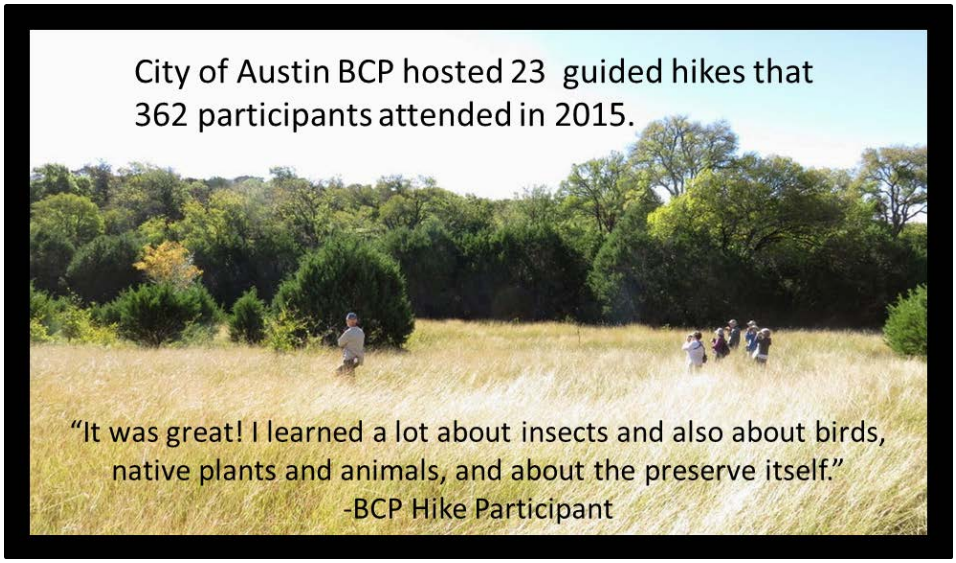
2015 City of Austin BCP Education and Outreach Highlights

The education and outreach program for the City of Austin's BCP program continues to offer guided hikes and field trips for student groups. In 2015, standard field trip activities were developed to allow for a richer experience for students visiting the BCP.

City of Austin BCP hosted field trips to BCP Preserve sites for just under 1000 students. A partnership with AISD pays for the bus transportation.

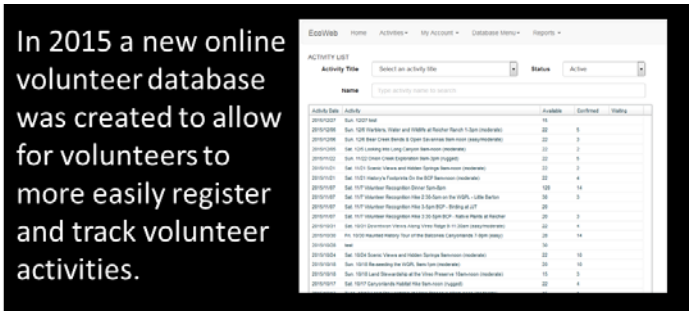


Field trip activities include a golden-cheeked warbler habitat challenge and field methods where students learn to identify banded birds using binoculars. In addition to field trips, the outreach program offered guided hikes, lectures, and homeowner association presentations in FY 2015.



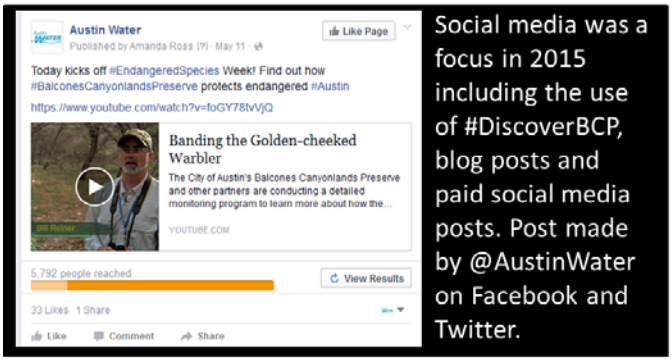
2015 City of Austin BCP Volunteer Highlights

- Vireo Weekly Workdays-Jim O'Donnell led over 20 volunteer workdays (most of these as a volunteer!)
- 42 volunteers collected golden-cheeked warbler resighting data. They collectively volunteered over 600 hours and recorded roughly 500 observations of Golden-cheeked Warblers and found banded GCWAs on 14 occasions within search areas.
- Volunteers collected 96 hours of trail use statistics at six trails on the BCP in the spring of 2015.
- The volunteer coordinator position was vacant for about half of FY15. In May of 2015 Cait McCann took over volunteer coordination for the City of Austin's BCP program.



