BALCONES CANYONLANDS CONSERVATION PLAN

Annual Report
FY 2002

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 (the Permit) referred to as the Balcones Canyonlands Conservation Plan (BCCP) that allows incidental "take" of eight locally occurring endangered species under Section 10(a)1(b) of the Endangered Species Act (U. S. Department of the Interior, Fish and Wildlife Service, 1996a). The thirty-year permit covers western Travis County outside of proposed Preserve boundaries identified in the Habitat Conservation Plan and Final Environmental Impact Statement (HCP/FEIS) (U. S. Department of the Interior, Fish and Wildlife Service, 1996b). The permit also covers incidental take of 27 species of concern should any become listed as threatened or endangered during the life of the permit.

Table 1. Federally listed species covered by the BCCP.

Common name	**Scientific name**	**Status**
Black-capped vireo	*Vireo atricapillus*	Endangered
Golden-cheeked warbler	*Dendroica chrysoparia*	Endangered
Tooth Cave pseudoscorpion	*Tartarocreagris texana*	Endangered
Tooth Cave spider	*Neoleptoneta myopica*	Endangered
Bee Creek harvestman	*Texella reddelli*	Endangered
Bone Cave harvestman	*Texella reyesi*	Endangered
Tooth Cave ground beetle	*Rhadine persephone*	Endangered
Kretschmarr Cave mold beetle	*Texamaurops reddelli*	Endangered
Canyon mock-orange	*Philadelphus ernestii*	Species of Concern
Texabama croton	*Croton alabamensis*	Species of Concern
Flatworm	*Sphalloplana mohri*	Species of Concern
Ostracod	*Candona* sp. nr. *stagnalis*	Species of Concern
Isopod	*Caecidotea reddelli*	Species of Concern
Isopod	Trichoniscinae N. S.	Species of Concern
Isopod	*Miktoniscus* N. S.	Species of Concern
Spider	*Cicurina wartoni*	Species of Concern
Spider	*Cicurina ellioti*	Species of Concern
Spider	*Cicurina bandida*	Species of Concern

Spider	*Cicurina reddelli*	Species of Concern
Spider	*Cicurina reyesi*	Species of Concern
Spider	*Cicurina cueva*	Species of Concern
Spider	*Cicurina travisae*	Species of Concern
Spider	*Neoleptoneta cocinna*	Species of Concern
Spider	*Neoleptoneta devia*	Species of Concern
Spider	*Eidmannella reclusa*	Species of Concern
Pseudoscorpion	*Aphrastochthonius* N. S.	Species of Concern
Pseudoscorpion	*Tartarocreagris reddelli*	Species of Concern
Pseudoscorpion	*Tartarocreagris intermedia*	Species of Concern
Pseudoscorpion	*Tartarocreagris* N. S. 3	Species of Concern
Harvestman	*Texella spinoperca*	Species of Concern
New Comanche Trail Cave Harvestman	*Texella comanche*	Species of Concern
Millipede	*Speodesmus* N. S.	Species of Concern
Ground beetle	*Rhadine s. subterranea*	Species of Concern
Ground beetle	*Rhadine s.mitchelli*	Species of Concern
Ground beetle	*Rhadine austinica*	Species of Concern

The Permit Requirements

The City of Austin and Travis County (the Permit Holders) are required by the terms of the Permit to assemble and manage 30,428 acres of suitable habitat for the golden-cheeked warbler and the black-capped vireo, and to protect and manage populations of canyon mock-orange and Texabama croton. The Permit Holders are also to acquire and manage or implement management agreements on 35 karst features supporting populations of endangered invertebrates and 27 features known to harbor 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/FEIS (U. S. Department of the Interior, Fish and Wildlife Service, 1996).

Agencies or organizations entering into formal agreements with the Permit Holders to manage designated preserve lands in accordance with the BCCP are considered Managing Partners. 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 its capital improvement and infrastructure development projects through the mitigation credit system established by the BCCP.

Though the Nature Conservancy of Texas (TNCTX) and the Travis Audubon Society (TAS) also manage lands for public and environmental benefit within the Preserve, these organizations are not considered Managing Partners as no formal agreements with the Permit Holders have been finalized.

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

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

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

Development Activity within the Permit Area

Development throughout the City of Austin and Travis County continued at a rapid pace through the last year. The City of Austin development activity report for FY2002 detailing a compilation of Development Permits issued within the city limits of the Permit area is attached as Appendix A.

A summary of development permit applications received by the Travis County Permitting office is compiled and forwarded to the USFWS Ecological Services office on a quarterly basis. A compilation of Travis County Development Permits issued within the Permit area in FY2002 is attached as Appendix B.

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 (PCs) for cooperating landowners within the Permit area. Over the past year, 10 PCs were issued (Table 2): one for commercial use, one for agricultural use, four for infrastructure construction, and four for subdivisions. Descriptions of participation categories are defined in the Interlocal Cooperation Agreement between Travis County and the City of Austin Implementing the Balcones Canyonlands Conservation Plan Shared Vision (Interlocal and Shared Vision) (City of Austin and Travis County, 1995).

Table 2. FY2002 Participation Certificate summary.

BCCP Application #	Date Issued	Name	Category	Amount Paid
# 0245-B	4/04/02	Steiner Ranch	Subdivision	$276,400.00
# 0247	7/12/02	239 Rio Vista, Inc.	Subdivision	$134,550.00
# 0278	11/15/01	KVUE TV	Infrastructure	$83,700.00
# 0329	10/10/01	Redbird Investors	Subdivision	$5,400.00
# 0334	10/10/01	Maxagrid International	Infrastructure	$1,200.00
# 0336	1/28/02	Ball	Agriculture	$4,200.00
# 0340	10/10/01	CFX Engineering	Infrastructure	4300.00
# 0348	2/13/02	Graham	Subdivision	$900.00
# 0349	2/13/02	LCRA/Twin Creeks	Infrastructure	$3,000.00
# 0356	8/29/02	LeFevre	Commercial	$6,900.00

As required by the terms of the regional Permit, copies of each PC and Habitat Determination map are provided to USFWS Ecological Services office on a quarterly basis.

In addition to PC activity, one USFWS directed mitigation payment in the amount of $1,500.00 was received in FY2002. This mitigation payment was received as the result of a landowner requested alternative habitat determination as permitted through the BCCP or in accordance with the terms of an individual 10(a) permit.

Land Acquisition Funds Collected

A total of $516,660 was collected through the sale of PCs, and $1,500 was received as the result of USFWS directed payments in FY02. These land acquisition funds are disbursed between the Permit Holders on a quarterly basis. Travis County's Tax Increment Financing Plan (TIF), a funding mechanism outlined in the Interlocal and Shared Vision (City of Austin and Travis County, 1995) and directed by the Travis County Commissioners Court to support Preserve land purchases, generated $1,200,000.00 in FY2002.

Funds Expended for Land Acquisition

Since the inception of the BCCP, the Permit Holders have successfully competed for USFWS Habitat Conservation Plan grants each year. To date, six Section 6 land acquisition awards totaling $43,706,667 have been completed or are in progress (see Table 3).

Table 3. USFWS HCP Land Acquisition Grant awards received by the Permit Holders.

Year	Federal Grant Funds	Minimum Local Match (25%)	Total Grant	Local Recipient
1997	$1,000,000	$333,333	$1,333,333	City of Austin
1998	$2,000,000	$666,666	$2,666,666	Travis County
1999	$1,500,000	$500,000	$2,000,000	Travis county
2000	$4,140,000	$1,380,000	$5,520,000	Travis County
2001	$14,140,000	$4,713,333	$18,853,333	City of Austin, Travis County
2002	$10,000,000	$3,333,333	$13,333,333	Travis County
Totals	**$32,780,000**	**$10,926,667**	**$43,706,667**	

The City of Austin continued land acquisitions for the Balcones Canyonlands Preserve (BCP). As a partial result of a land exchange negotiation initiated in FY2001, a 95-acre tract of land, the Kruger tract, in the Bull Creek Macrosite was purchased by the City of Austin. The City of Austin expended $2,500,000 on the Kruger tract which is consider a key biological component of Lower Bull Creek Macrosite as well as a tract that provides security and buffer to the rest of the Macrosite. Approximately $300,000 that was placed in escrow as part of the FY2001 land exchange settlement was used as part of minimum local match to a Section 6 land acquisition award.

