



United States Department of the Interior

FISH AND WILDLIFE SERVICE
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Memorandum

To: Regional Director, Region 2, Albuquerque, New Mexico

Through: Assistant Regional Director, Ecological Services, Region 2, Albuquerque, New Mexico

From: Field Supervisor, Austin Ecological Services Field Office, Austin, Texas

Subject: Biological Opinion for the CPS Energy Habitat Conservation Plan – Permit PER-0012435 (Consultation No. 02ETAU-2019-F-0403) (Consultation No. 02ETAU-2019-F-0403)

Enclosed is the U.S. Fish and Wildlife Service's (Service) biological opinion for the proposed section 10(a)(1)(B) incidental take permit for CPS Energy's (Applicant) Habitat Conservation Plan (HCP) to minimize and mitigate adverse effects to nine listed species.

The basis for this biological opinion comes from CPS Energy's HCP and the accompanying Environmental Assessment pursuant to the National Environmental Policy Act of 1969, Service files, discussions with species experts, published and unpublished literature available on the species and related impacts, and other sources of information available to the Service. A complete administrative record of this consultation is available at the Austin Ecological Service Field Office.

We appreciate your staff's assistance with this consultation. If you have any questions regarding this biological opinion, please contact Christina Williams at 512-490-0057, extension 235.

Attachment

Biological Opinion

This biological opinion (BO) addresses the issuance of a U.S. Fish and Wildlife Service (Service) section 10(a)(1)(B) incidental take permit (Permit or ITP) to CPS Energy (Applicant) for its programmatic Habitat Conservation Plan (HCP). The CPS Energy HCP, which is incorporated by reference, will minimize and mitigate, to the maximum extent practicable, adverse effects from activities affecting the federally endangered golden-cheeked warbler (*Setophaga* [= *Dendroica*] *chrysoparia*), Madla Cave meshweaver (*Cicurina madla*), Government Canyon Bat Cave spider (*Tayshaneta* [= *Neoleptoneta*] *microps*), Government Canyon Bat Cave meshweaver (*C. vespera*), Helotes mold beetle (*Batrisodes venyivi*), two ground beetles with no common names (*Rhadine exilis* and *Rhadine infernalis*), Robber Baron Cave meshweaver (*C. baronia*), and Cokendolpher cave harvestman (*Texella cokendolpheri*), (collectively the Covered Species), pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq., ESA).

Other species listed as threatened or endangered pursuant to the ESA or candidate species that may occur in the action area¹ are the endangered: 1) birds - whooping crane (*Grus americana*) and piping plover (*Charadrius melodus*); 2) plants - Texas snowbells (*Styrax texanus*), Texas wild-rice (*Zizania texana*), and Tobusch fishhook cactus (*Sclerocactus brevihamatus* subsp. *tobuschii*); 3) invertebrates - Peck's cave amphipod (*Stygobromus pecki*), Comal Springs dryopid beetle (*Stygoparnus comalensis*), and Comal Springs riffle beetle (*Heterelmis comalensis*); 4) fish - fountain darter (*Etheostoma fonticola*) and San Marcos gambusia (*Gambusia georgei*); and 5) amphibian - Texas blind salamander (*Eurycea rathbuni*); the threatened 1) amphibian - San Marcos salamander (*Eurycea nana*) and 2) bird - red knot (*Calidris canutus rufa*); and the candidate 1) plant - bracted twistflower (*Streptanthus bracteatus*) and 2) mussel - golden orb (*Quadrula aurea*).

While the red knot and piping plover may occasionally migrate through the action area, we do not expect these species to be impacted by the Covered Activities. Most of the CPS Energy activities are linear; therefore, CPS Energy does not expect its activities to change the recharge potential of the Edwards Aquifer or degrade local water quality. Additionally, CPS Energy must comply with local and state water quality protection requirements (City of San Antonio, Bexar County, and Texas Commission on Environmental Quality), which are described in more detail in Appendix A of this BO. Therefore, impacts to the Edwards Aquifer aquatic species (Texas wild-rice, Peck's cave amphipod, Comal Springs dryopid beetle, Comal Springs riffle beetle, fountain darter, San Marcos gambusia, Texas blind salamander, and San Marcos salamander) are not expected. While the golden orb does occur within the action area, CPS Energy activities typically span waterways; therefore, impacts to this species are not expected. The CPS HCP (Chapters 4.1.3 and 6.4) describes in more detail how CPS Energy activities will not affect these

¹ The CPS Energy Plan Area is different from the Service's action area for this biological opinion. See II.C below for a detailed description of the difference.

Biological Opinion for the CPS Energy Habitat Conservation Plan

species because of its planned avoidance, minimization, and conservation measures. We concur these measures will avoid or significantly reduce the potential for any affects to these species, so we do not discuss them further.

Prior to enrolling an activity in the HCP, CPS Energy will request plant locations from the Service and TPWD that may be within the project area and will avoid those locations, to the extent practicable. CPS Energy will avoid subsurface disturbances within 50 feet of any previously documented locality of such plant species, limited to those localities where continued occupancy by the plant species is likely. Additionally, CPS Energy will implement measures, such as altering mowing heights, in areas where endangered, threatened, or candidate plant species may occur to minimize disturbance to those species. If such measures are not practicable, CPS Energy will engage with the Service in advance of enrolling the CPS Energy activity in the HCP to identify what other minimization measures, if any, would be necessary to avoid jeopardizing the continued existence of the federally listed or proposed for listing plant species or avoid the destruction or adverse modification of designated or proposed critical habitat for listed plant species. Because of these avoidance and minimization measures, the Service believes Texas snowbells, Tobusch fishhook cactus, and bracted twistflower may be affected, but are not likely to be adversely affected.

The whooping crane primary migration corridor is more than 65 miles east of the eastern edge of the action area. While the action area does fall within the corridor where 95 percent of all cranes migrate, it is far enough away that it would be rare to have cranes stopping within the action area. However, CPS Energy does have an existing transmission line that extends into the primary migration corridor. Based on recommendations from the Service, CPS Energy has agreed to implement certain measures to encourage crane avoidance of those lines if they happen to stopover near the lines. These measures include marking those sections of existing transmission lines during significant upgrades that are within one mile of potential stopover habitat and are within the “80-mile” migration corridor. This portion of the Plan Area overlaps areas modeled as being occasionally used by whooping cranes during migration and that coincide with an increased prevalence of agriculture that can provide suitable migratory stopover habitat (Pearse *et al.* 2015). Markers will be traditional marker balls, spiral vibration dampeners, air flow spoilers, or similar technologies. CPS Energy will install markers on the shield wires, with spacing dependent on the type of marker used and will be inspected and replaced, as necessary, as part of routine operations and maintenance activities. Because of these measures the Service believes that while this line may affect whooping cranes, it will not likely adversely affect whooping cranes or their designated critical habitat, which is more than 52 miles south of the existing transmission line.

The Applicant will coordinate with the appropriate agencies, including Texas Parks and Wildlife Department (TPWD), on a project-by-project basis where State-listed species may be affected.

The issuance of a Service permit to authorize incidental take associated with the HCP is the proposed action for this intra-Service consultation pursuant to section 7 of the ESA.

I. Consultation History

After several Biological Advisory Team (BAT) and Citizens Advisory Committee (CAC) meetings, the Applicant submitted its draft HCP, along with an application for an ITP, in December 2017. After multiple revisions to the HCP, we published a notice of availability of the permit application, availability of the HCP, and a draft Environmental Assessment (EA) in the *Federal Register* on March 29, 2021 (86 FR 16382).

II. Proposed Action

A. Description

Regulations implementing the ESA (50 CFR 402.02) define “action” as “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies of the United States or upon the high seas.” This proposed federal action is for the Service to issue an ITP to the Applicant for otherwise lawful activities conducted within CPS Energy’s Service Area and the area within 15 miles of the current boundary of the City of San Antonio’s Extra-Territorial Jurisdiction (ETJ), which is expected to encompass CPS Energy’s growth area for the permit duration (see Figure 1 of the HCP, Plan Area). Activities covered by the HCP include electric transmission and distribution lines; natural gas transmission and distribution lines; electric or natural gas substations, switching and metering stations, and similar site-based facilities; and lighting on public roadways.

B. Conservation Measures

The CPS Energy HCP (Chapter 6 and 8) establishes a Conservation Program that minimizes and mitigates, to the maximum extent practicable, the adverse effects of authorized take of the Covered Species including general avoidance and minimization measures and species-specific conservation measures. These measures include:

1. **Mitigation:** Mitigation will be in the form of on-the-ground preservation. Mitigation ratios will be applied depending on the severity of the impact. CPS Energy will seek Service concurrence on the proposed mitigation for any CPS Energy Covered Activity prior to enrolling in this HCP.
2. **Environmental Checklist:** CPS Energy environmental staff will identify environmental constraints associated with CPS Energy activities, including Covered Species and any potential impacts to those species. Environmental staff that will complete the checklist are qualified, degreed geologists, biologists, or environmental scientists whose duties include ensuring CPS Energy compliance with applicable federal and state environmental regulations (see Appendix B for a draft of the checklist).
3. **HCP Training:** CPS Energy will conduct periodic education and training sessions for CPS Energy project designers on federal, state, and local environmental requirements and HCP and ITP requirements.

4. **Vegetation Management:** CPS Energy will clear or manage vegetation within ROWs using aboveground means (e.g., mowing, hydro-ax, manual cutting; as opposed to scraping, grading, and ripping) when practicable, which minimizes subsurface disturbances and impacts to covered karst invertebrates from soil disturbances. CPS Energy conducts vegetation management as necessary to create and maintain safe and reliable conditions.
5. **Oak Wilt Prevention:** CPS Energy will direct its work crews to follow the City of San Antonio Oak Tree Ordinance and Texas A&M Forest Service (TFS) prevention of oak wilt measures (TFS 2015). The TFS recommends eliminating diseased red oaks, handling firewood properly, and painting wounds on healthy oaks to prevent the spread of oak wilt (TFS 2015). Work crews will treat all trimming cuts or other wounds to oak trees, including freshly cut stumps and damaged surface roots immediately (within one hour) with a wound paint or latex paint to prevent exposure to contaminated insect vectors (TFS 2015).
6. **Herbicide Use:** CPS Energy work crews will apply all pesticide and herbicides pursuant to label requirements for dilution, application, disposing of rinse water, and disposing of empty containers.
7. **Revegetation:** CPS Energy will restore disturbed areas to preconstruction contours, where practical, and revegetate disturbed areas with native species following completion of a Covered Activity.
8. **Waterway Protection:** CPS Energy work crews will install and maintain all appropriate erosion and sedimentation controls in accordance with local and state regulations and industry best practices.
9. **Seasonal Clearing Restrictions:** CPS Energy will, to the maximum extent practicable, perform vegetation clearing and construction activities within GCWA habitat outside of the GCWA breeding season.
10. **Karst Review:** CPS Energy will review the area within 1,500 feet of a Covered Activity for previously documented occupied karst features, using information from the Service on the locations of such features updated no less than annually (see Chapter 8.3). For each occupied karst features within 1,500 feet of a Covered Activity (including any such features detected within the ROW of the Covered Activity), CPS Energy will determine if the feature is an approved Karst Fauna Area (KFA) or a potential KFA (see Section E of this BO for a description of KFA). All features within 1,500 feet of a Covered Activity will be discussed with the Service during the annual coordination meeting (see 13 below).
11. **50-ft Avoidance Zone:** CPS Energy will avoid making subsurface disturbances within 50 feet of the entrance or footprint (if known) of an occupied karst feature or an assumed

occupied karst feature (a feature that is not surveyed, but assumed to contain the karst species that occur within the Karst Fauna Region, defined in E below).

