

City of Austin BCP Projects
BCCP Coordinating Committee Meeting
January 1, 2014-March 15, 2014

Program Administration

Personnel

- We hired four seasonal biologists on March 3, 2014, to help with avian monitoring and habitat restoration.

Permits

- The BCP annual report was submitted to the U.S. Fish and Wildlife Service in January.
- City BCP staff has issued nine BCP research permits to conduct research on the BCP in 2014. 2014 projects include quantification of soil bacteria and fungi (soil metagenomics), ant diversity and abundance, cave research and restoration, and Jollyville Plateau salamander monitoring and research, water quality and quantity monitoring for WTP4, and riparian restoration.

Biological Monitoring

Karst

- Tawny crazy ants (TCAs) were first observed negatively impacting cave fauna in Whirlpool Cave in June 2013, and it is likely that they have invaded McNeil Bat Cave as well. City and Travis County staff are working with the TCMA/Whirlpool Cave manager on monitoring impacts to cave fauna. Staff conducts cave faunal surveys quarterly and continues to observe thousands of ants in the upper level of the cave; the only other life observed were a few troglomorphic spiders on the ceiling of the cave. Staff noticed that TCA's were still quite active in the cave during the winter survey, also observed one winged alate, a sign that TCA's are using the cave as a nest site. We anticipate that this new invader will effectively eradicate most of the cave fauna from this cave and any other cave they invade. City and Travis County BCP staffs are currently working closely with Ed LeBrun (UT Fire Ant Lab) to investigate possible methods of treating TCAs within the cave cricket foraging area. UT, Travis County, and City BCP staff applied for a section 6 grant (UT/ Ed LeBrun as the lead applicant) to help pay for the research. One more note on TCAs: after the recent heavy rains which caused the branch of Williamson Creek/ Whirlpool Cave area to flood, it's highly likely that the flood waters have washed TCAs much further downstream, thus infecting a much larger area of South Austin. (Ongoing)
- Conducting cave faunal surveys and cave cricket exit counts. (Ongoing)
- Monitoring cave conditions, removing trash, and treating for red-imported fire ants. Ongoing
- The Watershed Protection Department (WPD)-led Davis Lane Hydrological study is in the final stages and will lead to water quality improvement CIP projects that will directly improve water quality to Maple Run Cave. WPD hydrogeologist Nico Hauwert will conduct one last dye trace at hideout sink (cave located on Goat cave karst preserve). (Ongoing)
- BCP Staff is continuing to assist Nico Hauwert and the WPD with the Blowing Sink CEF stabilization CIP project. Several major recharge features/caves are unstable, leading to large amounts of sediment washing into the aquifer. The project will stabilize these features, thus improving water quality to Barton Springs. This project is actively proceeding forward. (Ongoing)
- In an effort to educate the public about the importance of caves and cave fauna, Nico Hauwert initiated an effort to find local non-BCP caves that would be appropriate for educational purposes. Staff and volunteers are currently excavating several karst features. (Ongoing)
- WPD dig team is currently excavating 2 blowing sink caves which were impacted by the October floods. WP is in the initial stages of conducting a hydrological study at Flintridge cave to determine the subsurface drainage in an effort to determine what impacts the proposed SH 45 will have on the cave.
- Restoration and monitoring efforts have begun at 2 endangered species caves located in the courtyard at McNeil High. Nico Hauwert is leading the restoration effort along with help from FWS, City and Travis County BCP staff. Travis County and City BCP staffs are currently conducting cave faunal surveys with the goal of including student participation for long term

monitoring and potential research projects that will benefit the listed species. Viv Loftin is currently working on a restoration plan. City staff will provide plants for this project. (Ongoing)

- Travis County and City BCP and WPD staff met with COA Public Works staff on October 3rd regarding a proposed trail that would be built within the cave cricket foraging area of Stark's North Mine. Staff recommended that Public Works contract out a cave cricket foraging study to determine if Walnut Creek acts as a barrier to cave cricket foraging and if so, then the trail would not impact the cave. Nico Hauwert agreed to resurvey the cave, and to come up with an estimate on the size of the sub-surface drainage catchment area.
- City and Travis County staff met with TXDOT, CTRMA as well as other local stakeholders regarding the proposed construction of SH45, its impacts on Flintridge cave as well as other karst features in the area. The meeting focused primarily on ideas on how to minimize damage to these features. (Ongoing)
- LCRA contracted with Zara Environmental to conduct hydrological studies at New Comanche Trail cave and Geode cave in an effort to determine the subsurface drainage for those 2 caves to see if the new T-160 line upgrade could potentially impact those caves.