In 2002, Travis County expended $9,642,367 on land acquisition, including the addition of the 170.163 acre Toops tract and the 490.96 acre Vista Point tract. A combination of fee-simple deeds and conservation easements totaling 287 acres associated with the Tomen-Parke Grand View Hills development were transferred to the County with no expenditure of grant funds. An additional $30,819 for survey and appraisal services was spent while finalizing the purchase of the 35.146 acre Tomen-Parke Section 14, Lot 2 tract which was acquired in early FY2003.

Funds Expended for Operations and Maintenance

The City of Austin spent a total of $582,583 for FY 01-02 to fund preserve management expenditures by the Parks and Recreation Department's Natural Resources Division and the Water and Wastewater Utility's Wildland Conservation Division, Balcones Canyonlands Preserve Program (The BCP Program was transferred from PARD to W&WW on April 1, 2002). The approved budget for FY 01-02 was $701,724 (see Table 4). This figure understates the City's total expenditures on this program since it does not include (1) work by other staff in PARD's Natural Resources Division and W&WW"s Wildland Conservation Division on program administration and support; (2) operation and maintenance expenditures by PARD's Park Operations on BCP-designated parkland; or (3) land management expenditures by the Water and Wastewater Utility on the two BCP-designated tracts that it owns and manages. Those expenditures cannot be readily determined from their program budgets. The $119,141 difference between the total spent to fund preserve management and the approved budget of $701,724 is due to the reassignment of two Park Police officers from the BCP Program to PARD. The BCP Program retained the two full-time staff positions but as of the end of FY 02 the positions had not been filled.

The Travis County Parks and Natural Resources budget for the BCP Program in FY2002 was $431,498. This includes Travis County General Fund expenditures as well as developer funds negotiated to support ongoing operations and maintenance of County managed Conservation Easements. Note that this figure does not include expenditures by the Committee for Wild Basin Wilderness, Inc., which holds a contract to conduct educational programming and management of the County owned Wild Basin Wilderness Preserve, or funds expended by the Travis County Parks Department for non-habitat related operations and maintenance of Hamilton Pool Preserve.

Table 4. Annual FY2001 and FY2002 BCP budgets for Permit Holders, the Managing Partner, and cooperating entities with summary of total budgets since plan inception.

BCP Partner	2001	2002	Total Budget: 1996 to Present
City of Austin	$614,425	$701,724	$3,055,229
Travis County	$540,582	$431,498	$2,071,080
LCRA	$172,557	$165,000	$677,907
TNCTX	$118,000	$120,000	$694,000
TAS	$6,900	$9,083	$52,483
TOTALS	**$1,452,464**	**$1,427,305**	**$6,550,699**

Updated Map of Lands Dedicated to the Balcones Canyonlands Preserve

With the addition in FY2002 of 757 acres to the Preserve, 26,326 of the 30,428 acres required by the Permit (87%) have been assembled by the Permit Holders and cooperating entities. A map illustrating the current status of the Balcones Canyonlands Preserve is enclosed as Appendix C. A summary of BCP lands by managing entity is enclosed as Appendix D.

Mitigation Credit Balance

The City of Austin's Balcones Canyonlands Preserve staff administers the Capital Improvement and Infrastructure Development Project mitigation credit system on behalf of the BCCP Coordinating Committee. The mitigation needs of the Permit Holders and the Managing Partner for these projects are provided under the terms of the regional Permit. Mitigation credits are issued at a rate equal to the number of acres within the Preserve system managed under the terms and conditions of the Permit and the HCP/FEIS (U. S. Department of the Interior, Fish and Wildlife Service, 1996b). Capital improvement and infrastructure development mitigation needs are subtracted from this accumulated "bank" of credits at a rate of one acre of credit per acre of habitat impact; regardless of habitat zone (see Table 5).

Table 5. Projects mitigated through the use of mitigation credits during FY02 by participating agency.

City of Austin	
Starting City of Austin Balance	11,544.45 acres
New preserve additions (credits)	95.0 acres
W&WW Fenton Drive Transmission Main	(0.8) acres
W&WW WCID #10 Easement Extion	(0.1) acres
Escarpment Boulevard Extension CIP 8400-607-8922	(4.2) acres
Remaining Mitigation Credits	***11,634.35 acres***
Travis County	
Starting Travis County Balance	1,528.0 acres
New preserve additions (credits)	947.0 acres
Remaining Mitigation Credits	***2,475.0 acres***
Lower Colorado River Authority (LCRA)	
Starting LCRA Balance	2,529.2 acres
LCRA mitigation credit amendment for Precinct 2 Redevelopment	1.0 acre
RM 620 Wastewater Lines	(3.9) acres
Patterson Rd & Crystal Creek Dr Water Distribution Lines	(0.5) acres
Cypress Creek Fencing, Phase I & II	(0.1) acres
Highway 71 Wastewater Line	(0.9) acres
PEC Lime Creek Rd, FM 1431 to City of Cedar Park WTP	(1.7) acres
Remaining Mitigation Credits	***2,523.1 acres***

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

The City of Austin

On April 1, 2002 the Balcones Canyonlands Preserve (BCP) Program, program staff positions and program assets were transferred from the City of Austin Parks and Recreation Department to the Water and Wastewater Utility by the City Council following a Council directed study and subsequent recommendation by City Management. The City Manager's evaluation team recommended that the BCP be transferred to the Utility because the Utility's Water Quality Protection Land (WQPL) Program and the BCP Program have land management plans that include similar elements and functions and staff members of both programs utilize similar skill sets in the fields of range management, biology, and property maintenance. The City Manger's

evaluation team further recommended that the BCP Program be managed with the WQPL Program under a new land management division, the Wildland Conservation Division. All BCP capital assets including land, vehicles, equipment and tools, computers, office fixtures and all 10 BCP positions were transferred to the Utility. The Utility assumed responsibility for management, habitat restoration, removal of threats to the habitat and inventorying existing species within the city's 13,035 acres portion of the BCP.

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

Table 6. Management Status of City of Austin BCP Properties

Tract	Primary Management Responsibility	Acreage
Upper Bull Creek Unit (Franklin, Hanks, Lanier, COA Canyon Creek)	W&WW/BCP BCP/PARD(Franklin)	608
Middle Bull Creek Unit (Ivanhoe, Beard Trust)	W&WW/ BCP	996
Lower Bull Creek Unit (St. Edward's Park, Jester, Forest Ridge, 3M, Hilltop, Gibson/Nott, Hiller, Kruger)	W&WW/BCP	1140
Lime Creek (inc. 100 acres of Austin-Simon, Ltd.)	W&WW/BCP	594
Park West, Coldwater I & II, Long Canyon	W&WW/BCP	1345
Cortaña	W&WW/BCP	1752
Double J&T	W&WW/BCP	1729
Reicher Ranch	W&WW/BCP/PARD	820
Bohls Ranch	W&WW/BCP	450
Sansom	W&WW/BCP	13
Senna Hills	W&WW/BCP	35
Vireo Research Area	W&WW/BCP/PARD	214
Ullrich Water Treatment Plant	W&WW	18
Water Treatment Plant #4	W&WW	138
	W&WW/BCP Subtotal	**9,852**
Bull Creek District Park, Barton Creek Greenbelt	PARD Operations*	25
Spicewood Springs Preserve	PARD Operations	8

Barrow Preserve	PARD Operations	8
Emma Long Metro Park	PARD Operations	950
Commons Ford Park	PARD Operations	115
Barton Creek Wilderness	PARD Operations	999
Barton Creek Greenbelt	PARD Operations	813
Friesenhahn	PARD Operations	62
Mt. Bonnell	PARD Operations	3
	Other City of Austin Subtotal	**3,183**
	TOTAL ACREAGE	**13,035**

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

UPPER BULL CREEK UNIT

Canyon Creek

Illegal trespass from Canyon Creek development remains an ongoing problem. The primary trespass routes appear to come from the adjacent Canyon Creek conservation easements. Management activities for this tract during FY 01-02 included:

- Routine patrol of the area for evidence of trespass and preserve damage.
- Repair road by removing fallen trees, which were damaged by storms.
- Repair of damaged perimeter fence and gates due to unauthorized trespass.
- Contacted adjacent landowner regarding fence damage due to a fallen tree. The landowner repaired the fence and removed the tree.
- Brown-headed cowbird trapping. See City of Austin Brown-headed Cowbird Report for more detail and results, Appendix F.
- Staff conducted 3 white-tailed deer census counts (City of Austin White-tailed Deer Survey Report, Appendix G).
- Golden-cheeked warbler surveys (enumeration).
- Feral hog trapping (City of Austin Feral Hog Control Report, Appendix K)

Hanks Tract and Gardens at Bull Creek Tract

BCP staff has spent considerable time overseeing mitigation measures on this tract and adjacent City infrastructure land to the north. A portion of the Hanks tract was involved in the construction of a regional flood retention facility on the adjoining Gardens of Bull Creek property. Management activities for this tract included:

- Routine patrol of the area for evidence of trespass and preserve damage.

