Balcones Canyonlands Conservation Plan
Infrastructure Working Group

Infrastructure Maintenance Training

Thursday, October 10, 2013

Balcones Canyonlands Conservation Plan Infrastructure Working Group
Thursday, October 10, 2013 8:00 a.m. – 1:00 p.m.
J.J. Pickle Research Campus, Commons Bldg. Big Tex Auditorium 1.102

7:30 a.m. – 8:00 a.m. **Arrival and Sign-In**
Showing of the Texas Parks and Wildlife Golden-Cheeked Warbler Video

8:00 a.m. -8:05 a.m. **Welcome**
(Jennifer Leeper, LCRA)

8:05 a.m. – 8:35 a.m. **Balcones Canyonlands Conservation Plan and Infrastructure 101**
(Sherri Kuhl, City of Austin)

8:35 a.m. – 9:00 a.m. **Mapping the Balcones Canyonlands Preserve**
(Kimberlee Harvey, City of Austin)

9:00 a.m. – 9:30 a.m. **Oak Wilt and Forest Stand Management**
(Eric Beckers, Texas A&M Forest Service)

9:30 a.m. – 10:00 a.m. **Infrastructure Considerations for the Endangered Species of the BCP**
(Bill Reiner, City of Austin)

10:00 a.m. – 10:25 a.m **Break/Travel**
Water Treatment Plant 4 Tunnel Video

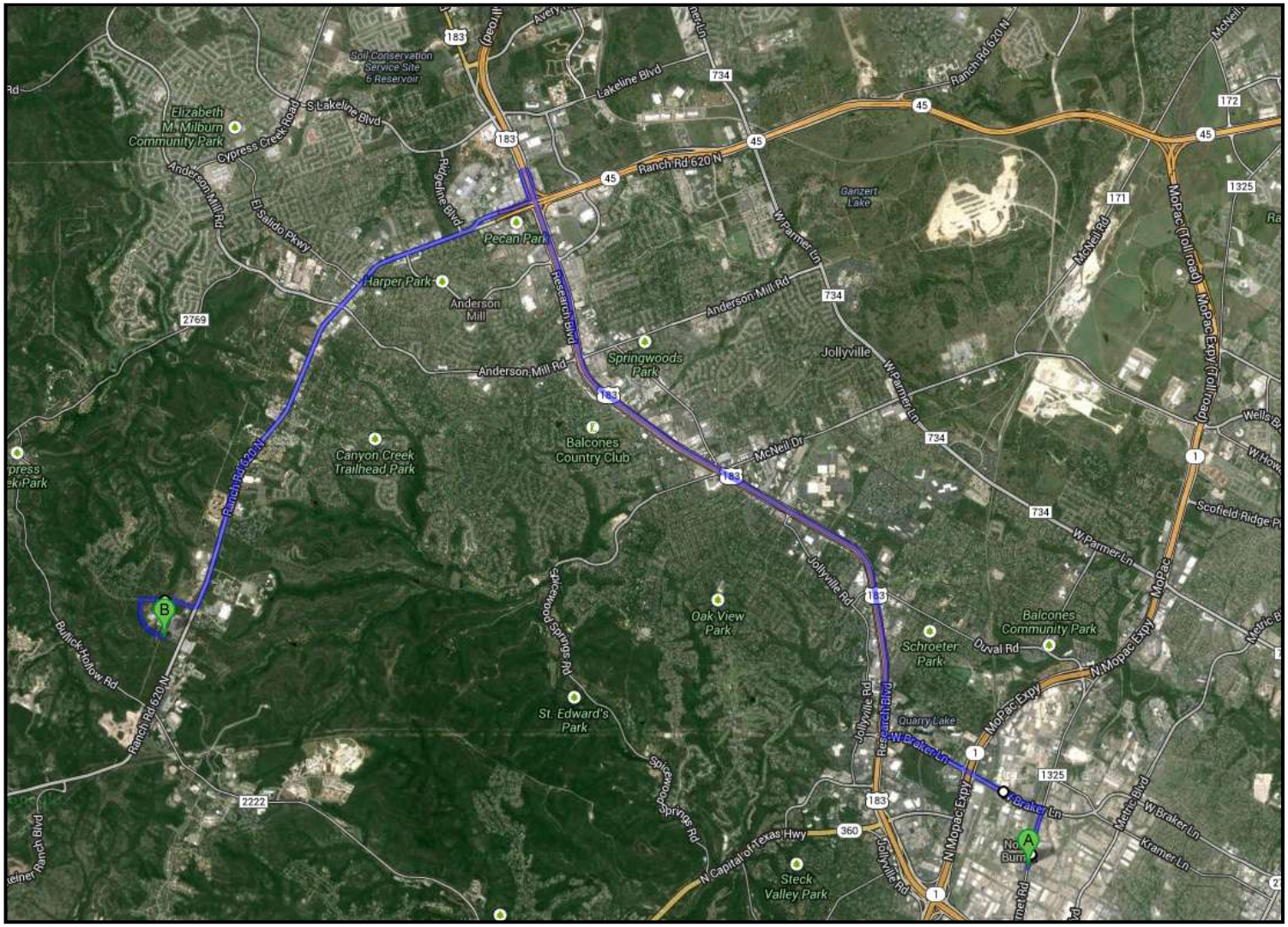
	Field Personnel **Vista Tract Travis County**	**Project Managers/Supervisors** **JJ Pickle Center**
10:25a.m. -11:00a.m.	**Travel** **Preserve Orientation**	**Environmental Commissioning for the Jollyville Transmission Main: Ensuring Environmental Protection for the Really Big Tunnel** (Thais Perkins & David Johns, City of Austin)
11:00a.m.-11:30a.m.	**Tree Health And How to Prevent Oak Wilt And Reduce Wildfire Concerns** (Eric Beckers, Texas A&M Forest Service; Luke Ball and John Chenoweth, City of Austin)	**Guidance On Applying for a BCCP Infrastructure Permit** (Kimberlee Harvey, City of Austin)
11:30a.m.-12:00p.m.	**Golden-Cheeked Warbler Habitat and Monitoring Prg.** (Jim O'Donnell and Cindy Sperry, City of Austin)	**Lessons Learned: Successes and Challenges of BCCP Infrastructure** (Wendy Connally, Travis County and Sherri Kuhl, City of Austin)
12:00-12:30p.m.	**Karst Environments and Concerns** (Todd Bayless and William Simper, Travis County)	**Panel Discussion: Questions and Answers from Audience** **Reverse Panel Discussion: Questions and Answers to Audience**

Wrap-up/Evaluation drop-off/Collect Certificates

JJ Pickle Research Center to Field Trip Site Directions
(Travis County BCP)

After the morning break field staff will drive to the field trip site. Supervisor/Project Managers will stay at JJ Pickle for presentations.

1. Head north on Burnet Rd for .05 mi
2. Turn left onto W Braker Ln and travel for 1.5mi
3. Turn right onto Research Blvd and take the ramp onto US-183 N travel on the HWY for 5.9 miles
4. Take the exit toward US-183/Lakeline Mall Dr
5. At light, loop under the highway onto the access road of Research Blvd heading south.
6. Turn right onto Ranch Rd 620 N and travel 5 miles
7. Just after Concordia University turn right onto Wilson Parke Ave
8. Turn left onto Vista Parke. Vista Parke road is a wide road with space for parking along the side of the road. Please be careful parking and walking to the preserve.



Please call 512-293-1551 if you get lost on your way to the field trip location.

BALCONES CANYONLANDS PRESERVE
LAND MANAGER CONTACT INFORMATION

CITY OF AUSTIN, AUSTIN WATER UTILITY			
Willy Conrad**	o: 512-972-1661	william.conrad@austintexas.gov	Division Mgr., Wildlands Conservation Division
Kimberlee Harvey	o: 512-972-1686	kimberlee.harvey@austintexas.gov	Environmental Program Coordinator
Sherri Kuhl	o: 512-972-1664	sherri.kuhl@austintexas.gov	BCP Program Manager
CITY OF LAKEWAY / ALTA VISTA (SCHRAMM RANCH)			
Chessie Blanchard	o: 512-261-6098	zoning@cityoflakeway.com	Deputy City Manager
CITY OF SUNSET VALLEY			
Carolyn Meredith	o: 512-891-9103	cmeredith@sunsetvalley.org	Env. Services Manger
Katy Phillips	o: 512-891-9103	kphillips@sunsetvalley.org	Director, Public Works & Environmental Services
6D RANCH			
Tammy Goforth	o: 512-263-8684 x114	tammy@dfiaustin.com	Ranch Manager
LOWER COLORADO RIVER AUTHORITY (LCRA)			
Jarrod Depew	o:830-596-7213	jarrod.depew@lcra.org	Senior Natural Resource Conservation Coord.
THE NATURE CONSERVANCY OF TEXAS			
Brandon Crawford	o: 512-263-8878	bcrawford@TNC.org	Barton Creek Habitat Preserve Steward
TRAVIS AUDUBON SOCIETY			
Christopher Murray	o: 512-263-2237	bakersanctuary@travisaudubon.org	Preserve Steward
TRAVIS COUNTY			
Michael Wallace	o: 512-854-7213	mike.wallace@co.travis.tx.us	Environmental Specialist
Wendy Connally	o: 512-854-7214	wendy.connally@co.travis.tx.us	Program Manager Natural Resources
Linda Laack	o: 512-219-6190, ext. 8	linda.laack@co.travis.tx.us	Environmental Resources Management Specialist Senior
WILD BASIN PRESERVE			
John Abbott	o: 512-327-7622	johnca@stedwards.edu	Director
Kendra Abbott	o: 512-327-7622	kendra@stedwards.edu	Instructor of Research and Education
o = office phone	** BCCP Secretary		*List Revised 9/24/13*

Balcones Canyonlands Conservation Plan
Fact Sheet

- From 1988 through 1996, a collaboration of local concerned citizens, business leaders, landowners, developers, environmental groups, scientists and the U.S. Fish and Wildlife Service (USFWS) worked together to create a Habitat Conservation Plan under the Endangered Species Act (ESA) for the Austin area.