Golden-Cheeked Warbler (GCWA)

- USFS Project: Interlocal Agreement with the US Forest Service (Dr. Frank Thompson, Jennifer Reidy) to provide GCWA Population Viability and Habitat Suitability modeling within the BCP.
 - 5-year study, focuses on four primary questions:
 - What is the absolute abundance of the GCWA on the BCP and on individual macrosites?
 - How do demographics (e.g. density, productivity, survival) vary with landscape and habitat factors?
 - How viable are these populations?
 - How do various management scenarios influence population viability?
 - Over 40 volunteers will be assisting with re-sighting color-banded GCWAs adjacent to intensive study plots in 2014. A training session was held on February 22 for new volunteers.
 - On March 7, Jennifer Reidy and Frank Thompson provided an update of the data analyses conducted to date, including preliminary results from the population viability model. Findings continue to support the importance of protecting large blocks of woodlands with minimal edge.
 - Jennifer Reidy has received permission from USFWS, TPWD, and USGS Bird Banding Lab to band GCWA nestlings during the 2014 field season.
- Vickery Method: The U.S. Fish and Wildlife Service provided funding for the U.S. Forest Service to compare results of less intensive monitoring (spot mapping and productivity surveys without color banding or nest finding) with more intensive data collection. USFS has hired two seasonal biologists to work on five of the intensive study plots in 2014.
- Accuracy of Density Estimates from Models Fit to Point Counts: BCP staff and partners drafted a manuscript comparing model-based GCWA density estimates with spot mapping for three different studies conducted on the BCP (Texas State University, U.S. Forest Service, Texas A&M University). The comparisons found that the model-derived estimates tend to overestimate GCWA densities, particularly in areas with low GCWA densities. Work on the draft manuscript will resume at the end of the 2014 field season.

Black-capped Vireo (BCVI)

- City BCP staff planted seeds of a variety of shrubs and forbs on the Sam Hamilton Memorial Reserve West tract on February 27, March 1, and March 12 in areas that were impacted by the 2011 drought.
- COA BCP staff and volunteers are continuing to implement demonstration projects at the Vireo Preserve to promote slope stabilization, soil restoration, and regeneration of native woody plants on degraded areas of the BCP that are currently not habitat for either the GCWA or BCVI.

Jollyville Plateau Salamander

- COA BCP staff assisted WPD with several JPS surveys.
- City and County staff conducted field surveys at several springs adjacent to LCRA's T-160 line upgrade. The goal was to try to determine if the new work could negatively impact the recently listed JP salamander.

Preserve Management

Dual-Managed Lands

- AWU and PARD are working with user groups of the Emma Long Motocross Park to develop an official trail map for motorized and mountain bike use. We will also be working with the user groups on additional trail restoration and closure of unauthorized trails.

LCRA T-160 Transmission Line

- LCRA submitted a proposal to upgrade their existing T-160 line which runs through the Bull creek macrosite. LCRA conducted clearing, and down hole boring camera work to assess any impacts on karst features prior to March 1, 2014. The project is now in the design stage and the replacement work will begin September 2014. LCRA is working closely with BCP and WPD staff to avoid impacts to endangered/threatened species and habitats.

Law Enforcement

- River Place Nature Trail (MUD trail).
 - The trail decommissioning and restoration work has been completed
 - A game camera installed along the section of the trail encroaching on City property continues to record trespassers despite notices at trailheads clearly declaring this section of trail closed. Very few were recorded since the trail has been decommissioned.
- Vandalism occurred again in an old house on the BCP Lanier Tract. The City plans to demolish the house in the fall (Ongoing)
- Trespass continues to be a problem on the Upper Bull Creek macrosite and in other locations.
- Several large homeless camps have been cleaned up in the Barton Creek greenbelt. AWU and PARD staff continues to monitor these sites and remove camps as they are discovered.
- Forest Ridge continues to have illegal trails cut by local running groups. Efforts are being made to contact local running groups to discourage further activities and patrols have increased. Cameras have also been placed at Forest Ridge. (Ongoing)

Invasive Species/Animal Management

- See Tawny Crazy Ants, above.
- BCP staff is continuing efforts to remove non-native plants on COA BCP tracts.
- BCP staff is actively removing feral hogs.
- BCP staff are treating RIFA with boiling water adjacent to BCP caves

Oak Wilt

- BCP staff continued monitoring of all confirmed oak wilt centers and updated the Oak Wilt Management Plan chapter.

Fencing Projects

- The Park West and Coldwater fences are complete; installation of the Lime Creek fence is in progress.
- COA BCP staff investigated recent flood damage; luckily most sites were easily repaired by staff. However, 2 water gaps on Beard Trust and one water gap on Vaught Ranch road were seriously damaged; staff plans to contract this work out.

Fire Management

- WCD staff continues to participate in the creation of a Community Wildfire Protection Plan for Travis County. The draft plan was released in August and has been reviewed and commented on by WCD staff. The final plan will be rolled out to the public on May 3rd.
- WCD staff worked with the Austin Fire Department Wildfire Division and the Jester Estates Firewise Committee on a fuel mitigation project on the Jester and Kent Butler BCP tracts. The work met the specifications in the City of Austin Fuel Treatments in Juniper and Juniper-Oak Woodlands, Best Management Practices within the Balcones Canyonlands Preserve. This work will serve as a demonstration project for proper implementation of fuel mitigation BMPs in habitat.