- Repair chain-link fencing that was vandalized.
- Required adjacent landowners to repair perimeter fence that they damaged.
- Staff continued to monitor the health of 229 trees (planted Nov. 2000). Staff continued photo monitoring to help monitor the success of the restoration project.
- Remove trash from Gardens at Bull Creek.
- Repair access road on Hanks by removing fallen trees.
- Repair vandalized perimeter fence and deer exclosure.
- Installed new perimeter signs and repaired vandalized signs.
- Initiate the process to have the dilapidated Hanks cabin removed, sought bids and had the cabin tested for asbestos (no asbestos found).
- Seeded white-tailed deer exclosure to aid in golden-cheeked warbler habitat restoration.
- Surveyed erosion problems from adjacent development. This erosion and sedimentation is adversely affecting Bull Creek water quality as well as Jollyville salamander habitat. Staff reported all erosions problems associated with adjacent development to the City of Austin's environmental inspectors. Remediation enacted as required.
- Feral hog trapping (City of Austin Feral Hog Control Report, Appendix K).
- Biological monitoring continued during FY 01-02 at Hanks. Quarterly monitoring of the presence of the aquatic Jollyville Plateau Salamander was conducted on both tributaries. Staff conducted surveys following protocol established in the City of Austin's Watershed Protection Department (WSPD) report "Jollyville Plateau Water Quality and Salamander Assessment". At set stations, staff measured flow, water and air temperature and counted all salamanders observed. Salamanders counted were further broken down into 3 categories based on observed size. WSPD staff periodically take water and benthic samples at these sites to determine current status on water quality. Staff will continue to conduct quarterly surveys at this site until there is a minimum of 5 years of data. Five years of data should allow for an accurate assessment of the populations dynamics at this site. Monitoring at this site will continue beyond the 5 years to determine if the recently constructed dam has any adverse affect on the salamanders and their habitat.
- Golden-cheeked warbler observations and enumeration were conducted and territories were mapped. (City of Austin 2002 Golden-cheeked Warbler Report Appendix E).

Lanier tract

Important management activities for this tract include:

- Routine patrol of the area for evidence of trespass and preserve damage.

- Within the last two years there have been 3 large apartment complexes built nearby without adequate barriers to stop illegal trespass onto adjacent preserve land. Most of the illegal trespass on Lanier occurs through WTP# 4 and originates from Schlumberger preserve land. Currently there is only an old 5-strand barbed wire fence separating Lanier and WTP # 4.
- Feral hog trapping (City of Austin Feral Hog Control Report, Appendix K).
- White-tailed deer surveys are conducted on Lanier, as part of the five mile Upper Bull Creek census route (City of Austin White-tailed deer Survey Report, Appendix G).
- Removed non-native invasive vegetation.
- Repaired road, both erosion and vegetation removal of downed trees. Initiated the process to have the dilapidated Lanier house removed, sought bids and had the cabin tested for asbestos (asbestos was found in the roof tiles).
- Requested that Pedernales Electric Cooperative remove 3 old electric transformers. Removal completed.

Franklin tract

Key management activities for this tract over the past year were:

- Feral hog trapping (City of Austin Feral Hog Control Report, Appendix K).
- Sedimentation and erosion work along Bull Creek.
- Routinely patrolled main roads and perimeter fencing to look for signs of trespassing, vandalism or illicit dumping.
- White-tailed deer surveys are conducted on Franklin tract, as part of the five mile Upper Bull Creek census route (City of Austin White-tailed deer Survey Report, Appendix G).
- Repaired access road damaged by flooding and erosion problems.
- Initiated Cistern Spring/Jollyville salamander habitat restoration with the help of a grant from the Partners for Fish and Wildlife Program (City of Austin Cistern Springs Restoration Report, Appendix O).
- Removed trash dumps from this site.
- Removed non-native invasive vegetation.
- Requested that Pedernales Electric Cooperative removed an old electric transformer from the site. Removal completed.
- Quarterly monitoring for the presence of the aquatic Jollyville Plateau Salamander. Note: Staff conducted surveys following protocol established in the City of Austin's Watershed Protection Department (WPD) report "Jollyville Plateau Water Quality and Salamander Assessment". At set stations, staff measured flow, water and air

temperature and counted all salamanders observed. Salamanders counted were further broken down into 3 categories based on observed size. WPD staff periodically takes water and benthic samples at this site to determine current status on water quality. Staff will continue to conduct quarterly surveys at this site until there is a minimum of 5 years of data. Five years of data should allow for an accurate assessment of the populations dynamics at this site.

- With the help of volunteers from 10 high schools with Peers for Assisted Leadership (PAL) programs, BCP staff planted 161 young saplings and protected the plants with wire cages. PAL is sponsored by the Pan America organization.
- BCP staff set up automatic irrigation system for caged plants on the tract using AIL E-Corps assistance.

LOWER BULL CREEK UNIT

Forest Ridge

The Forest Ridge area is subject to continuing heavy public use by hikers and runners. Mountain biking and dog walking appear to be substantially reduced, though these activities continue to occur illegally. The proportion of hikers with entry permits continues to increase and staff finds increasing awareness and sympathy for the nesting season entry permit requirement. Management activities included:

- Repaired fence, dodge way, and sign vandalism.
- Conducted educational permit classes on this site (City of Austin Public Outreach Efforts Report, Appendix L).
- Erosion repair work and installation of new water bars with Boy Scout assistance.
- Routine patrol of this site
- GPS mapping was continued for the BCP resource inventory.
- BCP staff conducted golden-cheeked warbler surveys at the 100-acre prime study plot on Forest Ridge for the fifth consecutive year (City of Austin 2002 Golden-cheeked Warbler and Black-capped Vireo report, Appendix E).

Jester tract

Public access has been allowed on a portion of this tract; however, dodge ways have been installed to curtail prohibited mountain bike and horse use of this area. Education programs to permit preserve hikers during the bird season continued. Other management activities on Jester have included:

- Sedimentation and erosion control.
- Trail work and repair.

- Closed illegal trails.
- Installed informational signs regarding access and endangered species issues.
- Repaired fence, dodge way and sign vandalism.
- Routine patrol of site.
- GPS mapping was continued for the BCP resource inventory.

Hilltop

This property continues to experience some trespass from horseback riders and mountain bikers. However, with the installation of a fence along a portion of the northern boundary, the trespass should be minimal in the future. Management activities on Hilltop included:

- Routine patrol of site.
- Installation of 1,643 feet of 6 foot chain-link fencing, with additional 1 foot of 3-strand barb wire, along portion of northern boundary of Hilltop and continuing along portion of eastern boundary of Kruger tract.

Hiller

This tract lies adjacent to Forest Ridge, Hilltop, and Gibson/Nott tracts.

- Periodic patrolling of site

Gibson /Nott Tract

- Periodic patrolling of site

Kruger

This newly acquired tract (95 acres) lies adjacent to both the Hilltop and 3M tracts. Mountain bikers, motorcyclists, and horseback riders had used the tract, often as a route into the 3M tract. The completion of the fencing of the external Kruger boundaries will help in the management of trespassers. Management activities included:

- Installation of 2,477 ft. of 6 ft. chain-link fencing, with additional 1 ft. of 3-strand-barb wire, along portion of northern boundary along Whitecliff Drive and continuing along a portion of the eastern boundary. The remainder of the eastern portion of the Kruger boundary was fenced as part of the Hilltop/Kruger fencing project.
- Routine patrolling of site.

