

**CPS ENERGY HABITAT CONSERVATION PLAN
ENVIRONMENTAL ASSESSMENT**

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ABBREVIATIONS

af/y	Acre-feet per year
Alternative A	Proposed Action: Issuance of section 10(A)(1)(B) Permit
Alternative B	No Action Alternative
APE	Area of potential effect
Applicant	CPS Energy
CCN	Certificate of convenience and necessity
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
Covered Activities	CPS Energy’s electric and gas operations for which CPS Energy is seeking incidental take authorization
Covered Species	Listed species that may be “taken” by the Covered Activities
CPS Energy Network	Infrastructure facilities owned, operated, or maintained by CPS Energy
EA	Environmental Assessment
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act of 1973, as amended
ETJ	Extra-Territorial Jurisdiction
FNL	Federal not listed
FPPA	Farmland Protection Policy Act
GCWA	Golden-cheeked warbler
HCP	Habitat Conservation Plan
I-	Interstate Highway
ITP	Incidental Take Permit
KFA	Karst Fauna Area
m	Meters
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
O&M	Operations and Maintenance
PAD-US	Protected Area Database – U.S.
Plan Area	The geographical area for which CPS Energy seeks incidental take coverage

Proposed Action	Issuance of section 10(A)(1)(B) Permit
PUC	Public Utility Commission of Texas
ROWs	Rights-of-way
Service	U.S. Fish and Wildlife Service
SEP-HCP	Southern Edwards Plateau Habitat Conservation Plan
SH	State Highway
ST	State listed threatened
SWCA	SWCA Environmental Consultants
TCEQ	Texas Commission on Environmental Quality
TFS	Texas A&M Forest Service
THC	Texas Historical Commission
TPWD	Texas Parks and Wildlife Department
TxDOT	Texas Department of Transportation
US	U.S. Highway
USC	United States Code
USGS	U.S. Geological Survey

CHAPTER 1. PURPOSE AND NEED

1.1 Introduction

This Environmental Assessment (EA) has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA; 42 United States Code [USC] 4321-4327) regarding the proposed issuance of an Incidental Take Permit (ITP) under section 10(a)(1)(B) of the Endangered Species Act of 1973, as amended (ESA) to CPS Energy (Applicant) for the construction, operation, maintenance, and emergency repair of the CPS Energy network. CPS Energy submitted a Habitat Conservation Plan (HCP) that proposes actions to minimize and mitigate incidental take of the golden-cheeked warbler (GCWA; *Setophaga [=Dendroica] chrysoparia*) and eight karst invertebrates (collectively, the “Covered Species”), all currently listed as endangered under the ESA.

Section 9 of the ESA prohibits “take” of wildlife species listed as endangered (16 USC 1538(a)), and this protection has been extended to most threatened wildlife species through regulation (50 Code of Federal Regulations [CFR] 17.31). Section 9 of the ESA does not prohibit take of listed plants; however, section 9 makes it unlawful to “remove and reduce to possession” or “maliciously damage or destroy” listed plants from “areas under Federal jurisdiction,” or to “remove, cut, dig up, or damage or destroy” listed plant species in violation of state criminal trespass law or knowing violation of any other state law (16 USC 1538[a][2]). “Take” of wildlife species is defined in section 3 of the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 USC 1532(19)). “Harm” is defined by U.S. Fish and Wildlife Service (Service) regulation as “an ESA which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering” (50 CFR 17.3).

CPS Energy is the nation’s largest municipally owned energy utility supplying both natural gas and electrical services to its customers in an area spanning approximately 1,514 square miles across 7 Texas counties, including the City of San Antonio (Service Area; Figure 1). CPS Energy also operates and maintains electric and gas transmission lines that extend outside of the Service Area (see Figure 1). As described in Section 2.1.2 of this EA, Covered Activities could incidentally take Covered Species via harm, as defined by federal regulation at 50 CFR 17.3. Incidental take via killing or wounding individual birds or invertebrates is also possible albeit unlikely with the application of CPS Energy’s proposed minimization and mitigation measures.

CPS Energy’s HCP describes the Covered Activities associated with the requested ITP and the measures CPS Energy would take to minimize and mitigate the impacts of the proposed taking to the maximum extent practicable and are also summarized in Section 2.1.1 below. Proposed conservation measures include permanent conservation through one or more of the following options: permittee-responsible mitigation lands, purchase of conservation credits from Service-approved conservation banks, participation within the Southern Edwards Plateau HCP (SEP-HCP), third-party mitigation transactions, or payment to fee-in-lieu programs.