- On May 2, 1996, the City of Austin (COA) and Travis County (TC) were jointly issued a regional USFWS Incidental Take (or Section 10(a)1(B)) permit as a result of this community effort. The 30 year Balcones Canyonlands Conservation Plan (BCCP) allows for the "incidental take" of two endangered bird species and six endangered karst species within Western Travis County.

- The BCCP was the first Regional multi-species Habitat Conservation Plan in the nation and continues to serve as a national model for community-based conservation that seeks to balance a healthy economy with healthy ecosystems. Its success is a multi-agency effort with BCP acreage managed by the COA, TC, Lower Colorado River Authority, Travis Audubon Society, The Nature Conservancy of Texas, St. Edwards University, Concordia University, Texas Cave Management Association, and numerous private land owners.

- An incidental take permit authorizes the loss of endangered species or their habitat associated with otherwise legal activities in exchange for minimization and mitigation measures that benefit the affected species. The BCCP provides coverage for the following endangered species listed here, plus 27 additional species of concern:
  - Black-capped vireo (*Vireo atricapillus*)
  - Golden-cheeked warbler (*Setophaga chrysoparia*)
  - Tooth Cave spider (*Neoleptoneta myopica*)
  - Tooth Cave pseudoscorpion (*Tartarocreagris texana*)
  - Kretschmarr Cave Mold Beetle (*Texamaurops reddelli*)
  - Bee Creek Cave harvestman (*Texella reddelli*)
  - Bone Cave harvestman (*Texella reyesi*)
  - Tooth Cave ground beetle (*Rhadine persephone*)

- The BCCP provides a quick and efficient pathway for the Permit Holders and private landowners to comply with federal law and mitigate for impacts that their land use practices may have on protected species. The Permit provides a streamlined alternative to the normal USFWS consultation and determination process.

- Approximately 1/3 of the Preserve is currently open to the public including Barton Creek Greenbelt, Emma Long Park, Commons Ford Park, St. Edwards Park, Mount Bonnell Park, Wild Basin Preserve, Hamilton Pool, and Westcave Preserve. The public can visit other parts of the Preserve on regularly scheduled tours, on Hike and Lecture Series tours, and through Preserve Volunteer proms.

- Management activities include surveys (for endangered species habitat, sensitive areas, creeks, springs, caves, rare plants, etc); census and monitoring of golden-cheeked warbler, black-capped vireo, karst species, and Jollyville Plateau salamander; maintaining fences, signs, roads and trails; management of populations of deer, feral hogs, brown-headed cowbirds, and non-native invasive species; monitoring of adjacent development to prevent damage from erosion and sedimentation; and patrols to protect the tracts.

For more information, please contact:
City of Austin Balcones Canyonlands Preserve Program at 512-972-1664
www.balconescanyonlands.org
Travis County Natural Resources Program at 512-854-9437
http://www.co.travis.tx.us/tnr/bccp/

BCCP TERMS AND DEFINITIONS

Balcones Canyonlands Conservation Plan (BCCP)
A Habitat Conservation Plan approved by the U. S. Fish and Wildlife Service (USFWS) for the western portion of Travis County on May 2, 1996.

Balcones Canyonlands Preserve (BCP)
The system of nature preserves which protects eight local endangered species. The Preserve was created in connection with the BCCP and operates under a Regional 10(a) permit issued by the USFWS as authorized by the federal Endangered Species Act of 1973.

BCCP permit area
The Regional 10(a) permit covers western Travis County, roughly the area west of the Mopac Rail line.

Drainage Basin
A watershed; the area from which a stream, spring, or conduit derives its water.

Edge effect
Abiotic (temperature, light, noise, etc.) and biotic (edge predators, urban predators, humans, etc.) factors that occur adjacent to fragmentation edges and can result in impacts to the species of concern and/or their habitat.

Habitat
The natural environment in which a plant or animal can live or grow. Examples of habitat include shrub, savannah, prairies, woodlands, karst and aquifer habitats.

Habitat fragmentation
Fragmenting large blocks of habitat into smaller blocks of habitat through the processes associated with urbanization, i.e., roads, subdivisions, and utility corridors. Fragmentation of habitat reduces habitat quality for woodland songbirds.

Hydrology or Hydrologic
The study of water and its origin and movement of water in atmosphere, surface, and subsurface.

Juniper-oak woodlands
This particular habitat is characteristic of the Balcones Canyonlands. Large patches of mature juniper/oak woodland provides habitat for the golden-cheeked warbler.

Karst
A terrain characterized by landforms and subsurface features, such as sinkholes and caves. Karst areas commonly have few surface streams; most water moves through cavernous openings underground.

Karst invertebrate
Cave-dwelling animal that lacks a backbone.

Natural or native nest predators
Texas rat snake, Ringtail, and scrub jays are examples of nest predators associated with openings and corridors in closed canopy woodland.

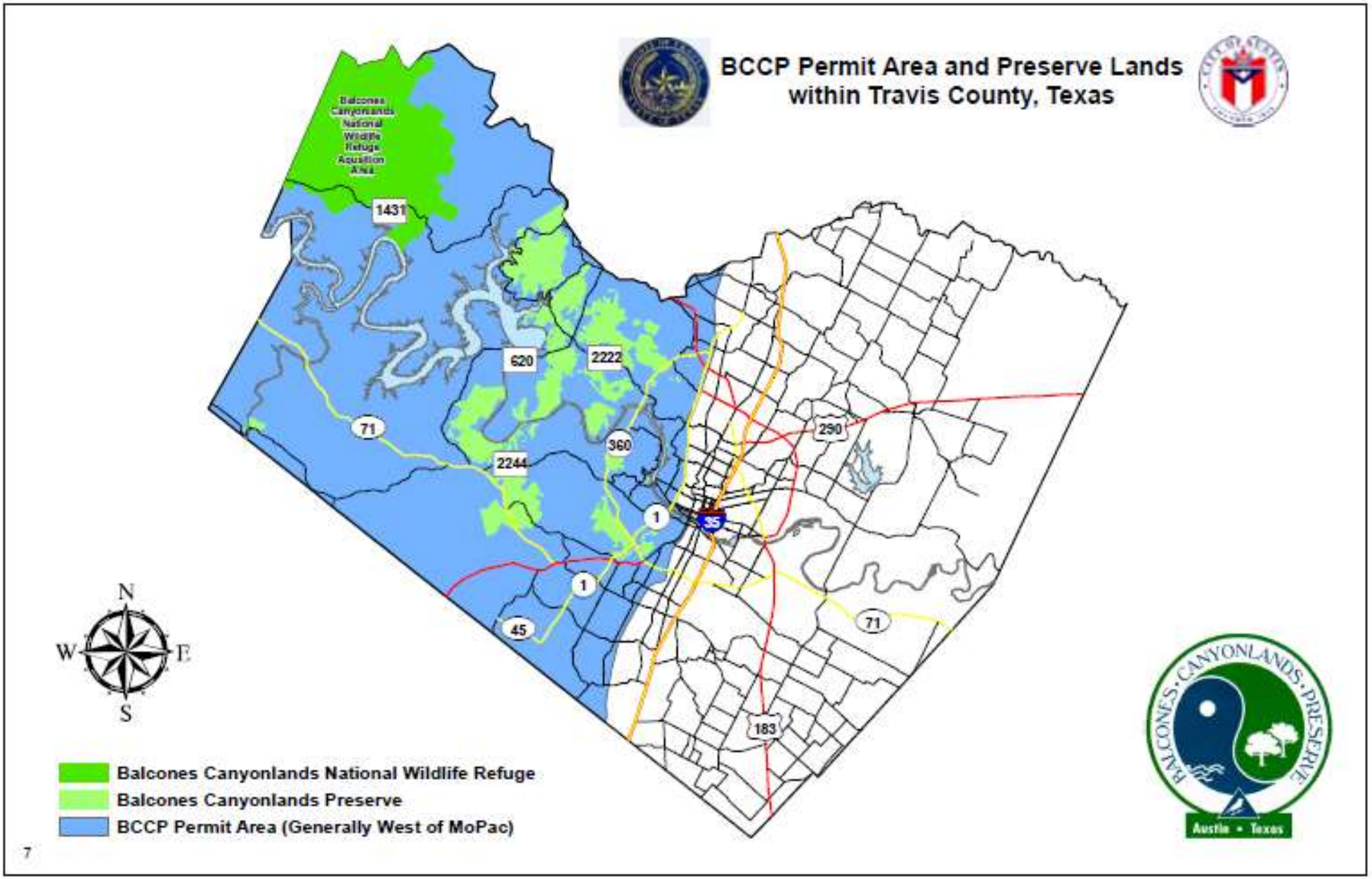
Neotropical migrant
Birds which migrate twice a year between their breeding grounds in more northern areas and their wintering grounds in more southern areas.