3M Mitigation Tract

Horseback riders and motorcyclists have subsided on this tract due to recently installed fencing on the Kruger tract. The closure of Forest Ridge and Jester to biking was

initiated in the spring of 2001. Some illegal biking on 3M continues. Management activities included:

- Volunteers were used to cage several hundred twist-leaf yuccas.
- Brown-headed cowbird trapping (City of Austin Brown-headed Cowbird Control Report, Appendix F).
- Routine patrolling of main roads and perimeter fencing to look for signs of trespassing, vandalism or illicit dumping.
- GPS mapping was continued for the BCP resource inventory.

St. Edwards Park

This area serves as a major public access route for hikers and bikers. Hikers are allowed into adjacent Bull Creek Preserve properties, but mountain biking is prohibited. The major trail through this park continues to be heavily used by dog-walkers, hikers and mountain bikers.

- New, illegal mountain biking paths within the parkland portion were mapped.
- GPS mapping was continued for the BCP resource inventory.
- The area was routinely patrolled.

MIDDLE BULL CREEK UNIT

Ivanhoe

Management activities included the following:

- Endangered bird monitoring activities at Ivanhoe concentrated on the 100-acre study plot for golden-cheeked warblers (City of Austin 2002 Golden-cheeked Warbler and Black-capped Vireo Monitoring Program report, Appendix E).
- Brown-headed cowbird trapping (City of Austin Brown- headed Cowbird Report, Appendix F).
- Feral hog trapping (City of Austin Feral Hog Control report, Appendix K).
- Conducted routine patrols on this tract.
- Erosion repair on access road.
- Conducted a cave faunal survey at Featherman's cave (Karst Report, Appendix X).
- A SWT student conducted a Jollyville Plateau salamander survey of several of the springs located on this tract. The student with the help of BCP staff found a new location for the salamander.

Beard Family Trust

Management activities for this tract included:

- Routine patrol of area.

- Sedimentation and erosion control work.
- Repair of fences
- GPS mapping was continued for the BCP resources inventory.

CYPRESS CREEK UNIT

Lime Creek

Management activities for this tract included:

- Monitoring: Lime Creek has two caves, which harbor endangered karst species. Biannual monitoring of these caves has been conducted for karst fauna and red important fire ant infestations (Karst Report, Appendix X).
- Periodic patrolling
- Periodic fence repair
- Trash removal
- Cleared access road of fallen trees.
- Met with USFWS, Williamson County, and Cedar Park officials regarding the widening of Lime Creek Blvd, which will impact a portion of the preserve.
- Met with Pedernales Electric Cooperative regarding the clearing of vegetation for a new upgrade of an existing electric line. It was determined that the clearing would cause minimal damage to golden-cheeked warbler habitat.

NORTH LAKE AUSTIN UNIT

Emma Long Park

City management activities during FY 01-02 included:

- Working with PARD Park Manager to insure that any grant-funded improvements done within the existing motocross track and mountain biking area did not harm warbler habitat.
- Routinely patrolling main roads and perimeter fencing to look for signs of trespassing, vandalism or illicit dumping.
- Monitoring activities for golden-cheeked warblers continued for the fifth year on the Emma Long 100-acre plot. Staff also spent time enumerating warblers throughout the rest of the park (City of Austin 2002 Golden-cheeked Warbler and Black-Capped Vireo Monitoring Program, Appendix E).
- White-tailed deer surveys were conducted over a five-mile route through Emma Long Park (City of Austin White-tailed Deer Survey Report, Appendix G).

Coldwater

Management activities on Coldwater during FY 01-02 included:

- During the hot, dry summer months six live oak trees were hand watered. These trees were planted by Austin Energy to remediate vegetation removed while installing underground utilities.
- Routinely patrolled main roads and perimeter fencing to look for signs of trespassing, vandalism or dumping.
- A hardwood protection project that began in 1999 continued in 2002. This project, which was funded by a Partners for Wildlife grant, involved placing individual wire enclosures around existing hardwood seedlings to protect them from deer browse. Tree species protected included Texas oak, live oak, Texas mulberry, shin oak and escarpment black- cherry. To date nearly 300 trees have been protected.
- Monitoring activities for golden-cheeked warblers continued for the fifth year on the Coldwater tract (City of Austin 2002 Golden-cheeked Warbler and Black-Capped Vireo Monitoring Program, Appendix E).

Long Canyon

City management activities at the Long Canyon tract during FY 01-02 involve the following:

- Routine Patrols: Main roads and perimeter fencing were visited to look for signs of trespassing, vandalism or dumping.

Park West

A variety of management activities were conducted during FY 01-02 at the Park West Tract. Key work efforts included:

- Investigation of areas surrounding cave mouths for presence of red imported fire ants. Boiling water was used to treat active fire mounds (Karst Report, Appendix W).
- Routinely patrolled main roads and perimeter fencing to look for signs of trespass, vandalism or dumping.
- Cleared ice storm damage to trees from chain-link fence on the west side of the property.
- Fixed barbed wire fencing along western boundary that had been vandalized.
- Austin Energy upgraded an existing electric line. Clearing for the project was minimal. An adjacent fence was damaged during the project and repair at the completion of the project.
- Feral hogs trapping (City of Austin Feral Hog Control Report, Appendix K).

Cortaña

This tract continues to be a magnet for trespassing by mountain bikers and motorcyclists. Travis County has installed fencing on a portion of its Steiner Ranch Conservation Easement, which is contiguous with Cortaña's western boundary, near Portofino Road. This new fencing will help to curtail some of the trespassing, which occurs in the central part of Cortaña. Management Activities included:

- Staff conducted monitoring and initiated communication with two new developments on the east side of Cortaña (Cortaña Shores and a development north of Merrywing Circle) this fiscal year to ensure that home builders and realtors are aware that Cortaña is not a public park for homeowner's usage.
- Monitoring: The COA has not been conducting avian monitoring of Cortaña. However, because of a federal Section 7 permit, Sierra Development Corp. (River Place) has been conducting studies (every other year) to determine GCW and BCV territories and reproductive success on adjacent properties within 3,000 ft of the River Place boundaries. These studies include almost the entire portion of Cortaña (as well as portions of Park West). The studies have included the years 1994, 1996, 1998, and 2000 and will continue until three years after complete build out of River Place. River Place is also responsible for monitoring 100 acres of manipulated BCV habitat, a portion of which is at the northern tip of Cortaña. The monitoring includes both avian and plant monitoring studies, and has been conducted every year since 1996. All of these studies have been presented to USFWS, via SWCA, Inc, which is conducting the surveys.
- Brown-headed cowbird trapping (City of Austin Brown-headed Cowbird Control Report, Appendix F).
- Routinely patrolled main roads and perimeter fencing to look for signs of trespass, vandalism or dumping.
- Created and improved BCV habitat by clearing shin oak and Ashe juniper by hand operated equipment.
- Feral hog trapping, (City of Austin Feral Hog Control Report, Appendix K).
- Closed illegal access points with fencing and a gate.
- Met with Austin Energy regarding clearing of vegetation for a new electric line. It was approved because no golden-cheeked warbler territories were within 100 meters of the project.
- Located a new active oak wilt center on this tract.
- Austin Energy complied with BCP request to remove 2 old electric transformers.
- Prepared a plan to create more black-capped vireo habitat with a pre-scribed burn.

- At the request of City Council members, held discussions and field trips with a private individual who was interested in buying a portion of Cortaña.
- Staff discussion with project manager of Cortaña Shores to identify survey boundary lines between COA Cortaña tract and Cortaña Shores tract, and to get assurances that COA will continue to have access to lower portion along the river, as development proceeds. Discussions with environmental consultants about silt fences situated across a creek, which enters into Lake Austin.

SOUTH LAKE AUSTIN TRACTS

Double J&T

Management activities included:

- Along Murfin Road, there is the continual problem of trespassing and dumping of trash onto Double J&T., as well as cutting of fence along various portions of the road. At the Cardinal Hills neighborhood, the western-boundary fence was cut and removed, and illegal dumping has occurred. Initiated the closing off of these access points and the removal of the trash dumps.
- Public outreach with adjacent landowners.
- Perimeter fence repair work.
- Golden-cheeked warbler monitoring is conducted on a 100-acre plot (designated as a transitional plot) on this tract (City of Austin 2002 Golden-Cheeked Warblers Report, Appendix E).
- White-tailed deer surveys are conducted on Double J&T, as part of the five mile SLAM census route (City of Austin White-tailed Deer Survey Report, Appendix G).
- Routinely patrolled main roads and perimeter fencing to look for signs of trespass, vandalism and/or dumping.
- Trash was removed by hand and heavy equipment adjacent to Murfin Road.
- Two rock-pile barriers were built near the entrance to the illegal dump areas. A barbed wire barrier was placed at the north end of the illegal road.
- GPS mapping was continued for the BCP resource inventory.