This EA examines the impact that issuance of an ITP (Proposed Federal Action) is expected to have on the human environment, as well as the impacts associated with a reasonable range of alternatives to the Proposed Federal Action.

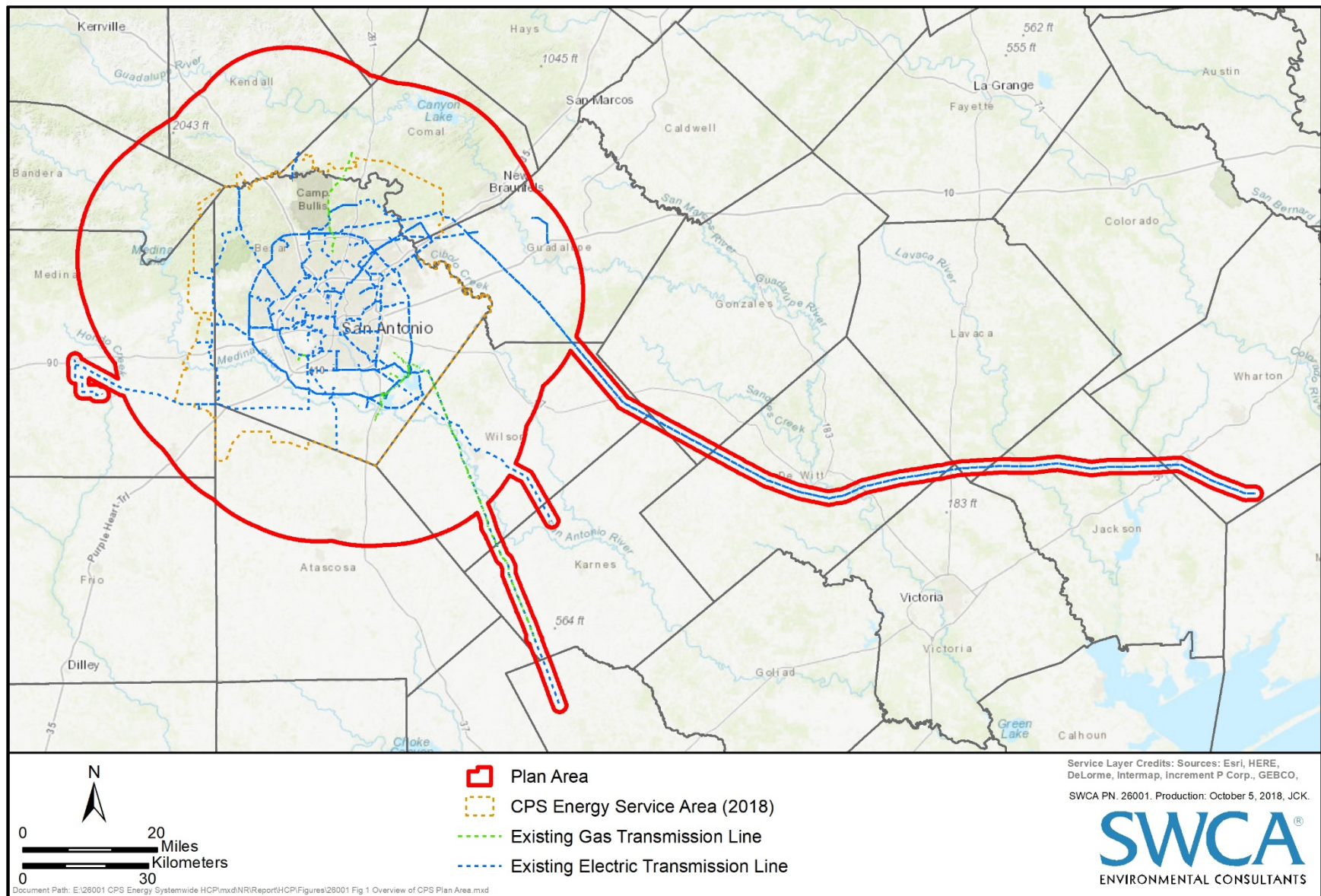


Figure 1. Plan Area.