12. **Advance Coordination and Briefing:** CPS Energy will engage with the Service in advance of enrolling any CPS Energy activity that meets the following criteria: 1) within 345 feet (if an electric-related activity) or 750 feet (if a gas-related activity) of the entrance or footprint (if known) of an occupied or assumed occupied karst feature, or within designated critical habitat for the covered karst invertebrates, or within an approved or potential KFA.
13. **Annual Coordination Meeting:** CPS Energy will request a meeting with the Service each year to discuss upcoming CPS Energy activities, updated distribution or occurrence information for the Covered Species, opportunities for mitigation, and other concerns.

This biological opinion summarizes these minimization and mitigation measures throughout. Where there are discrepancies, the Permit and then the HCP shall supersede any inconsistencies herein.

C. Action Area

According to the Service's HCP Handbook (2016), the Plan Area is all areas that will be used for any activities described in the HCP, including Covered Activities and the Conservation Program. The Plan Area must at a minimum include the permit area, but it may be larger. The Plan Area for the CPS Energy HCP includes areas where authorized incidental take is expected along with related monitoring, minimization, and mitigation measures; the current CPS Energy Service Area; corridors along CPS Energy's existing transmission lines to the southeast; and the area within 15 miles of the current boundary of the City of San Antonio's ETJ (Figure 1). The Plan Area encompasses approximately 4,488 square miles (2,872,494 acres) spanning some or all of 20 Texas counties. According to the Service's HCP Handbook (2016), the permit area is the geographic area where the impacts of the activity(ies) occur for which an incidental take permit is requested (i.e., the Covered Activities). For the purposes of this BO the permit area (also the action area) is smaller, since the Covered Species only occur within a portion of the HCP's Plan Area. To incorporate all potential habitat for the Covered Species, the Service designates all portions of the Plan Area north of U.S. 90, which runs east-west through central San Antonio, out to the 15-mile Plan Area boundary as the action area. This action area is approximately 2,308 square miles (1,477,120 acres) (Figure 2).

III. Status of the Species and Status of Critical Habitat

This section evaluates the range-wide condition of each species, the factors responsible for that condition, the survival and recovery needs, and the status of any designated critical habitat.

Critical habitat definitions previously defined Primary Constituent Elements (PCEs) as those specific elements of the physical and biological features that provide for a species' life history processes and are essential to the conservation of the species (50 CFR 424.12(b)). The new critical habitat regulations (81 FR 7414) discontinue use of the PCE term or reference to essential habitat features and rely exclusively on use of the term "physical or biological features"

(PBFs) for that purpose. To be consistent with that shift in terminology and in recognition that the terms PBFs, PCEs, and essential habit features are synonymous in meaning, we are only referring to PBFs herein.

A. Golden-Cheeked Warbler

We emergency listed the golden-cheeked warbler (GCWA) as endangered on May 4, 1990 (55 FR 18844). We published the final rule listing the species on December 27, 1990 (55 FR 53160).

The GCWA winters in mountainous regions of Chiapas, Mexico, and Guatemala, Honduras, El Salvador, and Nicaragua (Ridgeway 1902, Oberholser 1974, Pulich 1976, Perrigo and Booher 1994, Rappole *et al.* 1999, Komar 2008). On the wintering grounds, GCWAs prefer foraging in deciduous trees in pine-oak forests (Thompson 1995, Rappole 1996). The GCWA migrates from Mexico and Central America and nests and rears young from March to August (Kroll 1974, Oberholser 1974, Pulich 1976) in mixed Ashe juniper/deciduous woodlands in approximately 35 counties across the Edwards Plateau, Lampasas Cut-Plain, and Llano Uplift regions of central Texas. The GCWA begins departure from the breeding grounds by mid-June (Pulich 1976, Ladd and Gass 1999). Although most birds have departed by the end of July (Chapman 1907, Simmons 1924, Pulich 1976, Ladd and Gass 1999), a male was documented feeding juveniles in late July (pers. comm. Bill Reiner, City of Austin, 2020) and GCWAs have been documented in Texas into late September (eBird checklist S48703807, S28370948, S30848647). Because of these late records, particularly the juveniles, the Service considers the GCWA breeding season to be March 1 through August 31. While GCWAs have been documented into September, we believe first-year birds will have matured enough that they are capable of migrating south at that point.

A comprehensive survey of GCWAs throughout their range does not exist, but various estimates of acres of habitat in the breeding range have been made. Morrison *et al.*'s (2010) habitat model estimated 4.4 million acres range-wide. The most recent habitat model estimates 3.9 million acres of potential habitat in the breeding range and determined there was a 29 percent loss of habitat between 1999-2000 and 2010-2011 (Duarte *et al.* 2013).

Several estimates of population numbers have been made in the last 10 years. Groce *et al.* (2010) summarized surveys completed between 2005 and 2009 across the range and estimated there were at least 8,700 GCWAs. Mathewson *et al.* (2012) modeled range-wide GCWA habitat and estimated there could be as many as 263,330 males. However, independent peer review of this population model raises concerns with overestimation (The Wildlife Society 2011). Partners

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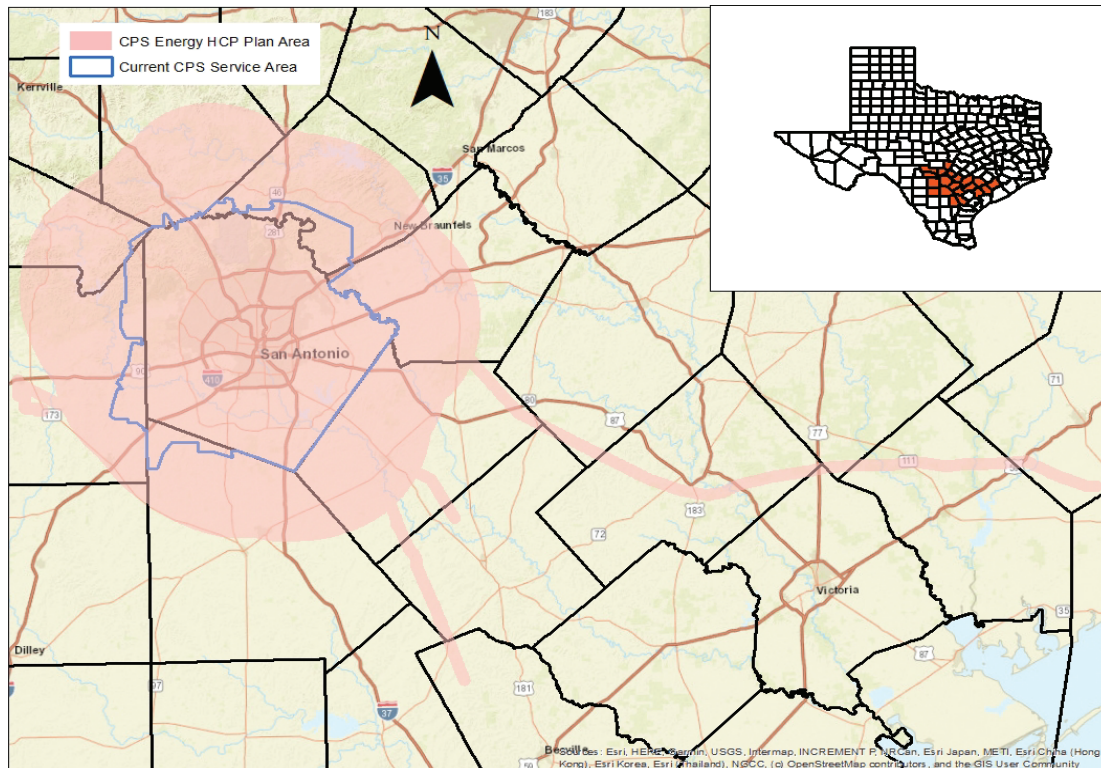


Figure 1: CPS Energy HCP Plan Area

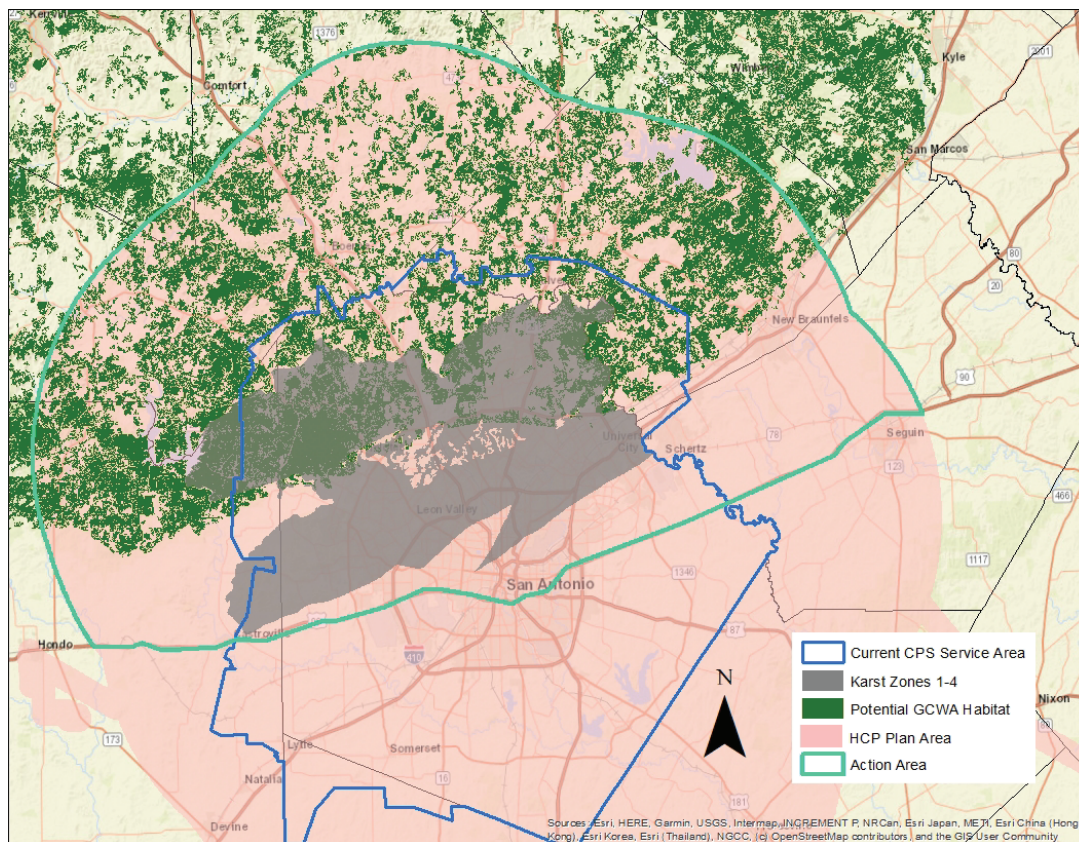


Figure 2: CPS Energy HCP Action Area

in Flight (2019) estimated the GCWA breeding population to be 110,000 individuals, based on data from seven routes in the North American Breeding Bird Survey, as described by Stanton *et al.* (2019).