Sansom Tract

Management activities included:

- Routine patrol of property.

Reicher Ranch

Management activities included:

- Closed illegal roads, which prevented illegal access into golden-cheeked warbler habitat.
- Trash/dump removal.
- White-tailed deer surveys are conducted on Reicher Ranch, as part of the five mile SLAM census route (City of Austin White-tailed Deer Survey Report, Appendix G).
- White-tailed deer population control. (City of Austin White-tailed Deer Management Program Report, Appendix I).
- Feral hog trapping. (City of Austin Feral Hog Control Report, Appendix K).

Bohls Ranch

This riverfront tract is bordered on the west by Reicher Ranch and on the east by the Lake Pointe subdivision and its 230-acre mitigation tract. Since much of the common boundary between Bohls and Lake Pointe mitigation is not fenced, the potential for frequent trespassing onto Bohls continues. Management activities included:

- Completed first year LCTA vegetation transect project with SWT grad student assistance.
- White-tailed deer surveys are conducted on Bohls Ranch, as part of the five mile SLAM census route (City of Austin White-tailed Deer Survey Report, Appendix G).
- White-tailed deer population control. (City of Austin White-tailed Deer Management Program Report, Appendix I).
- Monitoring for golden-cheeked warbler conducted on a 100-acre plot (designated as a prime plot) (City of Austin 2002 Golden-Cheeked Warbler Report, Appendix E).
- Feral hogs have been observed (City of Austin Feral Hog Control Report, Appendix K).
- Routine patrolling.
- Perimeter fence and sign repair.
- Initiated black-capped vireo habitat restoration efforts.

Commons Ford Ranch Park

- Routine patrolling
- Met with Austin Energy regarding the upgrade of an existing electric line easement. Austin Energy proposed to re-route the existing alignment out of golden-cheeked warbler habitat, thus eliminating the need to clear habitat.

Senna Hills

- Routine patrolling

BARTON CREEK TRACTS

Barton Creek Wilderness Park

FY 2001-02 management highlights for the B.C. Wilderness Park include:

- BCP staff conducted control of the imported red fire ant mounds near caves (Substation Sink, Cave Y, and Seibert Sink) using boiling water techniques. Cave entrances were checked periodically for signs of human visitation, trash, and damage.
- Repaired vandalized perimeter fence and closure signs to prevent illegal access into golden-cheeked warbler habitat.
- Golden-cheeked warbler monitoring continued at the 100-acre prime GCW study plot near Barton Creek, while GCW enumerations throughout this unit were also conducted (City of Austin Golden-cheeked Warbler Report, Appendix E).
- Existing *Streptanthus bracteatus* populations in the Wilderness Park were monitored early in the spring. A SWT grad student will conduct genetic research on these populations to assist the BCP's efforts for conservation.
- Routine patrolling.
- Met with Austin Energy regarding the need to maintain the right-of-way and clearing of vegetation on and around power lines for safety reasons. Austin Energy completed the clearing prior to March 1 and have started a new policy of maintaining access right-of-way directly under the lines. Austin Energy also repaired vandalized fences, gates and removed an old transient camp.
- Reported a new transient camp to Park Police in close proximity to Fog cave. Trash from the camp is entering the cave, thus potentially contaminating the aquifer and harming cave fauna. Park Police have been asked to remove the camp.

Barton Creek Greenbelt

- Biannual karst fauna monitoring was conducted at Airman's Cave, (Karst Report, Appendix X).
- Austin WPD staff take routine water and benthic samples from several points on the creek to help determine the health of the creek and to try to determine how the creek is being impacted by adjacent urban sprawl.

Friesenhahn Tract

- Routine patrolling

WEST AUSTIN PROPERTIES

Vireo Research Area

- BCP staff conducted a spring survey to look for black-capped vireo presence. None were found.
- Routine patrolling
- Reported to the WPD environmental inspector a contractor's illegal clearing of vegetation for a new water line. The inspector made sure that the contractor complied with their site plan and reseeded the area of disturbance.
- Austin Energy installed a new gate and repaired an existing gate leading into property. The new gates prevented illegal access into the property.
- An adjacent property owner is constructing a new game fence on a portion of the northeastern boundary. The property owner is also constructing a very large home immediately adjacent to the preserve.

Mount Bonnell Park

This small hilltop park overlooking Lake Austin continues to receive high visitation rates, especially by out-of-town visitors seeking a panoramic view of the lake and scenic Texas Hill Country. Over the past year, several clean-ups of trash (mostly beverage bottles and cans) thrown into the native vegetation by park visitors were performed by preserve staff.

- Volunteers did extensive monitoring of the rare *Streptanthus bracteatus*. The vacant land due south of the park is under construction for a new home. This tract has a substantial population of the rare *Streptanthus bracteatus.* The Ladybird Johnson Wildflower Center contacted the owner and got permission to collect seed from the property. The Wildflower Center also are advising the property owner on how to minimize damage to the remaining population.
- BCP staff walked the site with a SWT grad student showing where the plants are located. This student will be conducting DNA analysis on this plant.

Ullrich Water Treatment Plant

Managed by W&WW. BCP management activities included:

- BCP staff met on site regarding fence design and location for the protection the rare *Streptanthus bracteatus.*
- BCP staff designed a cave gate to protect Little Bee Creek Cave (Karst Report, Appendix X).

Water Treatment Plant #4

Managed by W&WW. BCP management activities included:

- White-tailed deer surveys are conducted on WTP#4, as part of the five mile Upper Bull Creek census (City of Austin White-tailed Deer Report, Appendix I).
- Illegal trespass from adjacent newly built apartments.
- Found that "Moss Gully" spring and salamanders no longer exists, the spring has disappeared.
- Feral hog trapping (City of Austin Feral Hog Control Report, Appendix K).
- BCP staff removed non-native invasive vegetation in accordance with the management plan.
- BCP staff walked the site with consultants regarding karst features on and adjacent to the property. BCP staff recommended that karst features be investigated more thoroughly.

Barrow Preserve

Management activities include:

- Routine patrol and monitoring adjacent new development (Canyon Rim).
- Reported several violations of environmental codes to the City of Austin regarding the adjacent development.
- WPD staff monitored the water for pollutants.

Spicewood Springs Preserve

Management activities include:

- Erosion and sedimentation control.
- Repair of security fence around Cotterell Cave
- Red-imported fire ant control with boiling water (Karst Report, Appendix X).
- Trail work and repair
- Trash removal
- Escorting trespassers back to the trail.
- Put out seed of locally collected native plants in areas where erosion is occurring to aid in erosion control.
- Added a new rules sign, which covered all illegal activities occurring in the preserve.
- Replaced and repaired rules signs in preserve.
- Conducted 3 faunal surveys at Cotterell Cave (Karst Report, Appendix X).
- Closed the parking lot to vehicular traffic. The Preserve was a hang out for gangs, most of which would party in the parking lot. Illegal gang activity and vandalism has dropped off considerably since the new gate was installed.

- Added new boundary markers on the western boundary. The boundary markers will help keep illegal trespass down from the new homes being constructed.
- Reported violations of environmental codes to the City of Austin's environmental inspector from the new development to the west of the preserve.