2015 City of Austin BCP Public Information Highlights

While nothing can replace a physical experience on the Balcones Canyonlands Preserve, communicating with a wider audience through social media, print media, graphics and websites increases awareness and support for the preserve system and permit.



2015 BCP Partners Outreach

Several of the BCP Partners share the BCP Meetup group as a way to host hikes and allow participants to signup online, upload photos and comments on hikes. It has been very successful and continues to grow to over 1000 members since its creation in 2013.

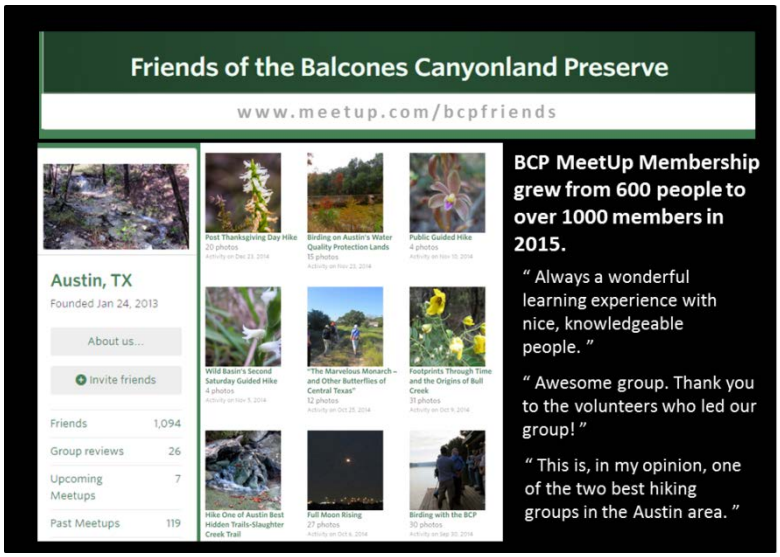


Table 10. BCCP Partners Education and Volunteer Activities Summary for FY15

BALCONES CANYONLANDS PRESERVE

PARTNER EDUCATION ANNUAL SUMMARY

Contributing Partners include: TRAVIS County, City of Austin, Wild Basin St. Edwards University, The Nature Conservancy, Travis Audubon Society

84 YOUTH EDUCATION EVENTS	
FY 15 YOUTH EDU PARTICIPANT TOTAL:	**2978**
66 GUIDED HIKES	
FY15 GUIDED HIKE PARTICIPANT TOTAL:	**886**
12 BCP HIKE AND LECTURE SERIES EVENTS	
FY15 HIKE AND LECTURE PARTICIPANT TOTAL:	**219**
12 SPECIAL TOURS, NEIGHBORHOOD PRESENTATIONS OR LARGER ACTIVITIES	
TOUR PARTICIPANT TOTAL:	**3656**
VOLUNTEER ACTIVITIES	
VOLS. CONTRIBUTED OVER 5544 HOURS DURING FY15	**A COST SAVINGS VALUE OF OVER $122,744**

TRAVIS COUNTY

Travis County staff conducted a variety of resource monitoring and management activities on County-managed BCP lands in FY15, which are summarized in Tables 11 and 12. The wildlife and plant management activities are described in more detail in Appendices H through L. Additionally, the annual report for Wild Basin Wilderness Preserve can be found in Appendix M. Wild Basin is owned jointly by Travis County (164 acres) and St. Edwards University (63 acres) and is managed by St. Edwards University under contract with Travis County.