According to the GCWA Recovery Plan (Service 1992), the breeding range has been divided into eight recovery regions, all of which occur in the action area. Groce *et al.* (2010) found no evidence to indicate that the amount of GCWA breeding habitat is increasing or stable due to continued loss and fragmentation from human development, shifts in land use, and construction of roads and utility transmission corridors. Because projected increases in human population will continue within the breeding range of the species, these threats are likely to intensify. A variety of public and private lands currently receive some level of protection from future land development activities, and some of these are managed as natural areas or wildlife preserves focusing on the protection and management of the GCWA.

The primary recovery criterion is protection of sufficient habitat to support 3,000 breeding pairs in each of the eight recovery regions (Service 1992). Groce *et al.* (2010) estimated the amount of GCWA habitat on state and federally owned lands, they include 77,198 acres of Department of Defense (DOD) lands (Fort Hood, Camp Bullis, and U.S. Army Corps Engineers); 39,428 acres on Texas Parks and Wildlife Department (TPWD) lands; 2,844 acres on LCRA properties; and 14,789 acres on the Balcones Canyonlands National Wildlife Refuge (NWR). Cities, counties, conservation organizations, and others, including several Service approved conservation banks for GCWAs, own an additional 50,000 acres across the breeding range. These properties will protect an additional 15,000 acres upon sale of all conservation credits. Progress is being made towards achieving the recovery criteria; however, as of 2014, none had been achieved (Service 2014). Changes in the GCWA's distribution, abundance, and threats have occurred since publication of the recovery plan in 1992 (Service 2014). Therefore, the criteria identified in the 1992 recovery plan do not adequately address all threats to the species nor do they reflect the current needs of the species based on the best available science.

We incorporate by reference the Golden-cheeked Warbler Recovery Plan (Service 1992) and 5-Year Review (Service 2014). Additional information on this species' life history, range, migration, habitat, threats, recovery needs, and status can be found at the Service's endangered species page: <https://ecos.fws.gov/>.

According to our consultations tracking database, there have been 69 formal section 7 consultations on the GCWA not including those developed as part of a 10(a)(1)(B) permit, which are discussed below. The action area these consultations covered was over 65.4 million acres. Multiple consultations are on Fort Hood, Camp Bullis, and Camp Stanley; however, we are only counting the action areas once for the total area covered by these formal consultations. The action areas for one brush control consultation covered almost half of Texas at 60 million acres, with another at 773,000 acres, and a prescribed fire consultation covered another 4.2 million acres. In total we have authorized over 105,000 acres of take; however, most of this acreage was subjected to adjacency effects (i.e., the habitat remained intact, but edge introduced predators and potentially reduced fitness and reproductive success). The result of these consultations is over 82,000 acres of GCWA habitat on DOD or private land preserved or maintained for the benefit of the GCWA.

In addition to section 7 consultations for other federal agency actions, we have issued 138 individual 10(a)(1)(B) incidental take permits covering the GCWA, from local, individual, project scales to range-wide scales. In total we have authorized impacts to almost 58,000 acres of GCWA habitat range-wide. Of this total 37,400 acres were part of large scale HCPs (total habitat loss authorized indicated in parentheses): Williamson RHCP (6,000 acres), Oncor's programmatic HCP (3,000 acres), Hays County's Regional HCP (9,000 acres), LCRA's Compatible Renewable Energy Zone HCP (1,100 acres), Comal County's Regional HCP (9,000 acres), the Southern Edwards Plateau (SEP) HCP (9,300 acres), and LCRA's TSC Programmatic HCP (8,396 acres). The conservation result of all HCPs, if fully implemented, is over 71,600 acres of land preserved for the benefit of the GCWAs.

B. Karst Invertebrates

On December 26, 2000, we listed the Madla Cave meshweaver (*Cicurina madla*), Government Canyon Bat Cave spider (*Tayshaneta* [= *Neoleptoneta*] *microps*), Government Canyon Bat Cave meshweaver (*C. vespera*), Helotes mold beetle (*Batrissodes venyivi*), and two ground beetles with no common names (*Rhadine exilis* and *Rhadine infernalis*), Robber Baron Cave meshweaver (*C. baronia*), Cokendolpher cave harvestman (*Texella cokendolpheri*) as endangered (65 FR 81419). On April 8, 2003, we designated critical habitat for *C. madla*, *B. venyivi*, *C. baronia*, *T. cokendolpheri*, *R. exilis*, and *R. infernalis* (68 FR 17156). On February 14, 2012, we revised these critical habitat designations, and designated critical habitat for *T. microps* and *C. vespera* (77 FR 8450). Hedin *et. al* (2018) synonymized *C. venii* with *C. madla* making *C. venii* a non-valid taxon. Therefore, we are not addressing *C. venii* further in this BO. We are describing the remaining species as a group because their habitat, life history characteristics, and threats to their existence are similar across all species. We describe their similarities and differences in the following discussion.

All of these species are endemic to central Texas. Three of these species are insects: two ground beetles and one mold beetle. The remaining species are arachnids, including one harvestman and four spiders. All of these invertebrates are troglobites (spending their entire lives underground), have small or absent eyes, and pale coloration (National Speleological Society 1982, Barr 1968). Their habitat includes caves and mesocavernous voids in karst limestone (landforms and subsurface features, for example, sinkholes and caves, produced by dissolution of bedrock) (Barr 1968). Within this habitat these animals depend on high humidity, stable temperatures, suitable substrates (for example, spaces between and underneath rocks), and surface-derived nutrients (Barr 1968). The absence of light in deep cave zones precludes photosynthetic activity by plants and associated primary production. Rather, nutrient sources found in these underground habitats are those actively (e.g., animals) or passively (e.g., gravity, water, or wind) transported in from overlying surface habitats (Barr 1967 and 1968, Culver 1982, Poulson 2012, Culver and Pipan 2009). Thus, although these species spend their entire lives underground, their ecosystem is dependent on the overlying surface habitat.

We track the known locations of each species for progress towards recovery. The following are the known total number of caves from which each species occurs. From Bexar County currently we know of 60 caves that support *R. exilis*, 74 caves with *R. infernalis*, 35 caves with *C. madla*, 2 cave with *T. microps*, 12 caves with *C. vespera*, 2 caves with *C. baronia*, 1 cave with *T.*

cokendolphi, and 9 caves with *B. ventyivi*. Each cave occurs in or near to a Karst Fauna Region (KFR), which is a geographic area delineated based on discontinuities of karst habitat that may reduce or limit interaction between troglobite populations. There are six KFRs in Bexar County: Stone Oak, University of Texas at San Antonio (UTSA), Helotes, Government Canyon, Culebra Anticline, and Alamo Heights (Veni 1994).

The primary threat to these species is habitat destruction. Impacts to caves and karst habitat occur in several ways, including but not limited to: 1) completely filling the cave during development, 2) quarrying activities, and 3) capping or sealing cave entrances. Other causes of habitat degradation include altering drainage patterns, altering native surface plant and animal communities, reducing or increasing nutrient flow, contamination, damage caused by excessive human visitation, and threats from red-imported fire ants. Red-imported fire ants impact karst invertebrates by competing with the beneficial cave crickets, feeding directly on karst invertebrates, and by competing with karst invertebrates for habitat resources (Service 2011).

The recovery strategy for all listed karst invertebrates is to reduce threats to the species by protecting an adequate number of karst areas to ensure a high probability of the species' long-term survival (Service 2011). This includes protecting caves or cave clusters and the associated mesocaverns necessary to support populations that represent the range of the species potential genetic diversity. Maintenance of these karst preserves involves keeping them free from contamination, excessive human visitation, and nonnative fire ants by maintaining an ecologically healthy surface plant and animal community. Preserve managers need to regularly monitor and adaptively manage to control existing and new threats (Service 2011).

For the purposes of recovery, a karst fauna area (KFA) is an area known to support one or more locations of a listed species. There are three categories of KFAs: high, medium, and low quality. All preserved KFAs should be either medium (at least 40 acres) or high (at least 90 acres) quality as defined in the karst preserve recommendations (Service 2011). To meet the downlisting criterion for these karst species, preservation of at least the minimum number of KFAs in each KFR for each species must occur. To delist these species, the downlisting requirements must occur and the data from monitoring and research must support the conclusion that the KFAs will provide a high probability of species survival (greater than 90 percent over 100 years).

The following number of KFAs and potential KFAs (those areas that may meet KFA status but we have not recognized them as such) exist for each species. Because DOD cannot encumber their land permanently, which is a requirement of KFA status, we list those caves separately, since they still contribute to recovery.

- *C. madla* – 4 KFAs and 1 high quality preserve established; available: 8 high quality, 4 medium quality, and 2 on DOD land.
- *B. ventyivi* – 2 KFAs and 1 medium quality preserve established, available: 1 medium quality.
- *R. exilis* – 6 KFAs and 1 medium quality preserve established; available: 5 high quality, 3 medium quality, and 22 caves on DOD land.

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- *R. infernalis* – 7 KFAs and 2 high quality preserves established; available: 8 high quality, 4 medium quality, and 5 caves on DOD lands.
- *T. microps* – 2 KFAs.
- *C. baronia* – No KFAs or preserves established and none are available.
- *T. cokendolpheri* – No KFAs or preserves established and none are available.

Designated Critical Habitat Units

We designated 4,216 acres in 30 critical habitat units (CHU) surrounding 59 caves and define the PBFs for the Bexar County karst invertebrates as:

- Karst-forming rock containing subterranean spaces (caves and connected mesocaverns) with stable temperatures, high humidity (near saturation), and suitable substrates (for example, spaces between and underneath rocks for foraging and sheltering); and
- Surface and subsurface sources (such as plants and their roots, fruits, and leaves, and animal (e.g., cave cricket) eggs, feces, and carcasses) that provide nutrient input into the karst ecosystem (77 FR 8450).

We designated critical habitat around occupied karst features if at least one of the PBFs existed at the time of designation. We have grouped the CHUs into three categories: 1) this group has 100 percent of both PBFs due to establishment as a KFA or permanent preserve; 2) this group has both of the PBFs with some CHU modification, but the potential to still meet recovery exists; and 3) this group has some impacts to both PBFs and does not currently have the potential to meet recovery; however, they still have conservation value in supporting the survival of the species. According to the karst species' recovery plan (Service 2011):

In situations where the possibility for high and medium quality KFAs doesn't exist, we encourage the establishment of low-quality karst preserves. While these preserves do not count towards meeting the recovery criteria, they still provide some chance of survival for these species.