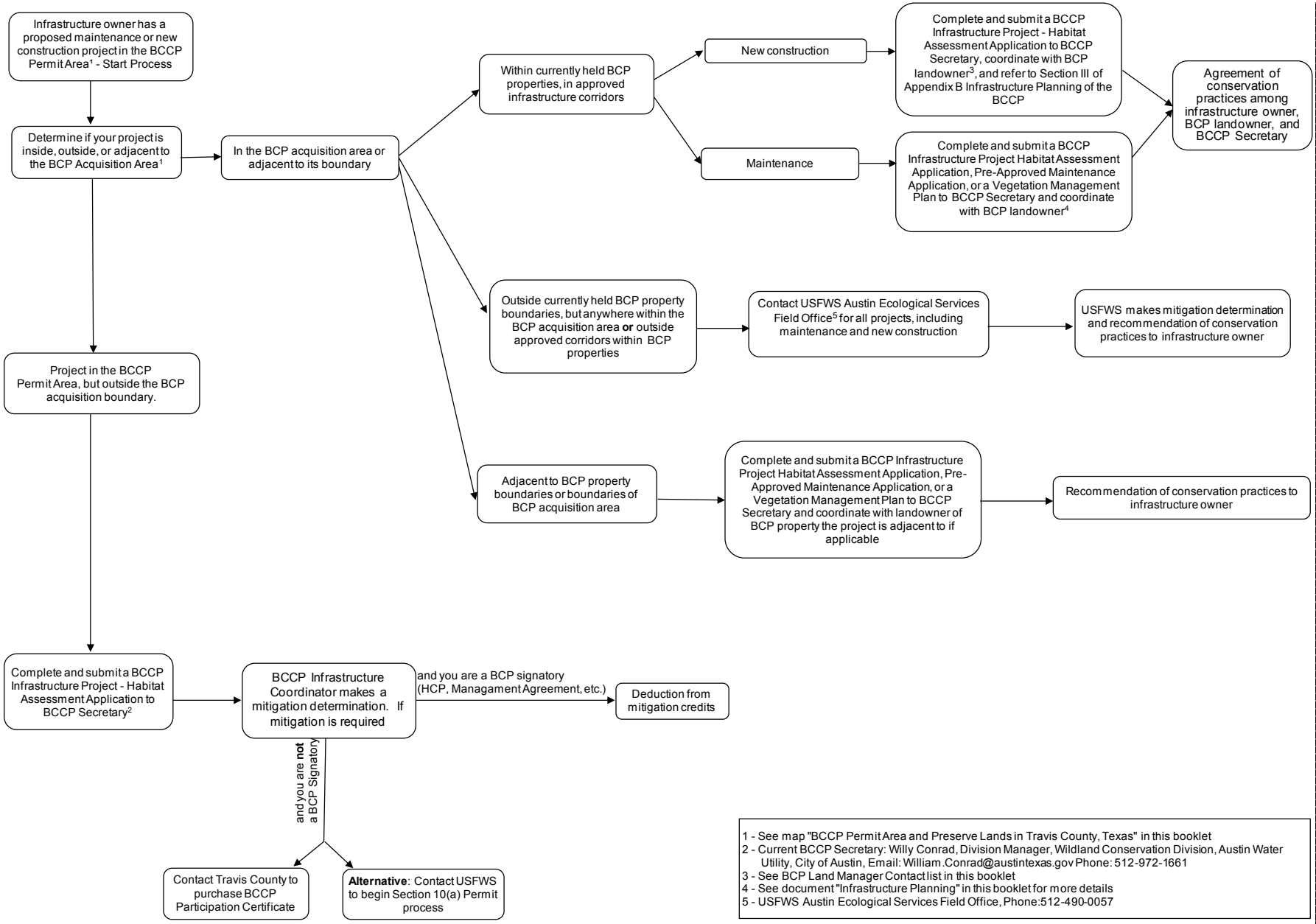
Nest parasitism
Brown-headed cowbirds lay their eggs in the nests of other bird species which usually results in a lowered productivity of the nesting species. Fragmentation increases the likelihood of this type of parasitism by opening corridors in the closed canopy woodlands.

Troglobite
An animal that completes its lifecycle and spends its entire life in openings underground (such as caves).

Trogloxene
A cave-dwelling animal that leaves the cave on a regular basis to feed, such as bats, cave crickets, and daddy long-legs.

Urban or edge nest predators
Blue jays, crows, domestic and feral cats, raccoons, Eastern fox squirrel, opossum, and Red Imported Fire Ants are examples of predators common to corridors associated with the urban/wildland interface or edge.


BCCP Permit Area and Preserve Lands
within Travis County, Texas
Balcones Canyonlands National Wildlife Refuge Aquisition Area
1431
620
2222
71
2244
360
290
1
35
1
45
71
183
N
W
E
S
Balcones Canyonlands National Wildlife Refuge
Balcones Canyonlands Preserve
BCCP Permit Area (Generally West of MoPac)
7
BALCONES · CANYONLANDS · PRESERVE
Austin • Texas


Infrastructure owner has a proposed maintenance or new construction project in the BCCP Permit Area[1] - Start Process
Determine if your project is inside, outside, or adjacent to the BCP Acquisition Area[1]
In the BCP acquisition area or adjacent to its boundary
Within currently held BCP properties, in approved infrastructure corridors
New construction
Complete and submit a BCCP Infrastructure Project - Habitat Assessment Application to BCCP Secretary, coordinate with BCP landowner[3], and refer to Section III of Appendix B Infrastructure Planning of the BCCP
Maintenance
Complete and submit a BCCP Infrastructure Project Habitat Assessment Application, Pre-Approved Maintenance Application, or a Vegetation Management Plan to BCCP Secretary and coordinate with BCP landowner[4]
Agreement of conservation practices among infrastructure owner, BCP landowner, and BCCP Secretary
Outside currently held BCP property boundaries, but anywhere within the BCP acquisition area or outside approved corridors within BCP properties
Contact USFWS Austin Ecological Services Field Office[5] for all projects, including maintenance and new construction
USFWS makes mitigation determination and recommendation of conservation practices to infrastructure owner
Project in the BCCP Permit Area, but outside the BCP acquisition boundary.
Adjacent to BCP property boundaries or boundaries of BCP acquisition area
Complete and submit a BCCP Infrastructure Project Habitat Assessment Application, Pre-Approved Maintenance Application, or a Vegetation Management Plan to BCCP Secretary and coordinate with landowner of BCP property the project is adjacent to if applicable
Recommendation of conservation practices to infrastructure owner
Complete and submit a BCCP Infrastructure Project - Habitat Assessment Application to BCCP Secretary[2]
BCCP Infrastructure Coordinator makes a mitigation determination. If mitigation is required
and you are a BCP signatory (HCP, Managament Agreement, etc.)
Deduction from mitigation credits
and you are not a BCP Signatory
Contact Travis County to purchase BCCP Participation Certificate
Alternative: Contact USFWS to begin Section 10(a) Permit process
1 - See map "BCCP Permit Area and Preserve Lands in Travis County, Texas" in this booklet
2 - Current BCCP Secretary: Willy Conrad, Division Manager, Wildland Conservation Division, Austin Water Utility, City of Austin, Email: William.Conrad@austintexas.gov Phone: 512-972-1661
3 - See BCP Land Manager Contact list in this booklet
4 - See document "Infrastructure Planning" in this booklet for more details
5 - USFWS Austin Ecological Services Field Office, Phone:512-490-0057

INFRASTRUCTURE PLANNING GUIDELINES

Guidelines for the Operation and Maintenance of Facilities within the Balcones Canyonlands Preserve (BCP)

- The Coordinating Committee Secretary (CCS) shall be notified of any planned maintenance within preserves by the various service providers or their contractors. Willy Conrad, City of Austin Wildland Conservation Division Manager, serves as the CCS for the BCP. See the Land Manager Contact list at the beginning of this booklet for contact information.
- The notification shall contain a brief description of planned work and approximate dates the work will be performed. Information needed to review infrastructure projects is provided in the BCCP Infrastructure Project – Habitat Assessment Application (copy provided in this booklet, and on the City of Austin's website: www.balconescanyonlands.org. This application should be completed and submitted to the City of Austin BCP for any new construction projects. For maintenance activities, a Habitat Assessment Application, Pre-Approved Maintenance Application, or a Vegetation Management Plan may be submitted.
- In addition to working with the City of Austin BCP, service providers will need to coordinate with the BCP landowner(s).

Pre-Approved Maintenance

- Service providers shall work with the CCS to define and secure pre-approval for operation and maintenance activities that may occur with a given corridor.
- Where such maintenance activities are repetitive, mutually agreeable schedules shall be established.

Emergency Maintenance

- Structural, facility, or equipment problems that threaten reliability or safety must be handled immediately.
- Equipment used during an emergency can vary widely and is dependent upon the circumstances surrounding the emergency.
- Work done under these circumstances may impact species of concern. Work during an emergency should be done in such a manner as to minimize disruption and potential impacts to the species and their habitats.
- Efforts shall be made to contact the CCS for advice and guidance during emergency maintenance work.
- Written notification describing the emergency maintenance work done shall be sent to the CCS within five (5) working days after such work is completed. The infrastructure provider should also contact the BCP landowner(s) during or immediately following the emergency to discuss what occurred.

Scheduled Maintenance

- The CCS shall be notified in writing in advance of any maintenance activities not covered under "Pre-Approved Maintenance" and "Emergency Maintenance."
- This type of scheduled work could consist of major facility replacement, repair and maintenance, installation of cross and driveway culverts, grading and re-shaping of ditches, and clearing right-of-way.

Maintenance of Corridors

1. Access to all facilities shall be established, clearly identified on a map, and maintained.

- The CCS shall work closely with the service providers to designate specific access routes to all structures and facilities, consolidating access routes where possible and minimizing impact on the species of concern.
- The maximum width of these access routes shall be twenty feet (20'), except that they may be wider in any curve to allow for clearance of truck booms.
- Where possible, a closed canopy should be maintained over access routes to minimize fragmentation of the habitat and potential impacts on species of concern.

2. Existing cleared areas near structure sites shall be used where possible to reduce clearing requirements.

- Existing low-lying vegetation at structures shall be preserved to the maximum extent possible.
- If needed, additional clearing at structure sites shall be limited.
- Service providers shall work closely with the CCS whenever manipulation of vegetation is required to ensure minimal impact on species of concern.

3. Clearing and trimming along the corridors shall be limited to the following:

- Clearing/trimming from September 1 through February 28, outside of the breeding season of the Golden-cheeked Warbler and Black-capped Vireo.
- Minimum clearing for surveying purposes (typically a four foot [4'] line of sight).
- Strategic mechanical removal or trimming of vegetation, limited only to vegetation that is detrimental to the operation and maintenance of facilities. Requests to use chemicals may be approved by the CCS on a case-by-case basis only.