Travis County had several personnel changes this year as well as some extended periods of staffing shortages. Melinda Mallia filled the Program Manager position in January 2015. That position had been vacant since August 2014. Natural Resources Specialists Renee Fields and William Simper left Travis County employment in March and June 2015, respectively. Their positions were filled by Julie Murray and Blake Sissel in September 2015. Erin Cord vacated the Natural Resources Technician position in February 2015 and Travis Clark filled that position in September 2015. Mike Wallace vacated the Environmental Specialist position in December 2014 and that position was vacant through the remainder of FY15. The Volunteer Coordinator position has been vacant since May 2014. It will be filled in FY16 under the new position title of Community Liaison. Travis Clark and Christopher Weyenberg filled seasonal Natural Resources Technician positions during the spring and summer of 2015.

Infrastructure and Transportation

In FY15, LCRA conducted Phase II of their T-160 (Marshall Ford to McNeil) transmission line upgrade project through the infrastructure corridor on Travis County's Ribelin, Sam Hamilton East, Steiner Ranch and Lucas tracts. Phase I of the project was completed in FY14. Phase II consisted primarily of installing new poles and pulling new line. Travis County staff worked closely with LCRA, the City of Austin, and USFWS to assure that there were minimal impacts to the preserve. The new 138-kV line was energized in June 2015.

Leander Independent School District (LISD) is pursuing an individual 10(A) permit to construct an alternative access road to Vandegrift High School and Four Points Middle School along the infrastructure corridor through the Ribelin and Sam Hamilton East tracts as well as through private 10(A) mitigation lands. In February 2015, Travis County issued a Scientific Research Permit to SWCA Environmental Consultants, which allowed access to the Ribelin and Sam Hamilton East tracts to conduct habitat assessments, cultural resources surveys,

and waters of the U.S. environmental assessments in support of the proposal (see Appendix Q21 for study results). City of Austin and Travis County staff provided support to transportation planners and engineers studying potential solutions and reviewed a draft Habitat Conservation Plan submitted by LISD to USFWS in October 2014.

Table 11. FY15 Monitoring and Management Activities on Tracts Managed by Travis County within the Bull Creek, North Lake Austin, South Lake Austin, West Austin, Pedernales River, Big Sandy Creek Macrosites and Cave Tracts.

	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**	**Big Sandy Creek**	**Cave Tracts**	
		Canyon Vista	**Colina Vista**	**Concordia**	**Karnik/Richards/ Wendland**	**Origer**	**Ribelin**	**Sam Hamilton E**	**Woody Hollow**	**Franzetti/Webb**	**Gray Mountain**	**Greenshores**	**Hereford**	**Steiner Ranch**	**Chandler**	**Medway**	**Hamilton Pool**	**Wild Basin**	**Kotrla Unit**	**Ireland's**	**Stark's North Mine**
Monitoring Activities	spot-map golden-cheeked warblers (100-acre plots)	X					X											X			
	spot-map golden-cheeked warblers (non 100-acre plots)													X			X				
	spot-map black-capped vireos						X												X		
	presence/absence survey for black-capped vireos						X												X		
	karst surface monitoring	X			X		X												X	X	X
	karst faunal surveys																		X	X	X
	cave cricket exit counts																			X	X
	Jollyville plateau salamander surveys			X				X													
	Water quality			X				X													X
	deer surveys																X				
Management Activities	deer control									X							X				
	feral hog control			X			X	X	X												
	cowbird control																X				
	red imported fire ant control																			X	
	non-native plant control	X		X			X							X	X		X	X			X
	black-capped vireo habitat restoration																				
	trash removal	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	
	fence maintenance or construction											X								X	
	Fuel mitigation									X				X							
	Prescribed fire																X				

Table 12. FY15 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)	**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**	**Trails End**	**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	X	
	karst surface monitoring		X	X	X		X					X		X						X	X	
	karst faunal surveys			X	X		X					X									X	
	cave cricket exit counts			X	X							X									X	
	Jollyville plateau salamander surveys						X						X									
	water quality	X	X				X															
	deer surveys																			X	X	
Management Activities	deer control			X						X			X				X			X		X
	feral hog control																					
	cowbird control													X				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													X		
	trash removal			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
	fence maintenance or construction										X											X
	fuel mitigation							X														

Travis County Wildfire Mitigation and Preparedness

Travis County staff actively worked on BCP lands and coordinated with neighboring communities to reduce the risk of wildfire and to improve preparedness for wildfire events. The County's Natural Resources Program is committed to 1) ensuring that safety is the highest priority for all fire management activities, the public, firefighters and staff; 2) mitigating BCP boundary lands to protect property from wildfire; and 3) meeting its obligations to protect endangered species habitat from loss due to wildfire.