Two research-monitoring studies are underway at Spicewood Springs Park involving non-BCP investigators. They involve:

- (1) Jollyville Plateau salamander: Monthly surveys were conducted on this preserve and the land immediately downstream until January. This site is now surveyed yearly in January. This site is the type locality for the Jollyville Plateau salamander. This population crashed in 1994 and has never really recovered. Some of the remaining salamanders have notable spinal deformities. Watershed Protection Department staff takes regular water quality samples for analysis.
- Staff conducted surveys following protocol established in the City of Austin's Watershed Protection Department (WSPD) report "Jollyville Plateau Water Quality and Salamander Assessment". At set stations, staff measured flow, water and air temperature and counted all salamanders observed. Salamanders counted were further broken down into 3 categories based on observed size. WSPD staff periodically take water samples at these sites to determine current status on water quality. Staff will continue to conduct yearly surveys at this site until there is a minimum of 7 years of data. As of 1/02 this site is surveyed yearly. Up until then this site was surveyed monthly since 1994. It is uncertain how much longer City of Austin BCP staff will continue to survey this site. However, staff will continue to try to determine why salamanders are disappearing from this site and why some are deformed.
- Salamanders on this site carry the chytrid fungus, which is lethal to frogs. All equipment and clothing must be either dedicated to this site and none other or sterilized with a 10% solution of bleach before accessing any other sites.
- (2) Native tree water uptake rates: BCP staff conducted 3 faunal surveys at Cotterell cave, and inspects the entrance at least monthly (Karst Report, Appendix W). Cotterell Cave is the home of the endangered bone cave harvestman. Dr. Rob Jackson at Duke University and Dr. Will Pockman with the University of New Mexico are currently conducting research on the uptake of water from certain species of trees. They have set up scientific probes on some of the roots inside the cave. This monitoring does not require access into the cave and is only done under BCP staff supervision.

PRESERVE-WIDE ACTIVITIES

- Brown-headed Cowbird Control Program: See attached report, Appendix F.
- Feral Hog Control Efforts: See attached report, Appendix K.
- White-tailed Deer Survey Program: See attached report, Appendix G.
- White-tailed Deer Management Program: See attached report, Appendix I.
- Public Outreach Efforts: See attached report, Appendix L.
- GCW/BCV Monitoring Surveys: See attached report, Appendix E.
- Greenhouse and Revegetation Projects: Ongoing utilization of Reicher Ranch greenhouse to propagate native trees and shrubs from seeds collected on BCP tracts. For fiscal year 2001-02, transplanted approximately 660 of the following plants on the 3M, Gardens of Bull Creek, Franklin, and Reicher Ranch tracts: Arizona walnut, Carolina buckthorn, cedar elm, Eve's necklace, Mexican buckeye, Mexican plum, red buckeye, Texas mulberry, Texas mountain laurel, and Turk's cap. Some of the other native species propagated in the greenhouse, but not yet planted in the field: agarito, American beautyberry, shin oak, soapberry, Texas oak, Texas persimmon, Texas redbud, and twisted-leaf yucca. Since its inception in early 2000 through September, 2002, this project has planted approximately 810 hardwood saplings on BCP tracts. Through funding from a U.S. Fish & Wildlife Partners for Wildlife grant, a 525-gallon water tank and trailer were purchased in June 2001. The water tank enables more efficient field watering of young plants during hot, dry summer months.
- Karst Protection: See report, attached as Appendix X.
- Cistern Spring and Jollyville Plateau salamander habitat restoration. (See report Appendix O)
- Goat cave bat habitat and restoration effort.
- Initiated GIS/GPS mapping of existing BCP resources. The Arc view-created map will have roads, structures, wells, fences, gates, etc. and will be used for future land management.

Travis County

Hamilton Pool Preserve

Public uses permitted prior to Hamilton Pool Preserve's dedication as a portion of the BCP continued through FY2002. The 232-acre site contains approximately 1.75 miles of maintained nature trails, and provides access to a popular swimming area located in a natural grotto. User fees are assessed, and public access to the Preserve is limited to day use only. Pets, fires, cooking, fishing, and collecting are all prohibited within the Preserve.

- Travis County Parks and Natural Resources staff actively engage the public in education and outreach efforts related to endangered species and the BCP.
- A 100-acre study plot for collection of long-term distribution and abundance data for the golden-cheeked warbler was established by the BCP Land Management Plan (BCP LMP). Intensive data collection and monitoring on the study plot continued, and results are summarized in Travis County's *Monitoring of the Golden-cheeked Warbler, 2002 Field Season* report, attached as Appendix U.
- The results of the County's brown-headed cowbird trapping at Hamilton Pool Preserve are found in Appendix W.
- The Hamilton Pool Preserve population of canyon mock-orange, a species of concern covered under the Permit, continues to be protected and monitored. A discussion of management activities related to this species may be found in *Monitoring and Management of Plant Species of Concern on the Balcones Canyonlands Preserve*, attached as Appendix S.

Lake Perspectives Tract

The 124-acre Lake Perspectives tract is not open to the public.

Habitat management activities in FY2002 included:

- boundary delineation and construction of 10' fencing to address illegal access concerns were completed
- regular site visits by BCP Law Enforcement staff
- non-native invasive plant species assessment and control activities (report attached as Appendix S)
- endangered species surveys (see Appendix U)
- Travis County staff trapped brown-headed cowbirds on the tract, and initial investigations to quantify white-tailed deer populations were initiated. A summary of these activities is attached as Appendix W.

Jollyville Unit

In FY2002, multiple tracts were acquired and incorporated into the Jollyville Unit (now totaling 1620 acres). This area was not open to the public with exception of guided access for educational and outreach activities scheduled outside of critical breeding season periods.

Habitat management activities on these tracts included:

- boundary fence delineation and construction
- regular patrols by Travis County BCP Rangers
- intensive endangered species surveys (see attached Appendices T and U)

- assessment and control of non-native and invasive plant species (see Appendix S)
- A browse study was performed in FY2002 to quantify white-tailed deer impacts on habitat restoration efforts and direct wildlife population management actions on the Jollyville Unit. This data is reported in the *Assessment of White-tailed Deer (Odocoileus virginianus) Impacts on the Woody Plant Community on the Woody Plant Community in the Vireo Ridge Restoration Area* attached as Appendix P.
- investigations of karst features (see Appendix X)
- field investigations to map habitats and verify presence of the Jollyville Plateau salamander (see Appendix V)
- Travis County staff trapped brown-headed cowbirds on the preserve, as well as on private property immediately adjacent to the Jollyville Unit. Trapping efforts to reduce feral hog populations and initial investigations to quantify white-tailed deer populations were initiated. A summary of these activities is attached as Appendix W.

Steiner Ranch

The Preserve tracts of Steiner Ranch are comprised of 819 acres in five separate parcels. Conservation Easements on these tracts were transferred to Travis County as partial mitigation required by the USFWS for impacts resulting from the associated development. Under the terms of the Conservation Easement, the Steiner Ranch Master Association (SRMA) maintained access to a limited number of approved nature trails within the Preserve areas. The use of these trails is restricted to hiking, jogging, and nature viewing from maintained trails, and the trails are for the sole use of residents of the development.

Habitat management activities taking place on the Steiner Ranch tracts included:

- boundary fencing and delineation
- routine BCP Ranger patrols
- A discussion of the endangered species surveys performed is found in the *Monitoring of the Golden-cheeked Warbler, 2002 Field Season* report, attached as Appendix U.

Romberg Tract

The 40-acre Romberg tract is not open to the public.

Habitat management activities in FY2002 included:

- BCP Ranger patrols
- site visits
- The tract was not intensively surveyed in FY2002 due to the absence of warbler breeding territories in recent years. Though warblers have been documented foraging

and dispersing juveniles at this location in the past, site visits did not provide any evidence of such use during this nesting season.

Wild Basin Wilderness Preserve

Wild Basin Wilderness Preserve is owned by Travis County and managed through contractual agreement by the Committee for Wild Basin Wilderness, Inc. Travis County Parks and Natural Resources supports operation of the 227-acre Preserve through staff and financial assistance. Public uses allowed prior to dedication of Wild Basin Wilderness as a portion of the BCP continued through the past year. Access is permitted for day use only and is restricted to designated trails. Pets, picnicking, and collecting within the Preserve are prohibited.

Wild Basin Wilderness Preserve contains approximately 2.5 miles of maintained nature trails and provides environmental education and outreach programs for the public. Over 4,000 public and private school children participated in tours or programs during ten weeks of springtime and ten weeks in the autumn. A Summer Camp provides more intensive learning experiences for approximately 220 students each summer. The Committee for Wild Basin Wilderness Preserve has strived to develop relationships with area organizations and businesses, and continues to be an important meeting place for local community, conservation, governmental and corporate groups.

Habitat management activities at Wild Basin Wilderness Preserve in FY2002 included:

- trail maintenance
- erosion control
- re-vegetation projects
- restoration of approximately five acres of golden-cheeked warbler habitat
- hundreds of hours of volunteer efforts to control non-native and invasive plant species
- boundary delineation by improved signage

A summary of activities is presented in the Wild Basin Wilderness Annual Report, attached as Appendix Y.