INFRASTRUCTURE PLANNING GUIDELINES CONT.

- Removal of fast growing native trees directly under electric transmission line conductors within the corridor, and trimming of tree limbs to provide at least twenty feet (20') of clearance from transmission conductors. Stump-sprouting native trees should be cut back to allow the required clearance on the edges of the corridor but to also allow re-sprouting to shrub form. Non-native trees – such as Chinese Tallow and Chinaberry – should be removed when encountered.

- Trimming of trees or limbs to provide at least six feet (6') of clearance from electric distribution conductors for span lengths up to two hundred feet (200'). If span lengths exceed two hundred feet (200'), an additional one foot (1') of clearance will be required for each one hundred fifty feet (150') length.

4. All trees and limbs cleared from the corridors shall be shredded, chopped, or hauled from the site.

- Measures to prevent the spread of oak wilt must be followed at all times. This includes disinfecting equipment and painting wounds on oak trees immediately after cutting.

- With approval of the CCS, trees and limbs or shredded mulch may be left in piles outside the corridor for use in remediation projects.

- Special handling for oak trees exhibiting oak wilt will be necessary.

5. Sedimentation control measures will be installed and maintained in accordance with the rules and regulations of the City of Austin, LCRA, Travis County or Texas Department of Transportation, whichever may apply.

6. All excavated materials requiring disposal shall be removed from the corridor to an approved dump or fill area.

7. Any cleared areas shall be re-vegetated with native grasses, forbs, shrubs, and/or trees to re-stabilize vegetative cover within the approved time period.

8. The CCS and the service providers may develop and agree to clearing guidelines on a site-by-site basis that may modify and/or supplement the guidelines stated above.

Infrastructure Planning: Frequently Asked Questions and Answers

1. What is the Balcones Canyonlands Preserve (BCP)?
   Answer: The BCP is a system of preserves that exists as a multi-agency conservation effort operating under a regional "10(a)" permit issued under the Endangered Species Act by the U.S. Fish & Wildlife Service (USFWS). The permit was issued jointly to the City of Austin and Travis County in 1996, though several other organizations (including LCRA, The Nature Conservancy, Travis Audubon Society, and private developments) also own and manage land dedicated to the BCP. Ultimately, the goal is to set aside 30,428 acres in western Travis County as habitat for eight endangered species: the Golden-cheeked Warbler (GCWA), Black-capped Vireo (BCVI), and six karst invertebrates. In addition, the preserves are designed to protect 27 species of concern, including 25 karst invertebrates and two plants. Please see the following websites for more information about the BCP: www.balconescanyonlands.org

2. What is the difference between the Balcones Canyonlands Conservation Plan (BCCP) and the BCP?
   Answer: While the BCP is the more visible side of the regional effort to conserve endangered species and their habitat, the BCCP is the habitat conservation plan that established the preserve system and how it would be funded and organized. This plan serves as the basis for the federal permit. The BCCP was created to assist Travis County landowners in complying with the requirements of the Endangered Species Act. The BCCP is a voluntary, streamlined alternative to obtaining an "incidental take" or "10(a)" permit from the USFWS. The BCCP strikes a balance between community demands for growth and economic development with federal law by protecting over 30,000 acres to offset habitat impacts within Travis County.

3. Who oversees the infrastructure program for the BCCP, and where do I find out information about what is required of infrastructure service providers?
   Answer: The City of Austin BCP manages the infrastructure program. The City of Austin BCP is part of the Wildland Conservation Division of the Austin Water Utility. For more information on the infrastructure process, contact the City of Austin's BCP office (see Land Manager Contact list at the front of this booklet; flowchart and other information in this booklet).

4. What is the difference between infrastructure permits and participation certificates?
   Answer: The infrastructure program covers roadways, utilities, and other capital improvement projects throughout the permit area and is managed by the City of Austin. Participation Certificates cover residential and commercial developments and are issued by Travis County. Infrastructure service providers who are not signatories of the BCCP may also purchase Participation Certificates as mitigation for infrastructure projects. Fees generated through the Participation Certificate program are used to assist with BCP land acquisition.

5. Where is the BCCP permit area?
   Answer: A map of the BCCP permit area is included in this booklet. It is limited to western Travis County and generally includes areas west of the MoPac Rail Line, but not areas to the east of this line. It also does not include the area within the Balcones Canyonlands National Wildlife Refuge.

6. What is "Appendix B"?
   Answer: Appendix B is the infrastructure management plan appended to the BCCP that defines infrastructure corridors within the BCP acquisition boundary and outlines the infrastructure process inside and outside of the BCP.

7. What are some examples of infrastructure?
   Answer: Roads and electric, gas, telephone, cable, water, and wastewater lines.

8. Why is infrastructure planning so important to the BCP?
   Answer: Infrastructure planning is critical to avoiding and minimizing further endangered species habitat loss and fragmentation in the BCP. Fragmentation and edge effects reduce the quality of the habitat needed for successful reproduction. Because the BCP has been designed to mitigate habitat loss outside of the preserves, protection of the remaining habitat is essential.

Infrastructure Planning: Frequently Asked Questions and Answers

9. Have existing corridors outside the BCP but within the BCCP permit area been mitigated through the BCCP?
   Answer: No. "Take" is only covered for activities within approved infrastructure corridors inside the BCP. For all other infrastructure projects, a BCCP Infrastructure Project – Habitat Assessment Application should be completed and submitted to the BCCP Coordinating Committee Secretary for a determination of whether mitigation is necessary.

10. How do I determine whether mitigation is required for my project? How long will it take to obtain a determination for my project? What will I receive from the City of Austin BCP?
    Answer: First determine whether your project is within the BCCP permit area. If so, complete and submit a BCCP Infrastructure Project Habitat Assessment Application to the City of Austin BCP, who will determine whether mitigation is necessary. Typically the review process takes 7-30 days, depending on the completeness of the application and City of Austin BCP staff workload. The City of Austin BCP will provide a letter stating whether mitigation is needed, and if so, the acreage of the impacted area for each species (GCWA, BCVI, and/or karst invertebrates). The letter will also provide general recommendations to minimize species impacts and, for areas within the BCP, identify the BCP landowner(s). Examples of letters provided to non-signatories to the BCP and BCP managing partners are included in this booklet.

11. What is the infrastructure process for non-signatories to the BCP (private utilities)? For BCP managing partners?
    Answer: Both begin the process by submitting a BCCP Infrastructure Project Habitat Assessment Application to the City of Austin BCP. Once the City of Austin BCP has made a mitigation determination, non-BCP signatories may purchase Participation Certificates or work with USFWS to address mitigation needs. BCP managing partners do not have to pay fees but instead deduct credits from their mitigation land banks. For new construction within approved infrastructure corridors, BCP managing partners must show as part of the application that their new construction projects have been mitigated (mitigation bank).

12. How are mitigation bank activities accounted for? How much is left?
    Answer: The City of Austin BCP tracks the mitigation deductions for each BCP managing partner through the infrastructure process and reports the credits and deductions each year in an annual report to USFWS. .

13. For BCP managing partners, are mitigation credits required for maintenance work or just new projects? For example, would LCRA use credits for their preserves to mitigate for clearing for maintenance of infrastructure or just for new construction projects?
    Answer: Typically, no additional mitigation is required for routine maintenance within approved corridors in the preserves. However, if an approved infrastructure corridor hasn't been cleared and habitat has grown back, mitigation will need to be re-assessed.

Infrastructure Planning: Frequently Asked Questions and Answers

14. What constitutes emergency maintenance? How are emergencies within the BCP handled?
Answer: Emergencies include threats to public health and safety, including structural, facility, or equipment problems that threaten reliability or safety. In the event of an emergency, act immediately to address the needs. To minimize impacts to the species and their habitats, efforts should be made to contact the BCCP Coordinating Committee Secretary (Willy Conrad, 512-972-1661) for advice and guidance during emergency maintenance work. Within 5 days of completing the work, provide written notification describing the emergency maintenance work to the Coordinating Committee Secretary. The infrastructure provider should also contact the BCP landowner(s) during or immediately following the emergency to discuss what occurred.

15. What is "pre-approved maintenance"?
Answer: Where the infrastructure provider has worked with the City of Austin BCP and the BCP landowner(s) to define and secure pre-approval for routine operation and maintenance activities within an approved corridor (within the BCP). Where such maintenance activities are repetitive, mutually agreeable schedules can be established. The benefit of having "pre-approved" maintenance is negating the need for repeated project reviews.

16. What is "scheduled maintenance"?
Answer: Where the infrastructure provider notifies the City of Austin BCP and the BCP landowner(s) in advance of any maintenance activities not covered under "pre-approved maintenance" or emergency maintenance. This type of scheduled work could consist of major facility replacement, repair and maintenance, installation of cross and driveway culverts, grading and re-shaping of ditches, and clearing of right-of-way. Notification is in the form of a written plan or application, which must be approved by the City of Austin BCP and BCP landowner(s) for each maintenance project.

17. What measures can be implemented during maintenance or construction to protect the GCWA and BCVI?
Answer: This will be discussed during the application process with City of Austin BCP staff. For corridors within the preserves, infrastructure service providers will also need to work with the BCP landowner. Recommendations typically include maintaining closed canopy woodlands to minimize fragmentation; consolidating access routes; leaving native shrubs and grasses; minimal and strategic pruning; removal of non-native trees; measures to prevent the spread of oak wilt; measures to control erosion and sedimentation; revegetation with appropriate native plants; prohibiting the use of herbicides and pesticides; and avoiding the critical nesting season (March 1 – August 31).

18. What are the dates to avoid when working within the BCP (unless in an emergency)?
Answer: March 1 – August 31 (GCWA and BCVI nesting season).