Mitigation efforts on County BCP lands have focused on the wildland-urban interface (WUI), where preserve tracts share boundaries with man-made development, roads and power lines. Land management practices within the WUI are designed to reduce the probability of accidental ignition and to minimize the spread of wildfire into the forest crown. By treating these areas to reduce the chance of surface fires moving up into the tree canopy, these areas are becoming fire adapted, thereby minimizing risk to habitat and adjacent structures.

Wildfire mitigation projects that Travis County Natural Resources implemented in FY15 included:

- Three shaded fuel treatment projects on the BCP, located on the Webb tract (adjacent to the China Gardens neighborhood), the Steiner Ranch tract (adjacent to the Ray de Luna neighborhood) and the Grandview Hills South tract (along Wilson Parke Road). Lake Travis Fire & Rescue (ESD 6) and American Youthworks were contracted to perform the work, following a customized scope of work for fuel mitigation, derived from USFWS Best Management Practices for Fuel Reduction in Golden-cheeked Warbler Habitat.
- Development of a regional Community Wildfire Protection Plan for Austin/Travis County, which was adopted in November 2014.
- Initiated work on a Hazard Mitigation Grant project, funded through the Federal Emergency Management Agency (FEMA) and Texas Department of Emergency Management, to reduce wildfire risk in the BCP WUI using shaded fuel treatments. Staff attended meetings the Parke HOA, Versante, and other neighborhoods adjacent to the BCP to promote Firewise communities and to explain BCP fuel mitigation efforts.

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), dumping, vandalism, theft, poaching of native wildlife, cutting of vegetation and unauthorized use of fire.

Law enforcement on all Travis County managed properties, including County Parks and County BCP tracts, are provided by Park Police. Park Police are part of Travis County's Parks Division and are commissioned Texas Peace Officers operating as Deputy Sheriffs under the Travis County Sheriff's Office (TCSO). The Park Police 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, locked gates, facilities, trails and roads, and look for resource management issues such as non-native plant and animal encroachment and signs of oak wilt infestation.

In FY15 there were 62 incidents of illegal activities documented on the Travis County managed preserve tracts. Several of these incidents involved multiple violations. Most of the incidents were trespass only, however six involved vandalism (cutting locks and fences, taking or damaging signs, trashing an area), eight involved illegal dumping, one involved firearms (target practice), one involved unauthorized fire (making a campfire), two involved theft (game camera and game feeder), and two cases involved sediment runoff onto the BCP from adjacent developments.

Most of the cases of trespass were documented by surveillance cameras which were operated on various BCP tracts. The Volente tract continues to have recurring trespass problems; however vehicular trespass was down significantly this year as entry points were blocked. Recently acquired tracts, including the Trails End (Plains Capital) tract and the Kotrla Unit, also had many trespassing issues. These issues will hopefully be resolved in the future as boundary fences and signage are installed. Several written and verbal criminal trespass warnings were issued this year.

Four incidents of illegal tree clearing occurred on the preserve by adjacent landowners. Three of the cases were at Steiner Ranch and one occurred on the Gray Mountain tract. Natural Resources staff worked with the neighbors who cleared the trees to resolve these cases. Offenders were either fined and/or they agreed to follow an approved restoration plan to plant and care for trees in the cleared area for a one year period. The Steiner Ranch Community Association helped County staff resolve the tree clearing issues at Steiner Ranch and helped develop and distribute a brochure for residents which describes the BCP and explains the Steiner Ranch conservation easement rules.