The 30 units are currently as follows:

- 1) Both PBFs fully intact (7 units): 1a-f, and 26;
- 2) PBFs intact with some modification (12 units): 2-4, 7-9, 10a and b, 14, 17, 21, and 22; and
- 3) Both PBFs with impacts (11 units): 5-6, 11e, 12-13, 15, 16, 19, 20, 23, 25

While 4,216 acres were designated as CHUs, only 3,273.6 acres were unimpaired (no impervious cover) at the time of designation. Looking at recent aerial imagery, we compared impacts between 2012 and 2019/2020. There remains approximately 3,169 acres of unimpaired land within the CHUs, which is a percent change of only -0.3 percent.

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Table 1: The status of CHUs by species.

Species	No. of Units	Total Unit (ac)	Unimpaired in 2012 (ac)	Unimpaired in 2020 (ac)	Percent Change	Acreage Decrease Range (ac)
<i>R. infernalis</i>	20	2,955	2,575	2,530.5	-0.90	1.2-19.5
<i>R. exilis</i>	15	2,363	2,059	1996.4	-0.70	1.3-50
<i>C. madla</i>	13	2,101	1,837.5	1,830	-0.52	1.2-5
<i>C. vespera</i>	3	609	402	397	-0.50	5
<i>B. ventyivi</i>	3	595	583.7	582.4	-0.01	1.3
<i>T. microps</i>	1	100	100	100	0	0
<i>T. cokendolpheri</i>	1	247	0	0	0	0
<i>C. baronia</i>	2	347	0	0	0	0

Of the 30 units, 9 had increased impacts between 2012 and 2020. Four of the 9 units had less than 4 percent increases in impervious cover, 3 had 11-20 percent, and 2 had 50 percent or above.

According to our consultations database for the Bexar County karst invertebrates there have been no formal section 7 consultations that were not associated with a HCP for *B. ventyivi*, *T. microps*, or *T. cokendolpheri*. There have been six consultations for road projects and one for a water line covering one or more of *C. venii*, *C. madla*, *R. exilis*, or *R. infernalis*. Four road projects and the waterline have been constructed and resulted in the filling in of six caves and impacts to over 6,955 acres of karst zones, the majority of which were in areas with no known, occupied features. Adverse effects were minimized by reducing the footprint of the projects, where possible, and implementing Best Management Practices over karst zones during construction. Mitigation included a medium quality preserve was permanently established and will eventually be incorporated into a KFA, and the funding of biota and genetics research on *Cicurina* species.

We have issued four section 10(a)(1)(B) incidental take permits, including the associated intra-Service section 7 consultation, that have covered all but *T. cokendolpheri* and *C. baronia* from the Alamo Heights KFR. One consultation authorized the filling of one cave and impacts to two caves that are within one-acre setbacks. Mitigation for the take authorized in this permit consisted of the purchase of 7 karst preserves totaling 181 acres. The second permit was to Bexar County and the City of San Antonio for their SEP HCP and authorizes impacts to 21,086

acres of karst zones 1 and 2. Mitigation will result in 1,000 new acres of karst preserves resulting in approximately 10 to 15 KFAs protected for the recovery of these species. The third permit was for a water line that would impact 68 acres of karst habitat and resulted in a 58-acre permanent preserve for karst invertebrates. And, the final consultation was on LCRA TSC's transmission HCP; however, it only covers impacts within Medina County, if the species' ranges are ever extended across the county line. Mitigation ratios will be applied based on the severity of the impact.

We incorporate by reference the recovery plan (Service 2011) and 5-year reviews (Service 2019a and b; 2020 a, b, and c). Additional information on this species' life history, range, habitat, threats, recovery needs, and status can be found at the Service's endangered species page: <https://ecos.fws.gov/>.

IV. Environmental Baseline

Service regulations found at 50 C.F.R. 402.02 define the Environmental Baseline as “the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline” (50 CFR 402.02).

A. Golden-cheeked Warbler

Within the action area there are approximately 353,735 to 424,268 acres of potential GCWA habitat (Morrison *et al.* 2010, Duarte *et al.* 2013). There is no population estimate for the action area; however, the SEP HCP, which is a 7-county Plan Area centered around and to the north of Bexar County, estimated 2.0 to 4.1 territories per 100 acres. Using these same estimates and applying them to the acres of potential habitat within the action area, there are between 7,075 and 17,395 GCWA territories.

Within the action area there are numerous properties under some sort of protection including, but not limited to, state owned lands by TPWD; fee simple and conservation easement lands for water quality protection owned by the City of San Antonio, The Nature Conservancy, and the Edwards Aquifer Authority; and city and county parks. Overlaying those conservation lands to potential GCWA habitat there are approximately 50,000 acres within the action area on these lands; noting that not all of this acreage is GCWA habitat but could be buffering GCWA habitat. Additionally, DOD's Camps Bullis and Stanley with over 31,000 acres total support a large population of GCWAs under management and protection. The City of San Antonio has approved four propositions between 2000 and 2015 to buy lands over the Edwards Aquifer and many of these lands are contributing to GCWA conservation. The last proposition was \$10 million in 2015, which the City is currently prioritizing lands to conserve with a focus on lands

closer to Bexar County and the GCWA is considered in the priority ranking of those lands, so we expect additional future conservation through this program for the GCWA.

There is no critical habitat designated for the GCWA; therefore, none will be adversely affected by the Covered Activities.

B. Karst Invertebrates

Because the action area encompasses the entire known range of the karst invertebrates, we consider the environmental baseline to be the status of the species and its designated critical habitat.

V. Effects of the Action

Effects of the action are all consequences to listed species or designated critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (50 C.F.R. 402.02, 402.17).

Per the section 7 regulations (50 CFR 402.17(c)), the provisions in paragraphs ((a) (*activities that are reasonably certain to occur*)) and ((b) (*consequences caused by the proposed action*)) of this section must be considered by the Service. Therefore, we discuss activities that are “reasonably certain to occur” and “consequences caused by the proposed action” below. A conclusion of “reasonably certain to occur” must be based on clear and substantial information, using the best scientific and commercial data available. Factors to consider when evaluating whether activities caused by a proposed action (but are not part of the proposed action) or whether activities reviewed under cumulative effects are reasonably certain to occur include: 1) past experiences with activities that have resulted from actions that are similar in scope, nature, and magnitude to the proposed action, 2) existing plans for the activity, and 3) any remaining economic, administrative, and legal requirements necessary for the activity to go forward (50 C.F.R. 402.16).

To be considered an effect of a proposed action, a consequence must be caused by the proposed action (i.e., the consequence would not occur but for the proposed action and is reasonably certain to occur) (50 C.F.R. 402.02). Considerations for determining that a consequence to the species or designated critical habitat is not caused by the proposed action include, but are not limited to: 1) the consequence is so remote in time from the action under consultation that it is not reasonably certain to occur, or 2) the consequence is so geographically remote from the immediate area involved in the action that it is not reasonably certain to occur, or 3) the consequence is only reached through a lengthy causal chain that involves so many steps as to make the consequence not reasonably certain to occur (50 C.F.R. 402.17).

A. Golden-cheeked Warbler

Consequences due to implementation of the CPS Energy HCP are habitat loss through removal of vegetation resulting in fragmentation, which can reduce habitat patch sizes below the threshold used by the GCWA. Additionally, for areas where vegetation is not removed but within 300 feet of a Covered Activity consequences occur due to increased edge, which can increase the presence of nest predators and parasites and reduce patch quality and overall habitat suitability, causing GCWAs to avoid these areas. Issuance of the requested permit will cause habitat loss of up to 2,032 acres of GCWA habitat. This is 0.5 to 0.6 percent of all potential GCWA habitat in the action area based on Morrison *et al.* (2010) and Duarte *et al.* (2013) and will result in consequences on up to 18,289 acres of adjacent GCWA habitat, which is 4.3 to 5.1 percent of habitat within the action area. This adjacent habitat is expected to remain intact, but could be considered a lower quality, due to introduced or increased edge effects. Range-wide the habitat proposed to be permanently removed is 0.05 percent of all available habitat and adjacent habitat impacts are 0.4 to 0.5 percent of total potential GCWA habitat.

As detailed in Chapter 6 of the HCP, CPS Energy will use a tiered approach for assessing impacts and applying varying mitigation ratios. A mitigation ratio is the number of acres that will be preserved for every acre of habitat that is adversely impacted by the Covered Activities. Ratios are based on the significance of the impacted habitat to the species and the biological value of protected habitat compared to what will be lost. Impacts to suitable habitat with presumed occupancy or refined determinations based on field visits by Service-permitted biologists for GCWAs will be mitigated at a 2:1 ratio for permanent habitat removal and 0.5:1 for adjacent impacts 300 feet out from cleared habitat. Impacts to habitat where projects are collocated with existing infrastructure (for example, within or immediately adjacent to an existing cleared right-of-way) will be mitigated at a 1:1 ratio where additional habitat is removed adjacent to the existing infrastructure and at a 0.5:1 ratio for the additional buffer added outside of the existing 300 foot area already experiencing edge effects. For unexpected impacts that occur during the breeding season (for example, emergency actions), March 1 to July 31. These impacts will be mitigated at a 4:1 for any habitat cleared during the breeding season and at 1:1 for 300 feet out in the adjacent habitat that remains intact. The final ratio is for New Construction or Significant Upgrades that CPS Energy chooses to perform during the breeding season. An additional ratio on top of the 4:1 and 1:1 of 0.1:1 will be applied to all GCWA habitat within 300 feet of the location of the in-season construction.

In an effort to reduce the impacts to the GCWAs, thereby reducing the amount of mitigation required, CPS Energy will implement several species specific minimization measures including avoiding clearing during the breeding season from March 1 through July 31, and following established oak wilt prevention methods in areas where oak wilt is known to occur. One minimization measure in particular, the annual meeting between CPS Energy and the Service, will be an opportunity to discuss upcoming projects and how they are implementing the HCP with regard to the GCWA, at which time the Service can ensure the HCP is being implemented properly, for example that minimization measures are being implemented and that mitigation is appropriate and available prior to the Covered Activity.

Applying the existing impacts ratio (1:1) versus the standard mitigation ratio (2:1) to the amount of incidental take requested (amount of habitat acres to be removed), if all of the take is used, results in 2,032 to 4,064 acres of permanently preserved mitigation. If all adjacent impacts (18,289 acres) are realized over the life of the permit, this would result in an additional 9,145 acres of GCWA preserves. This could result in a total of 11,177 to 13,209 acres of preserves permanently protected for the GCWA. Because we expect impacts during the breeding season to be rare, we did not use those ratios in these calculations. These levels of mitigation are consistent with the GCWA Recovery Plan (Service 1992) by contributing to recovery by permanently preserving more acreage than is removed and by focusing mitigation in single parcels when acreage impacted will likely come from patches spanning linear projects.