19. What design/construction-related activities (i.e. survey, geotech investigation, etc) can be performed on BCP properties during GCWA/BCVI breeding season?
Answer: Very little, so planning ahead is critical. Emergencies are understood to be special situations. Activities that could have been conducted outside of the GCWA/BCVI breeding season but were delayed due to poor planning are <u>not</u> considered to be emergencies.

20. Why is implementing measures to prevent oak wilt so important?
Answer: Oaks provide critical nesting and feeding sites for both the GCWA and BCVI. The loss of trees due to oak wilt can be extensive and devastating, and there is no cure. Trenching in an effort to contain infected areas is expensive and not fully effective in preventing further spread. Thus, the only way to avoid the further spread or introduction of oak wilt is to ensure preventative measures are implemented.

21. What measures can be implemented during maintenance or construction to protect karst species?
Answer: This will be discussed during the application process with City of Austin BCP staff. For approved corridors within the BCP, infrastructure service providers will also need to work with the BCP landowner(s). Protective measures may include ceasing work (such as drilling holes) if a void is encountered and contacting USFWS and BCP staff; avoiding driving/crossing sensitive areas; erosion and sediment control; maintaining surface vegetation; minimizing soil disturbance; and prohibiting the use of chemicals, including herbicides and pesticides.

Infrastructure Planning: Frequently Asked Questions and Answers

22. Some erosion controls such as silt fences may be more destructive and less appropriate than more recent alternatives such as mulch berms. Could these alternatives be used instead of standard temporary controls?
Answer: This should be discussed during the application process with the City of Austin's BCP and the BCP landowner(s). Typically, sedimentation control measures are installed and maintained in accordance with the rules and regulations of the City of Austin, LCRA, Travis County or Texas Department of Transportation, whichever may apply.

23. Should all brush be removed or shredded and mulched on site? If so, how thick can the mulch be?
Answer: This will be site-specific and should be discussed with City of Austin BCP staff and the BCP landowner(s). Appendix B states that brush should be hauled off site. Brush piles are not allowed because they pose a fire hazard and provide habitat for avian nest predators. However, strategic placement of tree limbs on slopes may be beneficial to help control erosion; special handling for oak trees exhibiting oak wilt will be necessary. Chipping and shredding brush may also be recommended to provide mulch around plants and over bare soil. Typically, mulch should be spread uniformly about an inch thick over bare ground.

24. Are there BCP management activities we should be aware of?
Answer: Yes. The BCP conducts deer hunting during the fall and winter on several tracts within the BCP each year. The hunts typically begin November 1 (the meat is donated to the Hunters for the Hungry program, a statewide effort to receive donated meat and distribute it to food banks around the state. The BCP is the largest contributor in Texas to this program). Always call ahead to check if this land management activity is occurring on the property where an infrastructure crew needs access.

25. Why is the BCP acquisition goal only 30,428 acres? Why not try for more if possible?
Answer: The BCCP established a minimum of 30,428 acres which was arrived at through a combination of political and biological discussions. The requirement of the federal permit is the minimum of what is needed, not the amount that was originally recommended. In the 1980s and 1990s, the Biological Advisory Team assembled to contribute to the habitat conservation planning effort initially proposed 120,000 – 150,000 acres, which represents one of every four acres west of MoPac. The USFWS stepped up to assist with protection by establishing the Balcones Canyonlands National Wildlife Refuge northwest of Austin with the goal of protecting 46,000 acres.

26. Does BCCP take donations to purchase more acres for the preserve?
Answer: Certainly! Acquisition is still continuing, and any efforts to assist the BCP managing partners would be most welcome. Travis County is currently taking the lead in completing the BCP acquisitions and is trying to leverage things like conservation easements and federal grants to acquire remaining acreage. Anyone with a new idea about funding or an interest in donating funds is welcome to call Travis County BCP staff (see Land Manager Contact list at the front of this booklet).

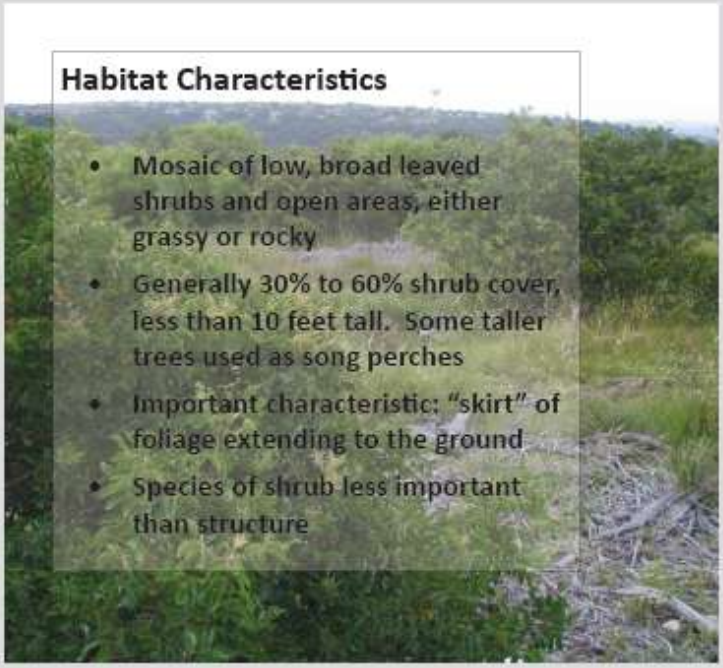
27. Is there any chance the populations of GCWA and BCVI could stabilize and reproduce to the point they would be taken off the Endangered Species list?
Answer: Regardless of the status of the GCWA and BCVI, the BCCP requires that their habitat within the BCP be protected in perpetuity. When reviewing the status of these species, the USFWS would take the success and effectiveness of the BCP into consideration.

Golden-cheeked Warbler (*Setophaga chysoparia*)

Golden-cheeked Warbler (*Setophaga chysoparia*)

What do they look like?	A 4 to 5 inch long songbird with dark gray to black upperparts and white underparts with thick black streaks on the sides. The head has a black cap and throat, bright yellow cheeks, and a dark eye-line. Dark wings with two white wingbars complete the brightly colored male, while the female is duller with olive-green upperparts, a streaked cap, and a generally white throat.
What do they sound like?	Both males and females can 'chip', but only the males can sing. They have two songs: an 'A' song that sounds like *'tweah-tweah-tweah-TWEE-sy! (ending on a high note)*, used early in the nesting season to define their territory and possibly aid in pair formation, and a 'B' song that sounds like 'b*zzzz layzee dayzee' (ending on a high note)* used later in the nesting season for territorial defense.
When are they here?	They arrive in Central Texas in early March, from their wintering grounds in Central America (pine-oak highlands in Guatemala, Honduras, Nicaragua, and southern Mexico). They only breed in fewer than 40 counties with mixed juniper-oak woodlands in the Edwards Plateau region, so each one is a native Texan! By late July they begin the return trip to their winter home, although a few may linger into mid-August.
What do they eat?	They are insect-eating birds, foraging through the leaves and bark of oaks and other trees, gleaning them of a multitude of caterpillars, spiders, beetles, and other small insects.
Where do they nest?	They are totally dependent on mixed woodlands of oak and stands of old-growth Ashe juniper for nesting habitat. This unique habitat provides them with long strips of peeling bark from the mature juniper trees and they always use them to camouflage their cup-shaped nests, which they build with materials such as feathers, lichens, leaves, and grass, held together with spider silk. The nest site is chosen by the female, typically in the fork of a tree branch in the upper third of a tree, and she usually builds it in 4 days.
How fast do they reproduce?	The female lays 3-4 eggs (creamy white with fine brown flecks) and incubates them for roughly 12 days. The male stays close by, defending the territory. When they hatch, the young are immobile, downless, and have closed eyes.
What kind of parents are they?	Both the male and female feed the hatchlings, and they fledge after about 9 days. The parents often divide the fledged group, providing care for 4 to 7 weeks.
How long do they live?	On average, their lifespan is estimated to be 5-6 years.
How are they studied?	Each spring, biologists and trained volunteers conduct territory surveys on the BCP tracts. Biologists began banding them in 2009, and since then over 350 individuals have been banded. Banding allows individuals to be re-sighted and thereby provide information regarding the number and size of territories, as well as loyalty to specific territories. When in hand, biologists can determine their approximate age, and begin to understand how age affects habitat choice, mating and nesting success, migratory return rates, and overall survival rates.
How many are there?	Biologists estimate about 1,000 pairs in the BCP tracts, which is only a subset of their entire breeding range. One population estimate in 2005 (by BirdLife International) stated 9,600 to 32,000 individuals in total.
Why are they endangered?	They are habitat specialists, and destruction and fragmentation of their prime habitat is the major environmental threat. The most significant factor is the widespread removal of Ashe junipers in the south central region of Texas. Over the 20 year span between the early 1970s and 1990s, coincident with urbanization removing 50 percent of suitable habitat, their population declined dramatically from more than 15,000 birds to less than 5,000, prompting it to be listed as an endangered species in 1990 by the U.S. Fish and Wildlife Service.
Why are they important?	Preservation of endangered species is important and practical for a number of reasons: (1) organisms other than humans have intrinsic moral and ethical value, (2) many plants and animals have an established economic value (birders from all over the world make the pilgrimage to see this special songbird!), and (3) most species play a critical role in maintaining the health and integrity of their ecosystem. The link between human enterprise and species extinction has existed for almost 100,000 years, and accelerating habitat loss and extinction rates are contributing to a biodiversity crisis.

Black-capped Vireo (Vireo atricapilla)



Habitat Characteristics

- Mosaic of low, broad leaved shrubs and open areas, either grassy or rocky
- Generally 30% to 60% shrub cover, less than 10 feet tall. Some taller trees used as song perches
- Important characteristic: "skirt" of foliage extending to the ground
- Species of shrub less important than structure

Species Characteristics

- Listed as endangered in 1987
- Prefers shrubby habitat
- Typically nests 3-5 feet above ground
- Migrates to the western coast of Mexico for fall & winter
- Eats insects
- Breeds from April through August in Central Texas, Oklahoma, and northern Mexico

While in the nest, and until they learn to fly well, young birds are very vulnerable in their low habitat (less than 6 feet above the ground).