Significant sediment runoff from adjacent developments occurred on two Travis County BCP tracts (Wild Basin and Nootsie) during the Memorial Day flooding, as well as during subsequent rainfall events. Natural Resources Staff worked with the developers, St. Edwards University staff, and City of Austin and Travis County storm water inspectors to correct the problems and mitigate for the damage. In both instances the developers had to improve the storm water controls on their property. Both cases are still active and being monitored.

One small wildfire was reported on the Grandview Hills North tract on March 29th, 2015. Fortunately, neighbors reported the fire quickly and it was contained before causing much damage. Less than one acre area was burned. The cause of the fire was undetermined but it appeared to have spread onto the preserve from the adjacent apartment complex.

On November 4th, Park Police and Natural Resources staff responded to a suicide attempt call on the Lime Creek Unit. Park Police found the subject in a semi-comatose state on the LCRA Wheless tract and the subject was evacuated by helicopter for medical treatment.

Travis County BCP Volunteer and Outreach Programs

Thirty-three volunteers donated their time and energy towards helping Travis County staff manage the BCP. These volunteers contributed 1,029.5 hours of labor on projects such as conducting wildlife surveys, controlling pest species, patrolling BCP boundaries, assisting with outreach, and helping with maintenance activities (Table 13). The Volunteer Program provides citizens an opportunity to enjoy the preserve while also contributing to its management.

Table 13. Volunteer Hours Contributed to Travis County's BCP in FY15

Type of Activity	Number of Hours
Bird Monitoring	55.5
Jollyville Plateau Salamander Monitoring	8.0
Karst Biological Surveys/Cricket Counts	19.25
Wildlife Management Activities (fire ant control, cowbird and hog trapping, deer surveys)	70.75
Non-native Plant Removal and Mapping	95.0
Native Plant Activities (habitat restoration, propagation, rescue)	268.0
Water Quality Monitoring	23.0
Data Management & Administrative Activities	160.25
Public Education and Outreach	21.0
Patrol	51.5
Maintenance (clean-ups, fence removal, trimming roads and trails)	257.25
Total	**1,029.5**





Ecology Action volunteers removed trash and recycled approximately 5 tons of metal from the Lake Travis Bluffs tract in February 2015.

Travis County presented information about the BCP at hikes and tours, community meetings, public events, and training workshops. Approximately 1,053 individuals were reached through these efforts (Table 14). In addition, public access is available year round at Hamilton Pool Preserve and Wild Basin Preserve, where thousands of people enjoy hiking the trails each year.

Table 14. Travis County BCP Education and Outreach Summary for FY15.

Type of Activity	Total Events BCP	Total BCP Participants
Special Events	3	565
Youth Programs/Hikes	5	187
University Programs/Hikes	14	171
HOA/Neighbor Meetings	3	62
Other Hikes/Tours	5	68
Total	**30**	**1053**

Some of the outreach highlights in FY15 include:

- Travis County staff participated in and helped organize a number of special events this year including the 2014 BCCP Infrastructure Conference, the Travis County Earth Day Celebration, and the Balcones Canyonlands Master Naturalists graduation.
- Travis County staff presented programs at Walnut Creek Elementary School and McNeil High School. At McNeil High School, students also participated in two clean-up events at a cave on their campus.
- The Concordia tract and Wild Basin Preserve serve as living laboratories for Concordia University and St. Edwards University, respectively. In FY15, Concordia University staff led guided hikes onto the Concordia tract giving 171 students an opportunity to learn about the preserve. Concordia students in chemistry classes also accessed the preserve to collect water samples. St. Edwards University activities for students and the general public are reported in the Wild Basin Report submitted by St. Edwards University (Appendix M).

LOWER COLORADO RIVER AUTHORITY

Annual Status Report for the Balcones Canyonlands Conservation Plan
October 1st 2014-September 30th 2015.

Mitigation Credits Used

The Lower Colorado River Authority debited 2.4 acres from its mitigation bank balance between October 2014 and September 2015. LCRA has 2447.0 mitigation credits remaining.

Management Highlights

The Lower Colorado River Authority (LCRA) manages 2,707 acres as a portion of the preserve system. Management activities for the three LCRA preserves continued to focus on natural resource research and management, access management, and stewardship promotion.