Mitigation (as detailed in Chapter 6.7 of the HCP) will occur through one or more of the following: 1) a Service-approved conservation bank with priority given to banks that have the Covered Activities within its service area, 2) Service-approved in-lieu fee programs, 3) third-party mitigation transactions, or 4) Permittee-responsible mitigation lands. Whatever mitigation delivery method CPS Energy uses, the result will be the permanent preservation of existing occupied breeding habitat, unless otherwise approved, that will contribute to the resiliency and redundancy of the species for persistence and recovery.

Based on the nature of electric and gas lines providing a service to existing infrastructure and development, we expect the majority of the impacts to GCWA habitat to be adjacent to previously modified lands (for example following existing roads and rights-of-way) (see Chapter 3.2.2 of the HCP). This practice is also encouraged by the mitigation ratios established in the Conservation Program (see Chapter 6); therefore, the inherently low impact of the requested taking is minimized by discouraging the fragmentation of previously unfragmented patches of GCWA habitat (i.e., co-location with existing infrastructure focuses new habitat modifications on habitats that are already exposed to edge effects). However, the mitigation is expected to be in large contiguous patches of habitat to ensure the long-term viability of the mitigation.

We have not designated critical habitat for the GCWA; therefore, no adverse modification of critical habitat will occur.

B. Karst Invertebrates

Take coverage for the Bexar County karst invertebrates will be in karst zones that support the listed karst invertebrates, which is currently only in Bexar County. CPS Energy anticipates relying on participation in the SEP HCP for much of its incidental take authorization related to the Covered Karst Invertebrates (Chapter 6.3.2.1). In general, those areas that cannot participate in the SEP HCP are impacts within 750 feet of an occupied karst feature, if downlisting criteria have not been met for that species in that KFR, and within designated critical habitat (see Chapter 3.2.3 of the SEP HCP for more details on this restriction by the HCP). Additionally, CPS Energy is requesting incidental take for two species that the SEP HCP does not have take coverage for: *C. baronia* and *T. cokendolpheri*, which only occur in the center of the City of San Antonio in the heavily developed Alamo Heights KFR.

Biological Opinion for the CPS Energy Habitat Conservation Plan

Consequences due to implementation of the CPS Energy HCP could occur from collapsing cave ceilings; altering natural drainage patterns (by altering topography, increasing impervious cover, installing berms or water collecting devices) resulting in drying or flooding; loss or degradation of the surface plant and animal communities resulting in changes to the moisture, temperature, or nutrient regimes of the karst ecosystem and increasing predation and competition; pollution; loss of connectivity with other features, which limits dispersal and genetic diversity; a reduction in the quality of the habitat over time (e.g. drying of a feature, less cave crickets, etc.); and less abundant vegetation for foraging cave crickets. To quantify those effects CPS Energy has defined Direct Habitat Modifications as subsurface disturbances associated with the Covered Activities on previously unmodified lands, and Indirect Habitat Modifications as those areas of surface disturbances (trimming trees or shrubs with no root disturbance) on previously unmodified lands.

Based on its analysis of expected future growth, CPS Energy projects the following amounts of subsurface and surface impacts (Table 2). We've broken out zones 1 and 2 from 3 and 4, since there is a higher likelihood of caves in zones 1 and 2 versus 3 and 4. We have also broken out surface versus subsurface disturbances, since subsurface impacts are permanent impacts to karst while surface impacts (such as mowing and tree trimming) still allow for cave cricket and small mammal movement.

Table 2: CPS Energy project surface and subsurface disturbances.

Species	# of KFRs	Total Acres (Zones 1 and 2)	Total Acres (Zones 3 and 4)	Subsurface Disturb. (acres)*	Surface Disturb. (acres)*	% of Subsurf. 1 and 2	% of Subsurf. 3 and 4	% of Surf. 1 and 2	% of Surf. 3 and 4
<i>C. madla</i>	5	133,574	112,341	18.3	183.2	0.014%	0.163%	0.137%	0.163%
<i>R. exilis</i>	5	133,574	112,341	18.3	183.2	0.014%	0.163%	0.137%	0.163%
<i>R. infernalis</i>	5	133,574	112,341	18.3	183.2	0.014%	0.163%	0.137%	0.163%
<i>C. vespera</i>	2	56,718	86,009	8	81.8	0.014%	0.095%	0.144%	0.095%
<i>B. ventyivi</i>	2	56,315	29,700.8	8	85.7	0.014%	0.289%	0.152%	0.289%
<i>N. microps</i>	1	39,549	21,302	5.7	62.3	0.014%	0.292%	0.158%	0.292%
<i>C. baronia</i>	1	5,139.8	76,735	29.5	73.7	0.574%	0.096%	1.434%	0.096%
<i>T. cokendolpheri</i>	1	5,139.8	76,735	29.5	73.7	0.574%	0.096%	1.434%	0.096%

*Some species have the same acreage because they occur in the same KFR. Therefore, every time an acre is deducted in that KFR it applies to all species in that KFR. For example, if one acre of subsurface or surface disturbance occurs in the Stone Oak KFR, an acre will be deducted from *C. madla*, *R. exilis*, and *R. infernalis*, the three species known from that KFR.

For all but the Alamo Heights KFR species (*C. baronia* and *T. cokendolpheri*) there is less than 1 percent of both subsurface and surface impacts expected in karst zones 1 and 2. While the

impacts expected in the Alamo Heights KFR are higher, only the percent of expected surface disturbance is greater than 1 percent but is still less than 1.5 percent in karst zones 1 and 2. It is important to note that the majority of the Alamo Heights KFR has already undergone a significant amount of surface and subsurface disturbance, including over the cave footprints of all of the known occupied features.

To better understand the enrollment process and application of mitigation ratios for Covered Activities, the Service and CPS Energy created a flow chart (Figure 3). This flow chart represents what the HCP details but provides it in a more concise format. Most important is the coordination component, which is where CPS Energy will coordinate with the Service to determine the potential for jeopardy and adverse modification of designated critical habitat, how to avoid both, and what to do if it is unavoidable.

In an effort to reduce the impacts to the karst invertebrates, thereby reducing the amount of mitigation required, CPS Energy will implement several species specific minimization measures including: 1) reviewing the area within 1,500 feet of a Covered Activity for occupied features; 2) determining if the occupied feature is an approved KFA or a potential KFA; 3) avoiding making subsurface disturbances within 50 feet of the entrance or footprint (if known) of an occupied karst feature or an assumed occupied karst feature; 4) minimizing, to the extent possible, the removal of woody vegetation from the area within 50 feet of the entrance or footprint (if known) of an occupied karst feature; 5) engaging with the Service in advance of enrolling any CPS Energy activity that is within 345 feet (if an electric-related activity) or 750 feet (if a gas-related activity) of the entrance or footprint (if known) of an occupied karst feature (High Impact Zone), within designated critical habitat, or within an approved or potential KFA; 6) judicious use of pesticides and herbicides through hand application; and 7) submitting to the Service a brief description of its proposed Covered Activities within High Impact Zones and proposed measures to minimize impacts to the Covered Species for review and approval by the Service, so that we can ensure that all possible avoidance and minimization measures will be implemented and jeopardy and adverse modification of designated critical habitat will not occur.

As noted in the flow chart, when take avoidance is not possible, CPS Energy will mitigate: 1) outside of High Impact Zones in karst zones 1 through 4 at 0.25:1 for subsurface impacts, and 0.1:1 for surface impacts; 2) 10:1 for subsurface impacts in High Impact Zones and 1:1 for surface impacts in zones 1 through 4; and 3) 20:1 for subsurface impacts and 2:1 for surface impacts in designated critical habitat or when impacting an approved or potential KFA. CPS Energy will prioritize mitigation opportunities that contribute to the creation of a KFA. If creation of a new KFA or expansion of an existing KFA is not practicable, then other opportunities may be evaluated in coordination with the Service, such as preservation of lands associated with a potential KFA or another occupied karst feature. These levels of mitigation will contribute to overall recovery by permanently preserving more acreage than is removed and by focusing mitigation around occupied features when much of the impacts expected will be to

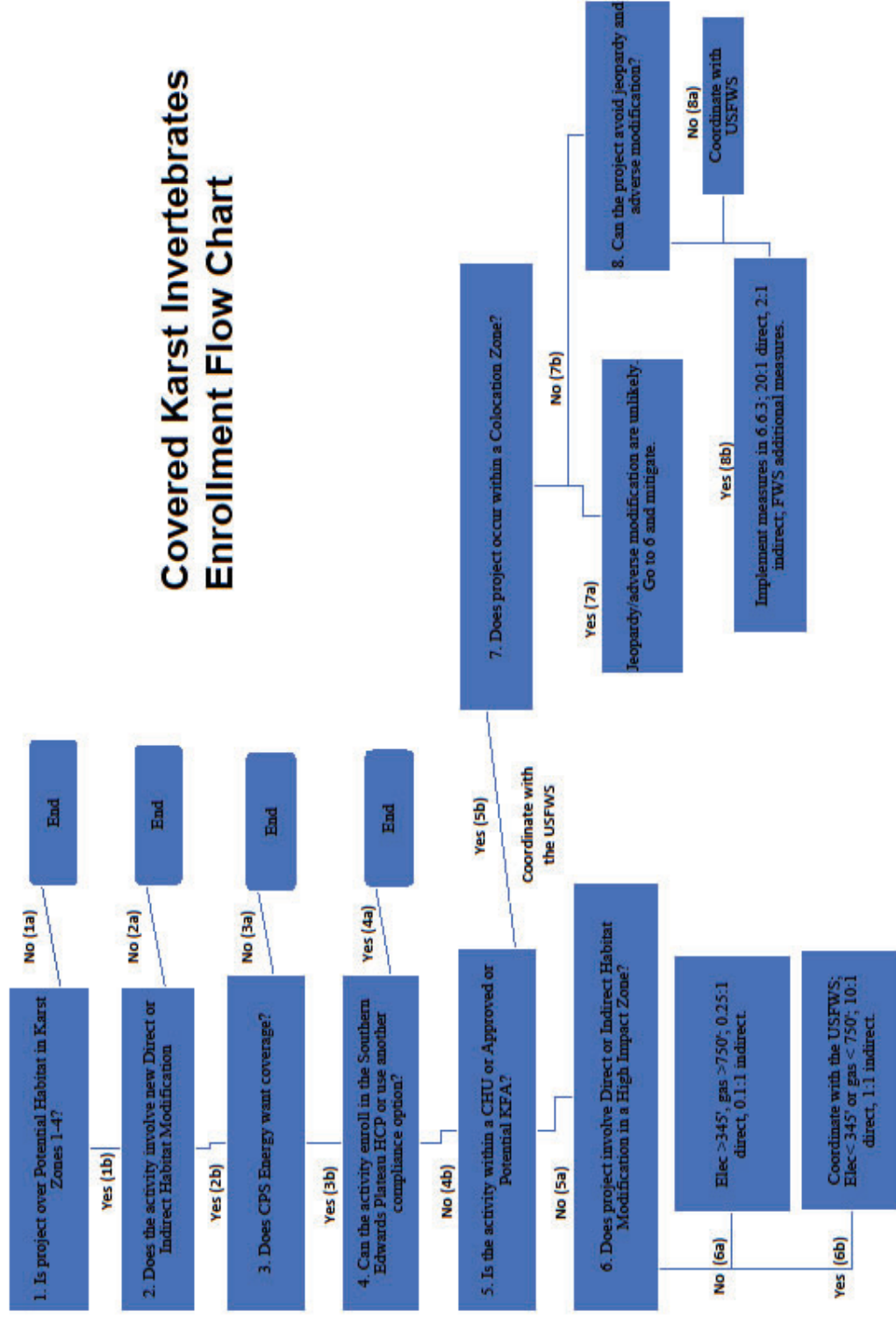


Figure 3: Covered Karst Invertebrate Enrollment Flow Chart

general karst zones not directly associated with a known occupied feature. Additionally, CPS Energy will seek Service concurrence on proposed mitigation for any CPS Energy activity prior to enrolling the activity in the HCP.