For more information, visit www.balconescayonlands.org

Golden-Cheeked Warbler and Black-Capped Vireo

	golden-cheeked warbler	black-capped vireo
Appearance	4-5 inches long. Males have yellow feathers on "cheeks", with a black stripe through the eye, a black throat, and cap on the head with a white belly. The female resembles the male, but with less striking colors.	4.5 inches long. Mature males have olive green on back, white on belly, and a yellow-green on their flank above their leg. Species name comes from the black color on the top & sides of head. The female coloring is duller than the male with a grey head in place of black.
Habitat	Oak-juniper woodland (closed-canopy stands of mature Ashe juniper mixed with species of oak such as live oak, Spanish oak, and shin oak)	Low scrub, often on poor/eroded soils. In central Texas, this type of habitat is often a result of regrowth after the occurrence of clearing, overgrazing, or fire.
Diet	Caterpillars, spiders, beetles, & other insects	Adult insects, insect larvae, & spiders
Threats	Habitat loss & fragmentation due to urbanization, brown-headed cowbirds & edge predators such as domestic and feral cats, rat snakes, squirrels, and jays.	Brood parasitism by brown-headed cowbirds, loss of habitat and fragmentation from clearing, over browsing by deer/domestic animals, fire suppression, natural succession (changing preferred habitat into woodland), & edge predators such as domestic and feral cats, rat snakes, squirrels, and jays.
Nesting behavior/ materials	Nest is open cup woven of strips of juniper bark & insect silk, lined with grass, hair or down and placed in small tree. Mature juniper trees (over 20 years old) are vital because they have shredding bark that is used as nest building material.	Nest placement in trees/shrubs only a few feet from the ground. Open hanging cup made of leaves, grasses, plants, and animal silk, lined with grass.
Migration	Spends winters in Central America and southern Mexico and returns to Central Texas in March.	Spends winters on the western coast of Mexico and March/April to August/September in Texas
Breeding range	Central Texas only, in spring & summer	Central and southwest Texas. May still breed in small parts of OK and Mexico. Breeding season is April to August.
Incubation/ nesting	Lay three to five eggs (one per day on consecutive days), incubation for 11-12 days, fledging around 9 days after hatching.	Four eggs are usually laid. Incubation is 14 to 17 days, and young fledge 9 to 11 days after hatching. Usually nests more than once a year in a new nest each time.
Behavior	Forages by gleaning from foliage & branches and sometimes hangs to glean from undersides of leaves.	Gleans from leaves, twigs, & branches. Sometimes hangs upside down or hovers while feeding.
Endangered Listing Date	1990	1987

Karst Invertebrates (six species)

Five of the six endangered karst invertebrates.

Tooth Cave pseudoscorpion
(*Tartarocreagris texana*)

Tooth Cave Ground Beetle
(*Rhadine persephone*)

Bone Cave harvestman
(*Texella reyesi*)

Kretschmarr Cave mold beetle
(*Texamaurops reddelli*)

Tooth Cave spider
(Neoleptoneta myopica)

Bee Creek Cave harvestman
(Texella reddelli)

For more information, visit www.blaconescanyonlands.org

Karst Invertebrates (six species)

Species Characteristics

- All six species were listed as endangered in 1988
- Troglobitic - spend entire life underground
- Some only known from a handful of caves, but not all caves have been surveyed
- Some are predators; others feed on dead organic matter

Habitat Characteristics

- Underground, but still reliant on surface for nutrients
- Karst features may be large, or quite small
- Stable humidity and temperature
- Rely on cave crickets and other animals to bring in nutrients from surface

For more information, visit balconescanyonlands.org

CITY OF AUSTIN
OAK WILT PREVENTION POLICY

1.0 Purpose and Scope

The purpose of this Oak Wilt Prevention Policy is to identify measures that city staff and city-hired contractors and their sub-contractors, who perform the services of removing or trimming trees, will take to prevent the spread of oak wilt.

2.0 Definitions

Oak Wilt Disease: A tree disease caused by the fungus, *Ceratocystis fagacearum*. The fungus infects the vascular system of a tree. The vascular system contains vessels which transport moisture throughout the tree. The vessels of an infected tree effectively become blocked by the infection of the fungus, and cannot transport adequate moisture to sustain a healthy or living tree. In most cases, the end result is tree mortality.

3.0 Prevention Policy

3.1 Prior to beginning field work, all city staff associated with projects involving potential contact with oak trees shall be made aware of the city's official Oak Wilt Policy by receiving and reading a written copy of this policy. Staff receiving a written copy of the policy shall include, but not limited to, project managers, equipment operators responsible for removing or trimming trees, or operators using heavy equipment which could cause wounding of susceptible oaks in the use of the equipment. In addition, individual city departments will provide a written copy of the Oak Wilt Policy to contractors participating in city projects in areas where oak trees are present before initiating field work.

3.2 When possible, city staff and contractors should avoid trimming or pruning Live oaks and Red oaks (Spanish, Shumard, Texas Red, and Blackjack oaks) from Feb 1 to June 30.

3.3 At all times and irrespective of limb size, all cuts and wounds to oak trees shall be dressed immediately using a non-phytotoxic tree wound dressing. Stump cuts and damaged roots (both above and below ground) shall also be dressed.

3.4 Disinfection of pruning tools, saws, and related equipment is mandatory during the trimming or pruning of oak trees. Disinfection of tree removal and trimming equipment shall occur before work begins in a project area, between work in individual oak trees, and again prior to leaving a project area. Acceptable disinfectants include either aerosol disinfectant or a 10 percent bleach-water solution.

*NOTE: Although this policy would require the disinfection of pruning equipment before and between oak trees as a precaution, research does not substantiate disinfection as a means of preventing the transmission of the oak wilt disease.

4.0 Disposal Policy

4.1 Chipping or shredding the wood from infected trees to use as mulch is an acceptable means of recycling the wood. Chipping or shredding allows the wood to dry out quickly, thereby killing the fungus.

4.2 Burning diseased wood is an acceptable means of disposal. Burning diseased logs will kill the fungus, and the fungus will not spread with the smoke.

Created by Chris Dolan, Oak Wilt Arborist
City Arborist Program, PDRD
Revision 04/18/2011

4.3 Logs from diseased Red Oaks, that are not chipped, shredded, or burned shall be disposed of at a landfill.

4.4 Firewood from diseased Red oak trees shall *not* be stored near healthy trees where fungal spores or insects that carry the spores have the potential to spread the fungus to healthy trees. It is recommended to store oak firewood under a sheet of clear plastic, tightly sealing the edges of plastic with soil or bricks. Doing so will prevent any spore carrying beetles from escaping and will solarize and heat the stored firewood to speed the drying process. It is also recommended to use clear plastic, as black plastic will reveal any escape holes to the beetles.

4.5 In situations where diseased Red oak trees are identified and are not accessible for chipping, shredding, or removal, the trunk of the diseased tree should be girdled, and the stem treated with an appropriate herbicide to deaden the tree and hasten the desiccation and drying of the wood below the minimum moisture content that could support the development of fungal spores.

ENERGY • WATER • COMMUNITY SERVICES

Policy – Corporate Environmental
Title: Oak wilt Prevention

1.0 Purpose

The purpose of this Lower Colorado River Authority (LCRA) Oak Wilt Prevention Policy is to document measures that must be implemented to prevent the spread of oak wilt while handling oak trees.

2.0 Definitions

Oak Wilt: A tree disease caused by the fungus, *Ceratocystis fagacearum*. The fungus infects the conductive tissue (xylem) of the tree, which contains vessels that transport moisture throughout the tree. The oak wilt fungus causes the infected tree to produce tylosis. The production of tylosis becomes so significant that the tree can no longer transport water throughout its vascular system. The end result, in most cases, is tree mortality.

3.0 Prevention Policy

3.1 Any person representing LCRA (from here on "LCRA representative") who is involved in field work where oak trees are trimmed, removed, or could be potentially wounded shall receive initial oak wilt training as well as annual refresher training. LCRA representatives required to have training include, but is not limited to, project managers, construction managers, environmental staff, equipment operators, contractors, subcontractors, and volunteers. Training must be received before field work may begin in areas with oak trees. Those working with oak trees shall complete the LCRA Oak Wilt Prevention Report as well. This report will be discussed and distributed during training sessions.

3.2 When possible, oak trees should not be trimmed or pruned between February and June.

3.3 At all times, sterilization of equipment and painting of wounds are mandatory when trimming or pruning susceptible species.

3.4 Sterilization of tree removal and trimming equipment will occur before leaving the project area or between property boundaries and will involve using either aerosol disinfectant or a ten (10) percent bleach-water solution. In addition, tree trimming equipment must be sterilized thoroughly before it is used again.

3.5 Irrespective of limb size, all cuts and wounds must be painted with a wound or latex –based paint or product either approved by a Certified Arborist who has obtained an Oak Wilt Specialist Certification or recommended by the Texas Forest Service. Such painting will include stump-cuts and damaged roots both above and below ground. Damaged roots that are located in a trench/excavation that cannot be accessed safely, as deemed by the Safety Supervisor, do not have to be painted as the safety of the worker precludes painting the damaged root. Because it takes only a few minutes for an open tree wound to attract insects, waiting

to paint until all pruning is accomplished is unacceptable. Wound protection must be applied immediately.

3.6 At a minimum, LCRA representative will seal all wounds (any size) of all oaks trees. However, LCRA representative may elect to seal cuts of all hard wood trees on a case-by-case basis.