Travis County's Balcones Canyonlands Preserve education and outreach efforts in FY2002 included:

- Interpretation of research data and information about the BCP and endangered species for the general public, school children, and special interest groups through preserve tours, workshops and exhibits.

- Continuing data collection and scientific study of the species protected by the BCCP, as well as impacts of land management practices. Research data is presented for interested groups and at professional scientific conferences.
- Participation at community events throughout the area, such as the Texas Parks and Wildlife Department's annual "Wildlife Expo", meetings of local chambers of commerce, and conferences for groups with mitigation needs such as real estate agencies and builders associations.
- Informing, evaluating, and problem-solving issues such as alternate mitigation opportunities, acquisition strategies, and land management planning with local landowners, developers, real estate associations, and scientific communities.
- The County utilizes various media opportunities to inform the public about issues related to the Preserves, such as purchase of new Preserve lands, receipt of federal HCP land acquisition grants, and the negative impact of non-native wildlife on ecosystem health. In FY2002, County staff assisted LCRA with videotaped descriptions of vireo habitat and restoration activities.
- A new brochure was created to address common public concerns related to the BCP, including species protection, access issues, and provide contact information for BCP partners. The brochure has been formatted for inclusion on the Travis County web site in early FY2003.
- Information packets for distribution in Washington, D. C. were created to support lobbying efforts by City Council members and County Commissioners seeking support of the BCCP and continued funding of national Habitat Conservation Planning (Section 6) grants.

The Lower Colorado River Authority

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

Westcave

- LCRA staff conducted territory level surveys for golden-cheeked warblers. At least four and possibly six territories were delineated.

- Preserve staff hosted more than 4798 students, teachers, tourists, researchers, and nature-enthusiasts, and gave more than 381 on-site tours and off-site presentations.

- Construction of the new environmental learning center continued, with the opening scheduled for spring 2003.

- Six visits totaling 30.5 hours were spent surveying for golden-cheeked warblers at Westcave Preserve. At least four and possibly six territories were delineated. Four females and no fledglings were observed during the season.

McGregor

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

- LCRA continued to collaborate with the Comanche Trail Community Association (CTCA). The McGregor Good Neighbor Program 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 and the CTCA Dirt Club terraced the corner of the preserve (at Mountain Trail and Comanche Trail) that is to showcase wildscaping for the general area.

- 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.

- Endangered species surveys were not conducted on this tract in 2002.

Wheless

- A comprehensive territorial survey of the entire property was conducted by Loomis Austin, Inc. More than 90 total and partial territories were delineated.

- Two-hundred-six visits were made with a total of 979 hours spent on site surveying for golden-cheeked warblers at Wheless Preserve. Survey time was split among the entire preserve and on two 100-acre plots designated as prime habitat and transitional habitat.

- A total of 70 complete and 22 fractional territories were recorded on the entire preserve. Three complete and four fractional territories were documented on the

100-acre plot designated as prime habitat. Three fractional territories and one complete cluster were documented on the 100-acre plot designated as emerging habitat.

- 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. Mountain bike tracks are seen frequently on upland sections of the preserve. Points of entry have been identified through the property surveys. Fence repair and additional signage at these locations should help alleviate the problem

- The BCVI habitat manipulation area was monitored to determine the success of woody vegetation establishment following the January 2002 clearing.

The Nature Conservancy of Texas
Barton Creek Habitat Preserve

Education Partnership Plan
The Education Partnership Plan was drafted this past October by The Nature Conservancy to describe the educational objectives at the Barton Creek Habitat Preserve. The Nature Conservancy intends to fill a needed function in the Austin environmental education community. We want to work with local area organizations for the common purpose of environmental education. Therefore, we have identified two niches in the Austin community that the Barton Creek Habitat Preserve can help fill: (1) offer The Nature Conservancy's large tract of contiguous land as a resource for other local environmental education organizations to use for their educational programming, and (2) provide educational internships at the university level.

Environmental Education
The Barton Creek Habitat Preserve is one of the closest and largest expanses of protected wild land near downtown Austin. Due to contractual agreements, the use of the preserve cannot degrade existing or future natural habitat and supporting environmental resources. In fact, preference is given to uses that actually enhance habitat conditions. In addition, use of the preserve must fulfill an interpretative, scientific, or educational purpose.

The preserve's proximity to a major urban area offers exceptional opportunities to educate the public about biodiversity and environmental conservation. Austin environmental education organizations may bring their associated members, students,

volunteers, personnel, and/or docents to the preserve to fulfill their training needs, give educational tours and interpretative walks, perform habitat restoration work, and conduct research projects.

Visitation Policies

Educational Tours and Interpretive Walks: *The Nature Conservancy feels each visiting group must be accompanied by an interpretive guide or group leader, and all interpretive guides and group leaders must attend orientation at our preserve to help them become familiar with site features while identifying policies, procedures, emergency requirements, etc.*

Docent, Volunteer and Staff Training

The Nature Conservancy will make the Barton Creek Habitat Preserve available to environmental organizations for training of their staff, docents, and volunteers. Preserve management practices used at the Barton Creek Habitat Preserve provide an excellent opportunity for instruction and training. These practices include, but are not limited to, habitat restoration, prescribed burning, bird surveying, plant surveying, and wildlife management.

Research

Research proposals may be accepted from environmental organizations, individuals, undergraduate college classes, and graduate students. Approval of research projects and access will be predicated on the scientific merit of the proposed project and its contribution to the preserve management of the Barton Creek Habitat Preserve. Relevant data from research performed at the Barton Creek Habitat Preserve must be made available to The Nature Conservancy for its use. Researchers must make sure we receive a copy of any published or unpublished final reports, and that The Nature Conservancy of Texas is acknowledged in any subsequent publications from this research.

Core Ecological Zones

Because of habitat characteristics or contractual obligations for ecological management, certain areas on the Barton Creek Habitat Preserve are considered especially sensitive to any type or level of activity. These areas are termed “core ecological zones”. These areas will be available on a limited basis for educational purposes or research, and only with written or verbal consent. Core ecological zones are designated by red and yellow “DO NOT DISTURB” signs along their boundaries. See included maps for more details.

Internship Program

There is a strong desire among students from local area universities to participate in internship opportunities. The Nature Conservancy feels that the Barton Creek Habitat Preserve is ideally suited to provide internships to undergraduate students looking for experience in habitat restoration and preserve stewardship. This is an excellent educational opportunity for both the student and The Nature Conservancy.

At the beginning of their internship, interns will be oriented to The Nature Conservancy's mission and goals at the Barton Creek Habitat Preserve. Interns are required to work a minimum of 15-20 hours a week on a regular schedule to be created with the help of the preserve manager. Schedules will be flexible around the interns' work or school schedules. There are two major components to this internship, (1) an intern project, and (2) preserve management job duties. These two components go hand in hand. However, both must be fulfilled to complete a satisfactory internship experience.

Intern Project

At the beginning of the internship, a proposal for an intern project must be submitted to the preserve manager and Edwards Plateau land steward describing the intern's area of research interest, how he or she will go about completing the project, who their resource contacts are, and the components of the project.

By the end of the internship, the intern project should be completed. All intern projects will be posted on The Nature Conservancy's Barton Creek Habitat Preserve website. The website will work not only as a public education tool, but will also orient others to what we are doing at our preserve.

Examples of Intern Projects

- Interpretive signs for interpretive trail, informational kiosk design and creation, trail map, design for new trail creation, a Barton Creek Habitat Preserve interpretive guide pamphlet, or a plant and bird list.
- Creation of new point counts for golden-checked warblers, chainsaw operation procedure and safety manual, and research stewardship needs at preserve.
- Research paper describing habitat restoration techniques at the Barton Creek Habitat Preserve and other habitat restoration techniques.

Preserve Management Job Duties

The other component to the internship is the fulfillment of preserve management job duties. Job duties are designed in an effort to offer interns real-world experience with on-the-ground application. Each intern will be required to help manage the preserve as a part of his or her internship.

Successes

Since the beginning of this year the Barton Creek Habitat Preserve has seen a lot of visitors, researchers, and volunteers. Volunteer workdays are now held almost twice a month covering a variety of projects, including bottomland restoration, Ashe juniper removal, Adopt-A-Highway cleanups, 25K race, trail maintenance, and maintenance of facilities. Several individuals have started individual projects such as educational exhibits and an informational kiosk.