Designated Critical Habitat Units

In consultations for listed species, federal agencies are required to: 1) ensure that their activities do not destroy or adversely modify critical habitat to the point that it will no longer aid in the species' recovery; and 2) ensure that any action authorized, funded, or carried out will not likely jeopardize the continued existence of a listed species. Critical habitat designations are focused by statute on areas or features “essential to the conservation of the species” (PBFs). The definition of “destruction or adverse modification” is focused first on the critical habitat itself, and then considers how alteration of that habitat affects the “conservation” value of critical habitat, while the phrase “jeopardize the continued existence of” focuses directly on the species' survival and recovery. Thus, designation of critical habitat helps ensure that federal actions will not result in the adverse modification of habitat to the point that the species' potential to achieve recovery will be appreciably reduced. Therefore, we might make an adverse modification call if the quality, quantity, or configuration of habitat is impacted to a point that would appreciably reduce the species' ability to meet recovery, which is why we discuss the CHUs both in regard to PBFs and recovery.

Ten of the 30 CHUs do not have any CPS Energy infrastructure in them. Because of the annual meeting, the avoidance and minimization measures that will be implemented near occupied caves, and the fact that these are primarily approved KFAs or preserves, we do not expect adverse modification of these designated CHUs from Covered Activities.

The other 20 designated CHUs have existing CPS Energy infrastructure that falls into two categories: those that are already heavily disturbed and those with some existing infrastructure. For the five CHUs with existing gas lines, which are buried, both the surface and subsurface have been heavily impacted within all of them (for example, Figure 4). While this was the case at the time of critical habitat designation, we believe the deeper subsurface mesocaverns are still contributing to the survival of the species, despite their ability to not meet recovery. Because Covered Activities in these five CHUs will likely be upgrades or replacements to existing infrastructure in areas already disturbed, we do not expect those activities to cause destruction or adverse modification to the CHUs.

Many of the 15 remaining CHUs with existing electric lines and maintained ROWs can still meet recovery (for example, Figure 5). Adverse effects to critical habitat, as a result of the requested ITP, will likely be avoided within these CHUs because activities will likely be upgrades or replacements, and CPS Energy has agreed to: right-of-way maintenance that minimizes soil disturbance, the avoidance and minimization measures near known occupied features (Chapter 6.4 of the HCP), and the coordination meeting where we will discuss all upcoming projects. The Service and CPS Energy will follow the Covered Karst Invertebrate Enrollment Flow Chart when assessing project impacts on karst invertebrates. The purpose of the flow chart is to determine in the early planning phases those projects that may have the potential to result in

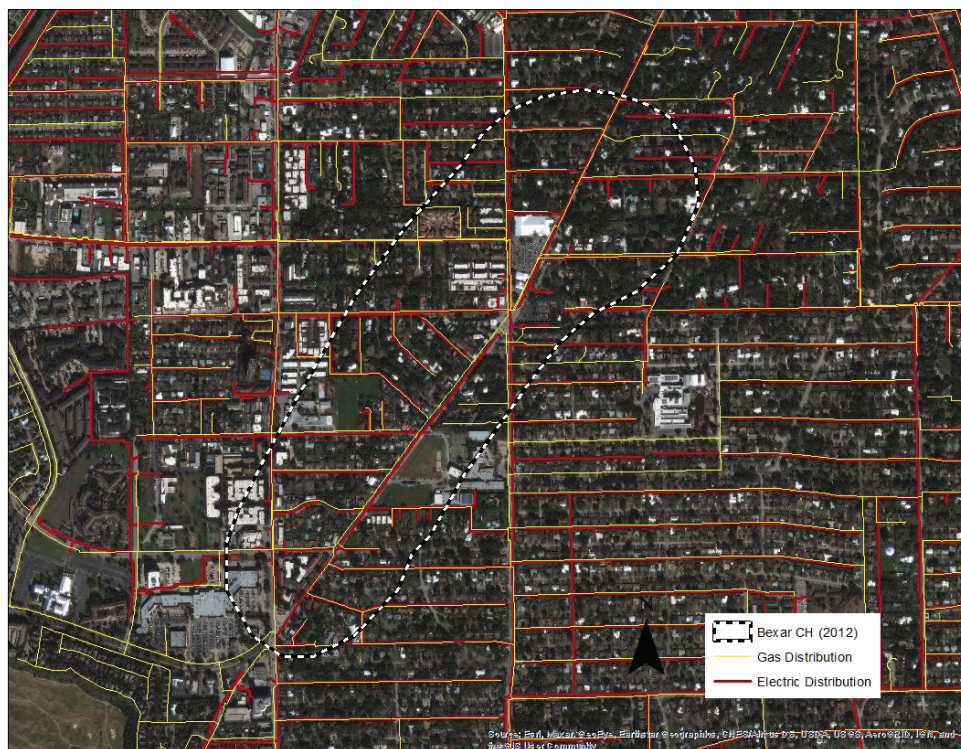


Figure 4: Heavily disturbed CHU in Alamo Heights KFR.

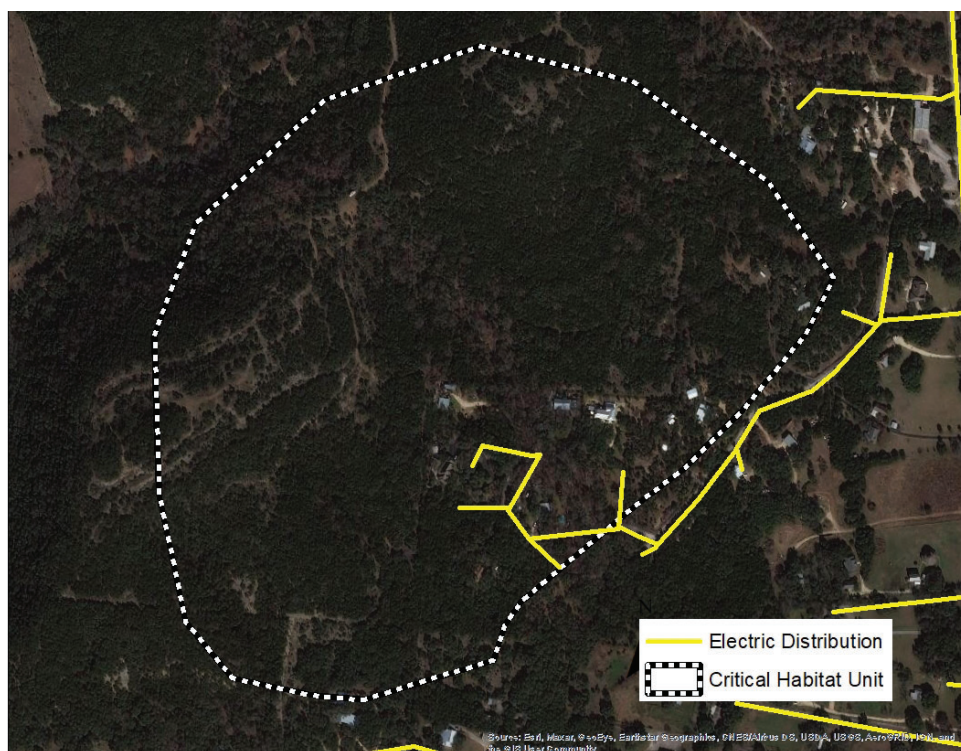


Figure 5: CHU with some CPS infrastructure

jeopardy or adverse modification and what steps will be taken to ensure that projects do not reach this point.

Following is a summary of the status of CHUs by species:

Of the 20 CHUs with *R. infernalis*, 8 have no infrastructure and are in preserves. CPS Energy has existing infrastructure within the remaining 12, 7 of which cannot meet recovery for this species. The remaining CHUs have some CPS infrastructure, which is above ground electric only, and is more than 345 feet from the caves with *R. infernalis*.

Of the 15 CHUs with *R. exilis*, 3 have no infrastructure and are in preserves. CPS Energy has existing infrastructure within the remaining 12, 6 of which cannot meet recovery for this species. The remaining CHUs have some CPS infrastructure, which is above ground electric only, and is more than 345 feet from the caves with *R. exilis*.

Of the 13 CHUs with *C. madla*, 4 have no infrastructure and are in preserves and 1 is in a City park and will likely become a future preserve. CPS Energy has existing infrastructure within the remaining seven, three of which cannot meet recovery for this species. The remaining CHUs have some CPS infrastructure, which is above ground electric only, and is more than 345 feet from the caves with *C. madla*.

Of the three CHUs with *C. vespera*, two have no infrastructure, one is in a preserve and the other is a likely future preserve. The remaining CHU has existing CPS Energy infrastructure throughout a large lot subdivision and cannot meet recovery for this species.

Of the three CHUs with *B. venyivi*, one is in a KFA and the other is in a preserve. The remaining CHU has existing CPS Energy infrastructure throughout a large lot subdivision and cannot meet recovery for this species.

Of the one CHU with *T. cokendolpheri* and two CHUs with *C. baronia*, none can meet recovery and all three have CPS Energy gas and electric lines throughout the CHU, including over the cave footprints. Based on the amount of impervious cover and existing excavation, we do not believe that CPS Energy Covered Activities likely to occur in these CHUs (upgrading or replacing existing electric or gas lines) will likely rise to adverse modification of the designated critical habitat for *C. baronia* or *T. cokendolpheri*.

VI. Cumulative Effects

Cumulative effects are those effects of future state or private activities not involving federal activities that are reasonably certain to occur in the action area of the federal agency subject to consultation (50 CFR 402.02). We do not consider future federal actions that are unrelated to the proposed action in this section because they require separate consultation pursuant to section 7 of the ESA. We consider cumulative effects in this BO below.