4.0 Disposal Policy

4.1 Chipping or shredding the wood from infected trees to use as mulch is an acceptable means of recycling the wood. Chipping or shredding allows the wood to dry out quickly, thereby killing the fungus.

4.2 Burning diseased wood is an acceptable means of disposal. Burning diseased logs kills the oak wilt fungus; in addition, the fungus does not spread with smoke.

4.3 Firewood from diseased trees should not be stored near healthy trees because fungal spores or insects which carry the spores have the potential to spread the fungus. If the brush or logs are to be left for firewood, the LCRA representative must explain to the land owner or land owner's representative that the brush or logs may be infected and warn them of the hazards associated with storage. LCRA representatives may fulfill this landowner notification obligation by providing pertinent information in 4.3 or 4.4 of this policy to the landowner or landowner's representative. Logs over four (4) inches or ten (10) centimeters in diameter at breast height must be girdled (bark removed), as fungal mats have been found on logs of this size and larger after the tree has been felled.

4.4 It is recommended to store oak firewood under a sheet of clear plastic and tightly seal the edges of the plastic with soil or bricks. Doing so will prevent any spore-carrying beetles from escaping. It is also important to use clear plastic, as black plastic will reveal any escape holes to the beetles.

4.5 Unused disinfectants and paints must be recycled or disposed of properly. Material Safety Data Sheets (MSDSs) are required and must be attached to the LCRA Oak Wilt Prevention Report for each paint and disinfectant used.

Approved: _____
Henry Eby, Manager, Environmental Affairs

LCRA Oak Wilt Prevention Report

Oak wilt is a tree disease caused by a fungus which in most cases kills the tree. To help prevent the spread of oak wilt LCRA's Corporate Oak Wilt Policy states that **all wounds made to oak trees must be painted as soon as the wound is created** with a wound or latex-based paint or a product approved by a Certified Arborist who has obtained an Oak Wilt Specialist Certification or as directed by the Texas Forest Service. Sterilization of tree removal and trimming equipment must occur before leaving the project area or between property boundaries and must involve using either aerosol disinfectant or a ten (10) percent bleach-water solution. **Tools must be disinfected between trees if pruning adjacent to oak wilt infested areas.** In addition, trimming equipment must be sterilized thoroughly before it is used again. If mechanical clearing occurs using a device such as a flail mower, one must ensure that stumps are painted.

Please fill out the following report to ensure compliance with LCRA's Oak Wilt policy.

Date	**Project Location** *(e.g. TL #, Substation, Park, etc.)*	**County**	**Land Parcel #** *(if known)*	**Structures** *(if applicable)*	**Type of Paint used** *(attach MSDS)*	**Color of Paint***	**# of Oak Trees Painted**	**Type of Disinfectant Used** *(circle one)*
								Aerosol / 10% bleach solution
								Aerosol / 10% bleach solution
								Aerosol / 10% bleach solution
								Aerosol / 10% bleach solution
								Aerosol / 10% bleach solution
								Aerosol / 10% bleach solution
								Aerosol / 10% bleach solution
								Aerosol / 10% bleach solution

**It is highly recommended that a dark-colored paint (black or brown) be used. Marking and other types of paints that fade easily are not recommended.*

Workers Name (printed):_____Company: _____

Workers Signature: _____ Date: _____

Please return to your LCRA Environmental Representative

Revision Date: August 27, 2009

ENERGY • WATER • COMMUNITY SERVICES

Policy – Corporate Environmental
Title: Oak wilt Prevention

Document Control and Records Maintenance

Version	Date	Author	Change(s) Made
1	June 29, 2006	Jobaid Kabir	Original
2	August 27, 2009	Henry Eby	Updates; LCRA Oak Wilt Prevention Report added to Policy.
3	November 23, 2010	Henry Eby	Updates; inserted language addressing the safety of painting roots while trenching or excavating.

Pictoral Reference for Transmission Right-of-Way Maintenance

R.O.W. MAINTENANCE OUTSIDE OF HABITAT AREA

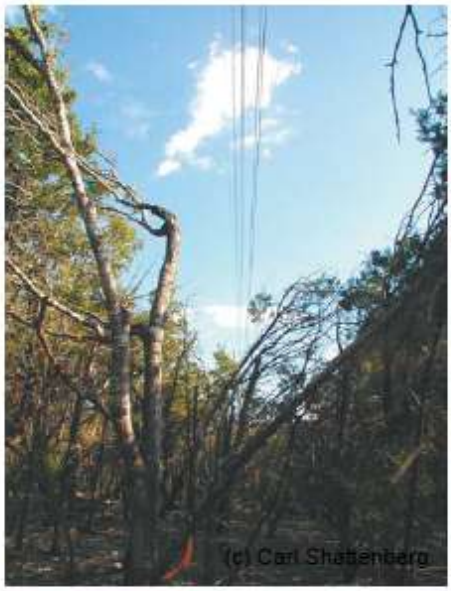
Typically what utility managers consider ideal - wide, open easements, maintained to look like a fairway: mowed, clean and clear.

R.O.W. MAINTENANCE WITHIN HABITAT BUT OUTSIDE BCP PRESERVES

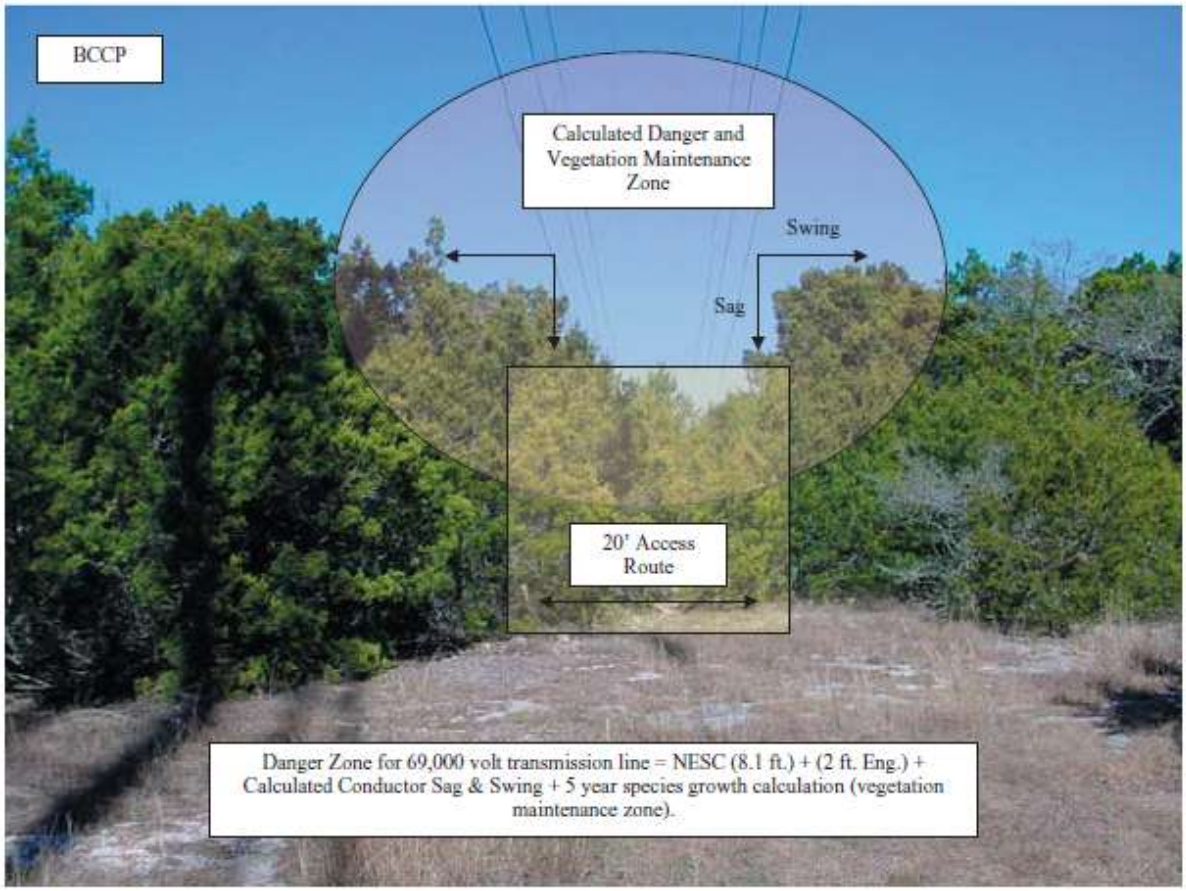
Conserve compatible, low-growing vegetation in right-of-way, and also allow for access to structures.

R.O.W. MAINTENANCE WITHIN BCP PRESERVE

Modified pruning methods in juniper-oak woodland in BCP Preserves.



Erosion Control & Revegetation



Access Routes - Maintain access routes up to 20' wide, with additional width in curves, as needed, to accommodate truck booms. Prune trees to provide closed canopy over the access routes with 14' overhead clearance where possible.

Balcones Canyonlands Conservation Plan

Infrastructure Project - Habitat Assessment Application

Application No. _____

1. **Applicant Information:**

   Applicant Name: _____

   Company or Agency: _____

   Mailing Address: _____

   City: _____ State: _____ Zip Code: _____

   Contact Name: _____ Contact Title: _____

   Daytime Phone # (____) ____-_____ Fax # (____) ____-_____

   Email address: _____

2. **Landowner:** _____

   Contact Name and Department/Division: _____

   Mailing Address: _____

   City: _____ State: _____ Zip Code: _____

3. **Project Name:** _____

   Applicant's Project Number (if applicable): _____

   Street Address or Location Description: _____

   Project Manager: _____

   Phone (___)____-_____ Email address: _____

4. **Brief Project Description:** _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

5. **Description of Vegetation Disturbance:** _____

   _____

   _____

   _____

   _____

Application No. _____

6. **Dimensions of Disturbed Areas (length, width, total square feet): _____**
   _____
   _____

7. **Total acreage of disturbed area:_____**

8. **Attach to this application:**

   1. Regional map showing location of project
   2. Site plan maps
   3. Access route map, including length and width of route and type of equipment to be used with locations marked (new construction projects only)
   4. Map delineating disturbed areas (show source of #6 and #7)
   5. Copies of any City of Austin environmental permits, if applicable
   6. On-site, single point project contact (include phone and email address)

9. Has the U.S. Fish and Wildlife Service (USFWS) determined mitigation requirements or potential take of listed species for this project or a portion thereof?***YES____ or NO____**

   ***If YES,** attach a copy of the calculations and any related correspondence from USFWS.

ADDITIONAL COMMENTS:

_____

_____

_____

I realize that failure to supply complete information with this application may delay processing. I understand that a copy of this application may be provided to the Austin office of the U.S. Fish and Wildlife Service, and that habitat assessments are valid for six (6) months after completion. I certify that all statements on this application are true and correct to the best of my knowledge.