Many more educational groups such as the Austin Youth River Watch Foundation, The Boy Scouts of America, Sierra Club's Inner City Outreach, and The Girl Scouts of America are participating on a regular basis and performing service projects. These groups have participated on many levels including brush clearing, the creation of campsites, and water quality testing. There are plans being developed by one Boy Scout group to possibly create a composting toilet and outdoor/shower near our camping area.

The internship program at Barton Creek has also been very successful. This past Fall we had our first undergraduate intern from St. Edward's University. Our intern quickly submersed herself into the bottomland hardwood restoration project, and has been very successful completing research on the preserve's bottomland areas along Barton Creek. Through her efforts we now have an excellent inventory listing of our planted hardwoods which includes their GPS coordinates, genus species, tag number, and age. We have agreed to continue the internship until the end of the coming semester to complete a more thorough research project.

St. Edward's University faculty have been supportive of our efforts at Barton Creek, including providing interns paid through work study, and initiating research on the preserve. Dr. Quinn of the Biology Department has shown interest in starting a long-term study of Ashe juniper recruitment. Dr. Quinn has also showed interest in using the preserve to teach several of his field-oriented classes practical applications of land

stewardship and habitat restoration. Several of his students will also participate in our photo-point monitoring, and habitat restoration projects.

Another partnership we established recently is with Tree Folks. Tree Folks is a local nonprofit that focuses on tree plantings, public education and outreach. We are working with Tree Folks to initiate restoration of hardwood trees within several identified restoration sites along Barton Creek.

The Nature Conservancy is also working The Community Mapping Program of the Orton Family Foundation to create several GIS/GPS projects for middle school and high school students interested in geography. Plans are in the works for mapping several aspects of preserve stewardship, areas of historic and archeological significance, infrastructure, and restoration areas.

Other environmental education partners we are working with are Wild Basin, The Lady Bird Johnson Wildflower Center, American YouthWorks, and the LCRA. We hope to work with these and other organizations to establish several education programs focusing on restoration, land management, and environmental education.

Future Plans

The Nature Conservancy is currently planning to build an education center for the Barton Creek Habitat Preserve that is expected to be completed in one to two years. The education center will provide office space for The Nature Conservancy's staff and interns as well as an indoor meeting room, restrooms, storage, and an indoor classroom/laboratory. A larger parking lot, an interpretative center, and kiosk are also in the plans for development.

Travis Audubon Society

Baker Sanctuary

Access and trail maintenance

- The Sanctuary was open from January 26 until October 27 at which time the gates were locked and the Sanctuary Managers, Marcie and John Wilcox, posted a closure notice.
- On March 23, the Travis Audubon Society held their annual open house at the Sanctuary with guided tours from 9:00 AM until noon. 101 visitors toured the Sanctuary.

- John Wilcox maintained the trails by removing fallen limbs, removing rocks, filling holes and installing water bars.
- During the 2002 visitor season, the Sanctuary had 284 registered visitors of which 62% were members. The non-member visitors had prior permission to enter the Sanctuary.
- John Wilcox monitored the Pedernales Electric Coop's power line upgrade on the Sanctuary.

Boundary control

- The Sanctuary Managers continued to monitor neighboring development.

General maintenance

- John Wilcox picked up trash on the Sanctuary right-of-way 14 times.
- The Sanctuary Managers hauled 117 bags of trash to the Travis County Solid Waste Transfer Station.
- John Wilcox mowed and trimmed the Headquarters Area, Parking Lot and around the Baker Cabin 11 times.
- John Wilcox installed new perimeter fencing around the Baker Family Cemetery.

Problem animal control

- During the 2002 WTD season, the Sanctuary Managers managed eight deer hunting leases: four for gun hunters and four for archers. As of December 16, 2002 fifteen deer (5 bucks and 10 antlerless deer) were taken. All hunters on the Sanctuary filled out the TAS Hunting Application and signed off on the TAS Liability, Indemnity and Release form as well as the TAS Hunting Regulations.
- Feral hogs have not been a problem at the TAS-BS during 2002.
- John Wilcox trapped 50 cowbirds in 2002. He had one non-target capture and no non-target fatalities.

Endangered species

- John Kelly surveyed the TAS-BS 100 acre GCW plot in 2002 and found 8 warbler territories.
- The Sanctuary Committee met at the TAS-BS three times during 2002.

Restoration

- John Wilcox caged 15 oak saplings.

Cultural resources

- John Wilcox installed the Texas Historical Commission Historic Cemetery Medallion and Name Plaque at the Baker Family Cemetery.

Copies of all research or investigative reports prepared during FY02

Abbruzzese, Carlo. 2002 Golden-cheeked Warbler and Black-capped Vireo Monitoring Program. City of Austin WWW Conservation Lands Division, Balcones Canyonlands Preserve Program. See Appendix E.

Davis, Jackie and Donald L. Koehler. City of Austin White-tailed Deer Survey Program. City of Austin WWW Conservation Lands Division, Balcones Canyonlands Preserve Program. See Appendix F.

Hardy, Dan. Initial Findings of Investigations Concerning Palamedes Swallowtail Butterflies at Hamilton Pool Preserve, Travis County, Texas. See Appendix G.

Koehler, Donald L. and William A. Conrad. City of Austin White-tailed Deer Management Program. City of Austin WWW Conservation Lands Division, Balcones Canyonlands Preserve Program. See Appendix H.

Loomis Austin. 2002 Golden-cheeked Warbler (*Dendrioca chrysoparia*) survey of the Wheless Preserve. Prepared for the Lower Colorado River Authority. See Appendix I.

Lytle, Melody and Donald L. Koehler. City of Austin Feral Hog Control Program. City of Austin WWW Conservation Lands Division, Balcones Canyonlands Preserve Program. See Appendix J.

Lytle, Melody and Donald L. Koehler. City of Austin Public Outreach Program. City of Austin WWW Conservation Lands Division, Balcones Canyonlands Preserve Program. See Appendix K.

The Nature Conservancy of Texas. Monitoring and Management of Black-capped Vireos (*Vireo atricapillus*) and Golden-cheeked Warblers (*Dendrioca chrysoparia*) on the Barton Creek Habitat Preserve. See Appendix L.

Pavlas, Melanie. 2002 Rare Bird Survey Report: LCRA Westcave Preserve, Travis County. See Appendix M.

Sanders, Mark and Donald L. Koehler. City of Austin Cistern Spring Restoration and Salamander Habitat Enhancement. City of Austin WWW Conservation Lands Division, Balcones Canyonlands Preserve Program. See Appendix N.

Travis County Natural Resources. Cultural Resources Management on Travis County Balcones Canyonlands Preserve Tracts 2002 Annual Report. See Appendix O.

Travis County Natural Resources. Law Enforcement Summary for Travis County Balcones Canyonlands Preserve Tracts FY2002 Annual Report. See Appendix P.

Travis County Natural Resources. Monitoring and Management of Plant Species of Concern on the Balcones Canyonlands Preserve in FY2002, Project Number 0810-02907, 0810-02904. See Appendix Q.

Travis County Natural Resources. Monitoring of the Black-capped Vireo 2002 Field Season, Project Number 0810-0201. See Appendix R.

Travis County Natural Resources. Monitoring of the Golden-cheeked Warbler 2002 Field Season, Project Number 0810-01001. See Appendix S.

Travis County Natural Resources. Monitoring of the Jollyville Plateau Salamander (*Eurycea tonkawae*) on Travis County tracts of the Balcones Canyonlands Preserve, Project Number 0905-0223 See Appendix T.

Travis County Natural Resources. 2002 Summary of Wildlife Management Activities on Travis County Managed Tracts of the Balcones Canyonlands Preserve, Project Numbers 0905-0220, 0905-0226. See Appendix U.

Travis County Natural Resources and City of Austin BCP-WWW. Balcones Canyonlands Preserve Karst Management 2002 Annual Report, Project Number 0905-0221. See Appendix V.

The Committee for Wild Basin Wilderness, Inc. Wild Basin Wilderness Preserve 2002 Annual Report. See Appendix W.

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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.

City of Austin and Travis County. 1999. Balcones Canyonlands Preserve Land Management Plan, Vol. I-III.

U. S. Department of the Interior, Fish and Wildlife Service. 1996. Federal Fish and Wildlife Permit No. PRT-788841.

U. S. Department of the Interior, Fish and Wildlife Service. 1996. 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.