An undetermined number of future land use and habitat conversions that are not subject to federal authorization or funding that may alter Covered Species habitat or increase incidental take of species covered by this opinion are, therefore, cumulative to the proposed project. These

additional potential cumulative effects include: 1) increased impervious cover due to urbanization, (e.g., roads and subdivisions), 2) habitat alteration by invasive or exotic/non-native species, 3) and increased habitat destruction and fragmentation due to expanding urbanization and oil and gas pipelines going from west Texas to the coast.

The increase in population and associated infrastructure in the action area will continue to increase the production of greenhouse gases, which in turn will impact the climate. The term climate refers to a "complex, interactive system consisting of the atmosphere, land surface, snow and ice, oceans and other bodies of water, and living things" (Le Treut *et al.* 2007). Different factors can act to change the climate; there are natural factors, such as volcanic eruptions and solar variations, as well as human factors, such as changes in atmospheric composition (Le Treut *et al.* 2007). Climate change refers to a major shift in weather patterns over a number of years due to these factors. The reason the Earth's surface is warm is the presence of greenhouse gases, which act as a partial blanket keeping heat in. One of the most important greenhouse gases is carbon dioxide. Some studies have shown that human activities have potentially intensified the blanketing effect through the release of greenhouse gases, primarily through the combustion of fossil fuels and removal of forests (Le Treut *et al.* 2007). A continuing warming trend could result in an increasing intensity of weather events (such as drought, tornados, hurricanes, and floods), which could degrade or destroy Covered Species habitat and could wound or kill individuals that are not able to avoid such catastrophes.

Expected beneficial cumulative effects reasonably expected to occur in the Plan Area include continued state, local government, and private lands preservation. For example, preservation of lands as part of the SEP HCP mitigation program and the continued preservation of lands through the Edwards Aquifer water quality protection program implemented by the City of San Antonio. While not all conservation of these lands is specifically for the Covered Species, to some degree they are likely to benefit them if the Covered Species occur on them.

VII. Conclusion

"Jeopardize the continued existence of" means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR 402.02). Our analysis relies on 4 components: (1) Status of the Species, (2) Environmental Baseline, (3) Effects of the Action, and (4) Cumulative Effects. The jeopardy analysis in this BO emphasizes the range-wide survival and recovery needs of the listed species and the role of the action area in providing for those needs. It is within this context that we evaluate the significance of the proposed federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

This concludes our review of the current status of the golden-cheeked warbler (*Setophaga* [= *Dendroica*] *chrysoparia*), Madla Cave meshweaver (*Cicurina madla*), Government Canyon Bat Cave spider (*Tayshaneta* [= *Neoleptoneta*] *microps*), Government Canyon Bat Cave meshweaver (*C. vespera*), Helotes mold beetle (*Batrisodes venyivi*), and two ground beetles with no common names (*Rhadine exilis* and *Rhadine infernalis*), Robber Baron Cave meshweaver (*C. baronia*), Cokendolpher cave harvestman (*Texella cokendolpheri*); the environmental baseline

for the action area; the effects of the proposed project; and the cumulative effects. As described in the “Effects of the Action” section above we do expect there to be adverse effects to the Covered Species from the Covered Activities. These adverse effects could be from direct killing, disruption of the ability to disperse, habitat removal or fragmentation, and increases in competition for habitat and food. Also, as discussed above, we do not expect effects to designated critical habitat to rise to the level of adverse modification.

As detailed in Chapter 6.4 of the HCP, CPS Energy has committed to several minimization measures to reduce impacts from Covered Activities, including, but not limited to, meeting annually with the Service to discuss minimizing and avoiding the effects of projects, and implementing best practices and other measures to reduce environmental impacts before, during, and after construction. Additionally, CPS Energy has committed to mitigation where take avoidance is not possible by applying a multi-level tier of ratios expected to encourage reducing impacts from Covered Activities. These ratios will result in permanently preserving more acreage than is removed and by focusing mitigation in single parcels when acreage impacted will likely come from patches spanning linear projects. We believe that the measures CPS Energy proposes will greatly reduce the likelihood of lethal take, and while potentially damaging to the local subpopulations of the Covered Species in a worst-case scenario, the HCP will result in consequential benefits to the species as a whole. As a result, it is the Service's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the Covered Species or adversely modify designated critical habitat.

Although the consequences of the proposed action may compound those existing factors affecting the aforementioned species, we do not anticipate a reduction in the overall reproduction, numbers, and distribution to the point of jeopardizing their continued existence and recovery as a result of implementing the proposed project.

VIII. Incidental Take Statement

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. “Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. “Harm” is further defined (50 CFR § 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. “Harass” is defined (50 CFR § 17.3) as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. “Incidental take” is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

The measures described below are non-discretionary and must be undertaken by the Service so that they become binding conditions of any grant or permit issued to the CPS Energy, as appropriate, for the exemption in section 7(o)(2) to apply. The Service has a continuing duty to regulate the activity covered by this incidental take statement. If the Service (1) fails to assume and implement the terms and conditions or (2) fails to require the CPS Energy to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to

the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the Service and/or CPS Energy must report the progress of the action and its impact on the species as specified in the incidental take statement. [50 CFR §402.14(i)(3)].

A. Amount or Extent of Take

Based on the results of the “Effects of the Action” analysis above, the Service anticipates incidental take of golden-cheeked warbler, Madla Cave meshweaver, Government Canyon Bat Cave spider, Government Canyon Bat Cave meshweaver, Helotes mold beetle, two ground beetles with no common names (*Rhadine exilis* and *Rhadine infernalis*), Robber Baron Cave meshweaver, and Cokendolpher cave harvestman will occur as a result of the proposed action. Because quantifying take of individuals of these species is difficult, this biological opinion instead evaluates acres of habitat directly and indirectly affected as a surrogate for the level of incidental take. The use of habitat as a proxy for take of individuals of a species is consistent with existing case law. Courts have recognized that as a general matter “Congress wanted incidental take to be stated in numbers of animals, where practical, not in terms of habitat markers” (*Miccosukke Tribe of Indians or Florida v. US*, 566 F.3d 1257 [11th Cir. 2009]). However, courts have also explained that “While Congress indicated its preference for a numerical value; it anticipated situations in which impacts could not be contemplated in terms of a precise number.... In the absence of a specific numerical value, however, the Fish and Wildlife Service must establish that no such numerical value could be practically obtained” (see *Arizona Cattle Growers’ Association v. U.S. Fish and Wildlife Service*, 273 F.3d 1229, 1249-50 [9th Cir. 2001]). See also *Oregon Natural Resources Council v. Allen*, 476 F.3d 1031, 1037 [9th Cir. 2007] in which the Service was directed to explain why it was unable to numerically quantify the level of take. The incidental take due to the proposed action is expected to occur in the form of harm through adverse effects. This take will be authorized through issuance of an incidental take permit pursuant to 10(a)(1)(B) of the ESA. The following amounts of incidental take will be authorized by the proposed Permit. We are categorizing the take below for the GCWA in acres that are authorized to be removed versus those acres that will have adverse effects from introduced edge but where the habitat remains intact. Additionally, the karst invertebrate take is categorized by surface versus subsurface disturbance.

1. No more than 2,032 acres of golden-cheeked warbler habitat may be adversely affected through habitat removal;
2. No more than 18,289 acres of golden-cheeked warbler habitat may be adversely affected through introduced edge;
3. No more than 18.3 acres of Madla Cave meshweaver habitat may be adversely affected by subsurface effects;
4. No more than 183.2 acres of Madla Cave meshweaver habitat may be adversely affected by surface effects;
5. No more than 18.3 acres of *Rhadine exilis* habitat may be adversely affected by subsurface effects;

6. No more than 183.2 acres of *Rhadine exilis* habitat may be adversely affected by surface effects;
7. No more than 18.3 acres of *Rhadine infernalis* habitat may be adversely affected by subsurface effects;
8. No more than 183.2 acres of *Rhadine infernalis* habitat may be adversely affected by surface effects;
9. No more than 8 acres of Government Canyon Bat Cave meshweaver habitat may be adversely affected by subsurface effects;
10. No more than 81.8 acres of Government Canyon Bat Cave meshweaver habitat may be adversely affected by surface effects;
11. No more than 8 acres of Helotes mold beetle habitat may be adversely affected by subsurface effects;
12. No more than 85.7 acres of Helotes mold beetle habitat may be adversely affected by surface effects;
13. No more than 5.7 acres of Government Canyon Bat Cave spider habitat may be adversely affected by subsurface effects;
14. No more than 62.3 acres of Government Canyon Bat Cave spider habitat may be adversely affected by surface effects;
15. No more than 29.5 acres of Robber Baron cave meshweaver habitat may be adversely affected by subsurface effects;
16. No more than 73.7 acres of Robber Baron cave meshweaver habitat may be adversely affected by surface effects;
17. No more than 29.5 acres of Robber Baron cave harvestman habitat may be adversely affected by subsurface effects; and
18. No more than 73.7 acres of Robber Baron cave harvestman habitat may be adversely affected by surface effects.

B. Effect of the Take

In the accompanying biological opinion, the Service has determined that this level of anticipated take is not likely to result in jeopardy or adverse modification of designated critical habitat of the Covered Species.

C. Reasonable and Prudent Measures and Terms and Conditions

The HCP contains all measures necessary to avoid, minimize, and mitigate incidental take of the Covered Species to the maximum extent practicable and the ITP requires that the HCP be fully implemented. Monitoring will be conducted as stated in Chapter 8.2 of the HCP. Therefore, no additional reasonable and prudent measures and terms and conditions are necessary for the Covered Species.

IX. Conservation Recommendations

Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered or threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or designated critical habitat, to help implement recovery plans, or to develop information.

1. Assist with implementing recovery tasks for those species with recovery plans.

To keep the Service informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

X. Reporting Requirements

An annual report will be submitted by CPS Energy by September 1 each year to the Austin ESFO and will describe the previous year's activities, including compliance with all conservation measures, issues with implementation of conservation measures, how issues were resolved, an accounting for the incidental take that occurred, mitigation that was put in place, and any other compliance issues in implementing the Permit and the HCP (described in detail in HCP Chapter 8). Upon expiration of the Permit, CPS Energy must submit a final annual report summarizing full compliance with the Permit and HCP.