_____ _____

SIGNATURE of Person Responsible for Submitting Application **DATE Signed**

_____ _____

PRINTED NAME of Person Signing **Company or Agency**

Call or fax directly to: Kimberlee Harvey 512/972-1686 or Fax 972-1665

Submit applications to: **BCP Program - Infrastructure**
Wildland Conservation Division, Reicher Ranch
Austin Water Utility
3621 South FM 620 Rd.
Austin, Texas 78738
Attn: William Conrad
City of Austin Wildland Conservation Division Manager

Michael Wallace
Transportation and Natural Resources
411 West 13th Street Austin, Texas 78767

Re: Improvements to Crosswind Dr. and Tradewind Dr. (BCCP Application # Travis County 09-006)

Dear Mr. Wallace:
Thank you for your application on behalf of Travis County regarding the proposed improvements to 1.5 miles of Crosswind Drive and Tradewind Drive, from the intersection with Beek Road to the second intersection (North) of Tradewind Road. The proposed project will consist of repaving and spot drainage improvements. All proposed work will be done within the existing ROW.

The project site lies outside of the preserve acquisition boundary for the Balcones Canyonlands Preserve. Based upon a review of the project plans submitted with the application, this project is eligible to participate in the regional Balcones Canyonlands Section 10 (a) permit. Participation under the BCCP permit will cover incidental take of endangered species habitat, particularly golden-cheeked warbler habitat that the project might impact.

Based on current BCCP habitat zone maps and the calculations provided with the application, .12 acres of Zone 2 golden-cheeked warbler habitat would be cleared of vegetation. No sensitive karst features would be affected by this project.

Because this is a Travis County infrastructure project, mitigation needs are provided from the mitigation bank balance maintained by Travis County. The vegetation removal would occur in Zone 2 golden-cheeked warbler habitat. For the clearing of .12 acres of Zone 2 habitat, the mitigation assessed for BCCP partners is ½ acre of Zone 1 mitigation for every 1 acre of Zone 2 take. All mitigation acreages for infrastructure projects are rounded up to the next 0.1-acre increment under calculation procedures approved by the Balcones Canyonlands Coordinating Committee. Therefore, a deduction of .1 acres of Zone 1 warbler habitat mitigation will be made to the Travis County current balance for the proposed project due to the calculations approved by the Balcones Canyonlands Coordinating Committee.

As stated in your application, clearing activities will occur within areas designated as Zone 2. When participating under the BCCP permit, there are important requirements that relate to site clearing and subsequent construction activity that must be observed. Clearing of woody vegetation should be completed during the months from September through February. After March 1, such work must cease since golden-cheeked warblers will have returned to the area to nest. During the period from March through August, vegetation removal can be done only after a bird-monitoring program using USFWS protocols demonstrates that no nesting birds are located within 300 feet of the project bounds. Construction may proceed beyond the deadline once the natural vegetation has been removed in accordance with USFWS protocol.

If you have any further questions regarding this assessment or encounter any problems, please feel free to call me at (512) 972-1662.

Sincerely,

William A. Conrad
BCCP Secretary

Re: Slaughter Lane to Highway 290 (S. Mo-Pac Expressway)
BCCP Application # xxxxx

Dear Mr. Doe:

Thank you for your application on behalf of the Utility Service for the Slaughter to Highway 290 (S Mo-Pac Expressway) Pipeline Construction. The proposed project encompasses the construction of a gas line to improve gas distribution service to areas located in western Travis County, Texas. The pipeline will be installed in a new right-of –way (ROW) within the existing MoPac (ROW) from Slaughter Lane to Highway 290.

The project site lies outside of the preserve acquisition boundary for the Balcones Canyonlands Preserve (BCP). Based upon a review of the project plans submitted with the application, this project is eligible to participate in the regional Balcones Canyonlands Section 10(a) permit. Participation under the BCCP permit will cover incidental take of endangered species habitat, particularly golden-cheeked warbler, black-capped vireo, and karst invertebrate habitats that the proposed project might impact.

As described in the Habitat Assessment Application for this project, the construction footprint will be 18,480 linear feet x 30 feet wide = 554,400 sq ft, totaling approximately 12.73 acres. All trenching, ditching, and boring associated with the proposed project will occur within the MoPac ROW. The proposed pipeline cuts across portions of Zone 2, unconfirmed warbler habitat, and Zone 3, not known to be warbler habitat. However, since all work will be done within the existing MoPac ROW and since all woody vegetation has been cleared from this area, it is anticipated that no warbler habitat will be impacted. Therefore, no fees will be assessed. The proposed pipeline will cut across 15,000 linear feet of karst zones 1 and 2. No designated BCCP caves will be affected by the proposed action. However, three protected BCCP caves (District Park, Whirlpool, and Get Down Cave) are in the immediate vicinity of the proposed pipeline and the Project Manager and Construction Manager will need to be aware of the sensitivity of trenching through karst limestone.

The mitigation requirements for the pipeline project impacting habitat are 10.4 acres of Karst Zone habitat (15,000 linear feet X 30 feet wide = 450,000 sq ft =10.33 acres). All mitigation acreages for infrastructure project are rounded to the next 0.1 acre increment under the calculation procedures approved by the Balcones Canyonlands Coordinating Committee. The fee for karst mitigation is $750/acre. At current Balcones Canyonlands Conservation Plan (BCCP) participation rates, coverage for this project would amount to $7,800, payable to the BCCP. These mitigation fees are used to purchase additional habitat lands within the Balcones Canyonlands Preserve for the long-term protection of the listed endangered species and other species of concern.

I am passing this habitat assessment along to Travis County for preparation of a participation certificate. Travis County will provide the necessary participation agreements for your signature and issue the certificate upon receipt of the participation fee. Your contact for this phase of the application process is Michael Wallace, Travis County Transportation and Natural Resources, at 512-854-7215.

Following the above requirement, this letter constitutes your authorization to proceed through participation in the regional Section 10(a) permit. No clearing of vegetation in or within 300 feet of occupied warbler or vireo habitat is allowed nor is it authorized under this letter of habitat assessment during the birds' breeding/nesting season (March 1 – September 30). Additionally, participation by subsurface excavation projects near karst habitats, such as this project, should note that when construction activity uncovers new caves or significant karst features, such work must cease and the local USFWS Ecological Services office notified to check the cave for endangered species. Internal City assistance during such discoveries may also be obtained from the Watershed Protection and Development Review Department (974-2781 or 974-1916) or this office. It should be noted that the applicant has agreed to follow the City of Austin's specifications for void mitigation during trenching operation.

If you have any further questions regarding this assessment or encounter any problems, please feel free to call me at (512) 972-1660.

Sincerely,

William A. Conrad

Wildfire Prevention Plan Template

Location of Work:

BCP: ____

WQPL: ____

Tract name(s):_____

Nearest gate address:_____

GPS Coordinates:_____ _____

Date(s): _____

Type of work:

_____
_____
_____
_____
_____

Specifics of Work:

_____
_____
_____
_____
_____
_____

Number of personnel: _____

Fire prevention/ suppression equipment on site: _____

Fire prevention preparation: _____

Fire department jurisdiction:_____

Spotter: During active high fire danger periods a member of the work group will be designated as a spotter to observe and report potential wildfire ignitions. During hot work such as welding, or high risk activities such as operation of vehicles or power equipment in heavy fuels the spotter will be dedicated only to that responsibility.

Name of designated spotter: _____

Emergency contact: An emergency contact will be the designated point of contact who will be available in the event Wildland Conservation Division Management needs to contact a project team in the field.

Name of emergency contact: _____

Best method of contact: #_____

Personnel:

Supervisor: _____

Phone: _____

Project Manager WCD: _____

Phone: _____

Fire Manager: **Luke Ball (cell 512-940-3452), desk 512-972-1683)**

WQPL Manager: **Kevin Thuesen (cell 512-632-8064), desk 512-972-1666)**

BCP Manager: **Sherri Kuhl (cell 512-299-6775), desk 512-972-1664)**

WCD Manager: **Willy Conrad (cell 512-826-4132), desk 512-972-1661)**

BCCP PREAPPROVED INFRASTRUCTURE PLAN APPLICATION

VEGETATION MAINTENANCE

Infrastructure Corridor:

Landowner/managing entity:

Infrastructure Owner:

Infrastructure Description

Type (electric, water, wastewater, other):

Length: **Width:**

Description (Voltage, pipe size, other):

GIS Reference information:

Segment*	Danger Zone**	Maximum Vegetation Height**	Maintenance Frequency (years)	Date Last Maintained	Trees to Remove***	Describe maintenance methodology****

*Expand the table on this form as needed to include all segments. Segments will be defined between each tower or valve.

** Height above ground surface

***List by species and number

****Manual or mechanical (if mechanical give detailed description of equipment and methodology.

All vegetation maintenance plans must be linked to a GIS Shape file that is either in the BCCP infrastructure system or is submitted with the application. See the BCCP Infrastructure Guidelines for details on formats and required information.