Westcave

Westcave Outdoor Discovery Center staff hosted 14,853 students, teachers, and visitors from October 1, 2014 to September 30, 2015.

- Preserve staff conducted routine property monitoring and maintenance including fence repair and signage, and invasive plant management.
- LCRA Environmental staff did not conduct presence/absence surveys on the tract this year.

McGregor

- Neither deer survey nor deer harvest was conducted at McGregor during the 2014-2015 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. Permit renewal training was not held during this reporting period; however, 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.

Wheless

- LCRA contracted with Blanton and Associates to conduct territory level GCWA surveys on the 100-acre Prime Plot. Blanton staff logged 131 observations of adult male GCWA and 8 observations of adult female GCWA. No banded birds were observed during the surveys. Territory density in the Prime Plot was estimated at 8.0 GCWA per 100 acres. See Appendix Q7 for the complete report.
- LCRA contracted with Plateau Land and Wildlife Management to conduct deer spotlight surveys on the Wheless Preserve during this reporting period. As a result of dense vegetation and low visibility, deer sightings were almost completely lacking with a total of 3 doe observations over the approximately 73.379 acre survey area. Plateau recommends implementation of remote camera surveys to augment spotlight surveys in the future. See Appendix Q12 for the complete report. No deer or feral pigs were removed from the preserve this year.
- LCRA staff did not monitor invasive plants during this reporting period. Invasive plants will be documented as they are identified in upcoming reporting periods.
- 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.

CITY OF SUNSET VALLEY

The City of Sunset Valley entered a BCCP Managing Partner Agreement on 7 February 2014 and designated 21.585 acres, known as the Gaines Greenbelt, as BCP. A report of the monitoring and management activities conducted on the Gaines Greenbelt for FY15 is included as Appendix N.

THE NATURE CONSERVANCY OF TEXAS
Annual Report for Barton Creek Habitat Preserve

Science / Stewardship

Annual surveys (point count) were completed for the black-capped vireo (BCV) and golden-cheeked warblers (GCWA). While GCWA were present, no BCV were detected on the property during the 2015 season. Brown-headed cowbirds were 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.

Research projects included “Applying Remote Cameras to the Assessment of Deer Populations” (The University of Texas) and “KR Bluestem Effects on Grasslands” (The Nature Conservancy / Global Impact Invader Network – GIIN). These efforts are ongoing and are not available as of yet.

Water quality in Barton Creek is monitored by Austin Youth River Watch, the results have not found any anomalies.

No prescribed fires were completed on the preserve over the last year due to burn bans. Four burn units totaling approximately 354 acres are ready to be completed during the upcoming winter season.

Education/Outreach/Volunteers

The preserve hosted approximately 1285 visitors, 202 volunteers totaling 552 hours of work, and 493 used the property for educational purposes. Groups included the Boy Scouts of America, Texas Parks and Wildlife, Balcones Canyonlands Preserve visitors, Austin Youth River Watch, Earth Native Wilderness School, Rose Hill Christian School, Austin High School, Westlake Hills Presbyterian Men’s Group, Capital Area Master Naturalists, Balcones Master Naturalists, Audubon Society, The National Plant Society of Texas, the University of Texas, and the University of Missouri, Lincoln University.

Volunteer projects included removing old fencing, invasive species removal (Johnson grass – *Sorhum halepense*, Malta star-thistle – *Centaurea melitensis*), trash pickup, trail maintenance, fireline preparation, juniper removal, and bird surveys.

Expense Summary

Operations and maintenance cost spent on BCP for FY 2015 was $10,000.

TRAVIS AUDUBON SOCIETY

Travis Audubon Society owns and manages 715 acres at the Baker Sanctuary which are included as part of the BCP. In April 2015, Travis County purchased a conservation easement for Baker Sanctuary to ensure that the function and purpose of the Sanctuary will be secured in perpetuity. A report of the monitoring and management activities conducted on the Bakers Sanctuary for FY15 is included as Appendix O.

LITERATURE CITED

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