XI. Reinitiation Notice

This concludes formal consultation on the issuance of a Service 10(a)(1)(B) permit for the CPS Energy Habitat Conservation Plan to minimize and mitigate, to the maximum extent practicable, adverse effects to the Covered Species for Covered Activities described in the CPS Energy HCP over a period of 30 years. As provided in 50 CFR Sec. 402.16, reinitiation of consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of authorized incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered; (3) if the identified action is subsequently modified in a manner that causes an effect to the listed species not considered in this biological opinion; or, (4) a new species is listed or critical habitat designated that may be affected by the identified action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

XII. Signatures

Approved:

**ADAM
ZERRENNER**

Digitally signed by
ADAM ZERRENNER
Date: 2021.10.05
09:30:02 -05'00'

Field Supervisor
Austin Ecological Services Field Office

Date

Concur:

Deputy Regional Director
Region 2

Date

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XIV. APPENDIX A

CPS Energy Systemwide HCP – Supplemental Information

3/9/20

Natural Gas Leak Detection and Monitoring. CPS Energy is continually monitoring natural gas line integrity in accordance with applicable regulations. In 2003, the Pipeline and Hazardous Materials and Safety Administration (PHMSA) finalized the Rule for Pipeline Integrity Management that went into effect in 2004. The Rule specifies regulations for assessing, evaluating, repairing and validating through comprehensive analysis the integrity of gas transmission pipelines that, in the event of a leak or failure, could impact High Consequence Areas (HCAs). HCAs identify areas where the public safety or the environment could be impacted. Operators are required to develop and follow an Integrity Management Program (IMP) for continually assessing pipeline integrity for all segments affecting HCAs.

The Pipeline Integrity Management Program (IMP) ensures that safety is built into CPS Energy's everyday operation. CPS Energy has two programs that fall under IMP. These Plans are called the Transmission Integrity Management Program (TIMP) and the Distribution Integrity Management Program (DIMP). Both programs outline processes for evaluating and reducing pipeline risk.

In 2009, PHMSA finalized the Rule for Gas Distribution Pipeline Integrity Management that went into effect in 2010. Pipeline Operators were required to implement their plan by 2011. The Rule requires a written plan that addresses the following elements:

- Knowledge
- Identify Threats
- Evaluate and Rank Risks
- Identify and Implement Measures to Address Risks
- Measure Performance, Monitor Results, and Evaluate Effectiveness
- Periodic Evaluation and Improvement
- Report results

Additional Minimization Measures. As a general practice, CPS Energy does not construct access roads or parking areas with impervious cover in transmission easements. CPS Energy does not control construction of roads or parking areas on customers' private property. Electrical equipment chemicals, such as fuel for backup generators and transformer oils, are only stored within permanent CPS Energy facilities which are equipped to store such chemicals in a safe manner and in accordance with applicable regulatory requirements for spill and leak prevention and secondary containment.

For all construction projects, CPS Energy must comply with local and state water quality protection requirements (City of San Antonio, Bexar County, and Texas Commission on Environmental Quality [TCEQ]). Construction projects that exceed 1 acre of ground disturbance

must comply with the TCEQ Texas Pollutant Discharge Elimination System (TPDES) program which regulates discharges of pollutants, including sediments from soil erosion, from entering into Texas surface waters. In accordance with the TPDES regulations, CPS Energy would obtain permit coverage under the TPDES Construction General Permit (TXR150000) for the proposed project and would implement a stormwater pollution prevention plan (SWPPP) for construction activities in accordance with the permit requirements prior to construction activities commencing. A Notice of Intent (NOI) would need to be submitted to TCEQ since the project area exceeds 5 acres. The SWPPP would outline the process of implementing pollution prevention procedures as required by the TPDES Construction General Permit, including Best Management Practices (BMP) to be implemented on site where needed prior to and during construction activities to reduce the potential of pollutants discharging from the project area (e.g., soil erosion, waste materials, construction chemicals). BMPs include preservation of existing vegetation wherever feasible, erosion and sediment controls (e.g., silt fencing, erosion matting, etc.), good housekeeping practices, control measures for hazardous materials, and post-construction stabilization measures to restore disturbed areas following the construction activities. In accordance with the TPDES Construction General Permit, routine inspections would be conducted throughout the duration of construction to ensure BMP measures are operating efficiently and that no pollutant discharges are occurring from the construction activities. Erosion and sediment control measures would be maintained and inspections conducted until all disturbed sites are sufficiently revegetated, as required by the SWPPP.

For projects over the Edwards Aquifer Recharge or Contributing Zones, there are even more stringent water quality projection measures in accordance with TCEQ regulations; these measures include additional spill containment measures for storage of hazardous materials. The Edwards Aquifer zones encompass the majority of the karst invertebrate zones in Bexar County. In general, construction activities planned for the Edwards Aquifer Contributing and Recharge Zones require submittal and approval of TCEQ Aquifer Protection Plans. Regulated activities within the Contributing Zone require a Contributing Zone Plan (CZP). Regulated activities within the Recharge Zone require a Water Pollution Abatement Plan (WPAP). The only regulated activity that requires an Aquifer Protection Plan within the Edwards Aquifer Transition Zone is installation of aboveground and underground storage tanks (ASTs and USTs).

Regulated activities within the Contributing and Recharge Zones include:

- construction of buildings, utility stations, utility lines, roads, highways, or railroads;
- clearing, excavation, or any other activities that alter or disturb the topographic, geologic, or existing recharge characteristics of a site;
- any installation of aboveground or underground storage tank facilities on the recharge or transition zone of the Edwards Aquifer; or
- any other activities that may pose a potential for contaminating the Edwards Aquifer and hydrologically connected surface streams.

Installation of aboveground storage tanks (ASTs) and underground storage tanks (USTs) within Bexar County is regulated by three entities, the TCEQ, the Edwards Aquifer Authority (EAA), and San Antonio Water System. For installation of ASTs in the Contributing Zone, 150 percent

secondary containment is required by TCEQ regulations, and the containment system must be described in the CZP to be submitted to TCEQ. For installation of ASTs in the Recharge Zone, tertiary containment is required by EAA and secondary containment of both tanks and piping is required by TCEQ; submittal of a TCEQ AST Facility Plan is required.

As a general practice, chemicals such as fuels or herbicides are not stored within CPS Energy easements. Contractors are required to properly store fuels and chemicals in construction vehicles and in accordance with the requirements of the project SWPPP.

HCP Training. CPS Energy provides training to all new hires and annual refresher training for employees. The CPS Energy project environmental checklist is covered in these training sessions. For new major construction projects, such as transmission lines and substations, CPS Energy project managers requires contractor attendance at a pre-construction meeting. This meeting covers construction and permitting requirements, including applicable environmental requirements such as City of San Antonio tree ordinance, stormwater pollution prevention plan compliance, Edwards Aquifer rules, and, when applicable, HCP compliance (such as karst void discovery notification).

Vegetation Management. For compliance with safety and electric reliability regulations, CPS Energy may need to exercise access to any portion of its transmission and distribution easements to conduct facility construction, repairs, and maintenance. In practice, many easements have significant herbaceous and woody vegetation cover in areas where construction or maintenance access has not been required. Many easements, for example, include a narrow pervious access road and clearing around structures, but allow regrowth of woody vegetation outside these areas. As illustrated in Photograph 1, clearing in sensitive habitat areas can be minimized for construction of monopole transmission line structures.



Photograph 1. CPS Energy Kendall – Cagnon transmission line along State Highway 211.

Herbicide Use. CPS Energy only employs state-licensed herbicide applicators for easement construction projects and maintenance activities. As discussed above, herbicides are not stored within CPS Energy easements; herbicides are transported to project areas by contractors and maintenance personnel as needed to perform construction and maintenance activities. Therefore, herbicides are not stored within CPS Energy easements in karst zones.

Revegetation. Federal reliability standards require utilities to manage vegetation growth along the path of their larger power transmission lines to keep trees and other vegetation from getting too close to power lines. Following construction, CPS Energy can allow natural vegetation succession within easements as long as safe vegetation distances are maintained. Additional vegetation clearing may be required to perform routine maintenance or emergency repairs.

XV. APPENDIX B – ENVIRONMENTAL CHECKLIST

<p>This checklist is required to be completed for every project. If any of the questions below are answered “Yes”, the checklist shall be submitted along with a copy of the Preliminary Design to the Environmental Services Department for further review prior to being released to construction. The completed checklist and any subsequent correspondence from the Environmental Services Department shall be attached to Task 2130 in Work Manager or Task 330/Attachments at the BCA level. If all answers are “No”, project is not required to be submitted to the Environmental Services Department for further review.</p>			
<p>Project Name and Address/Location:</p> <p>Identify the name of the municipality if applicable.</p>		<p>Include the BCA# and all WR#s to be reviewed that include Soil Disturbance and Overhead Work in Historic Districts:</p>	
<p>Project Contact(s):</p> <p>Include CPS Energy PM</p>		<p>Estimated Construction Start Date:</p>	
<p>Developer’s Engineering Firm and Contact Information:</p>		<p>Environmental Review Need-By Date:</p>	
<p>Project Description:</p> <p>Include all soil disturbances.</p> <p>Specify total number of poles and/or length of trenches.</p>		<p>Total Area of Soil Disturbance (in acres):</p> <p>Include all *on-site and **off-site soil disturbances (AKA the Common Plan of Development).</p>	
<p>Storm Water Pollution Prevention Plan (SWPPP) for Electric or Gas Projects</p>			<p>Yes or No</p>
<p>Does the project involve soil disturbance and the Common Plan of Development (Total Area of Soil Disturbance) is 1 acre or greater?</p>			
<p>Will any construction activity involving soil disturbance occur in an Unincorporated Area of Bexar County AND the Common Plan of Development (Total Area of Soil Disturbance) is 1 acre or greater?</p>			
<p>If off-site impacts, is CPS Energy responsible for installation and removal of off-site BMPs, and installation of final stabilization practices (i.e. mulch, seed)?</p>			
<p>Threatened or Endangered Species (GIS Bexar County Area Karst)</p>			<p>Yes or No</p>
<p>Will any construction activity involving soil disturbance occur in Karst Zones 1, 2, 3 or 4?</p>			

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Threatened or Endangered Species (GIS Birds)	Yes or No
Will any construction activity occur within 300 feet of potential endangered songbird habitat not already surrounded by existing dense urban development?	
Waters of the U.S./Floodplain (GIS Floodplain Boundary and if in creek/water body)	Yes or No
Will construction activity impact any surface water drainage areas by trenching? Spanning and boring are not considered to be impacts.	
Will construction activity involving soil disturbance occur within the 100-year floodplain? Boring under the flood plain is identified as disturbance.	
Cultural & Historical Resources (GIS Historic Districts)	Yes or No
Will any construction activity be on publically owned land (i.e. park property, Port of San Antonio, city, county, state property), include more than 10 new pole locations, or include more than 50 linear feet of trenching in the right-of-way or CPS Energy easements?	
Will any off-site activity be near a Historic Building or Structure, within a Historic District, within the CRAG Area, the Downtown Area, or along the San Antonio River?	
Edwards Aquifer Zone	Yes or No
Will any construction activity involving soil disturbance occur within the within the Edward's Aquifer Recharge Zone?	
Is the Common Plan of Development (Total Area of Soil Disturbance) 5 acres or greater and within the Edward's Aquifer Contributing Zone?	
Tree Ordinance	Yes or No
Will any on-site construction activity occur in close proximity of tree's root system?	
Will any off-site construction activities involve tree trimming or tree removal within a municipality?	
National Environmental Policy Act	Yes or No
Will any construction activity involving soil disturbance occur on Federally-owned Property (including Military Bases, JBSA), require Federal Permitting or involve Federal Funding?	