1.2 Purpose and Need for the Proposed Federal Action

The purpose of the Federal action is to ensure that CPS Energy's HCP includes all elements as required by section 10(a)(2)(A) and meets the criteria listed in section 10(a)(2)(B) of the ESA. The Service's need for the proposed action is to respond to CPS Energy's HCP and application for an ITP related to CPS Energy's activities that have the potential to result in take of endangered species, pursuant to the ESA section 10(a)(1)(B) and its implementing regulations and policies. Once the Service receives an application for an ITP, the Service must review the application to determine if it meets issuance criteria. The Service also evaluates the impacts of the issuance of the ITP and implementation of the CPS Energy HCP pursuant to NEPA. If the HCP is consistent with issuance criteria, the Service must issue an ITP to CPS Energy to authorize incidental take of Covered Species that could, under certain circumstances, result from some Covered Activities during the Permit Term.

On December 28, 2017, the Service received an application from CPS Energy for issuance of the ITP under the authority of section 10(a)(1)(B) of the ESA. The application was accompanied by the CPS Energy HCP and other supporting documentation. If the application is approved and the Service issues the ITP, the ITP would authorize take of the Covered Species incidental to CPS Energy Covered Activities. The Service has prepared this EA to 1) inform the public of the Proposed Federal Action, 2) inform the public of the effects of the Proposed Federal Action on a range of reasonable alternatives, 3) seek information from the public, and 4) use information collected and analyzed to make informed decisions concerning the application for the ITP.

1.3 Decision to Be Made

Under provisions of the ESA, the U.S. Secretary of the Interior (through the Service) shall issue an ITP if the application conforms to the issuance criteria identified in section 10(a)(2)(B) of the ESA:

- The taking will be incidental;
- CPS Energy will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;
- CPS Energy will ensure that adequate funding for the HCP will be provided;
- The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild;
- CPS Energy will ensure that other measures that the Service may require as being necessary or appropriate will be provided; and,
- The Service has received such other assurances, as may be required, that the HCP will be implemented.

1.4 Public Involvement

CPS Energy submitted an initial ITP application, in conjunction with a draft HCP and draft EA, to the Service on December 28, 2017. After multiple rounds of comments, CPS Energy submitted a revised draft HCP and draft EA in the fall of 2020. The Service will request agency and public comment during a 30-day public review period. Comments received during that period will be reviewed and incorporated, as appropriate, within this EA.

1.5 National Historic Preservation Act and Tribal Consultation

The National Historic Preservation Act (NHPA) requires, among other things, that "[t]he head of any Federal agency having direct or indirect jurisdiction over a proposed...federally assisted

undertaking...and the head of any Federal department or independent agency having any authority to license any undertaking...shall take into account the effect of the undertaking on any historic property” (54 USC 306018) (hereafter, Section 106). The term “historic property” is defined by the NHPA as “any prehistoric or historic district, site, building structure, or object included on or eligible for inclusion on, the National Register, including artifacts, records, and material remains relating to the district, site, building, structure, or object” (54 USC 306108). Appendix A to the Service’s *Habitat Conservation Planning and Incidental Take Permit Processing Handbook* (HCP Handbook) provides guidance to the Service concerning compliance with the NHPA in connection with Service review of an application for an ITP (Service and National Marine Fisheries Service [NMFS] 2016). Appendix A to the HCP Handbook states that the Service considers the “undertaking” subject to NHPA compliance to be its “issuance of an [ITP] and the permittee’s covered activities described in the HCP under our direct jurisdiction” (Service and NMFS 2016). Appendix A also provides further guidance on the specific steps associated with NHPA compliance, including defining the appropriate area of potential effects and assessing potential effects to historic properties, among others.

Because of the programmatic nature of the requested ITP, neither the Service nor CPS Energy know the precise timing or location of the Covered Activities or the conservation measures benefitting the Covered Species. The following paragraphs describe the process CPS Energy would undertake with respect to individual projects receiving ESA authorization through the ITP to ensure impacts to cultural resources are considered and addressed (CPS Energy 2017).

- Once a route has been chosen for a project that would receive authorization through the ITP (or at the time CPS Energy determines that a certain non-exempt maintenance or operations project for existing infrastructure would receive authorization through the ITP), CPS Energy would determine and make a recommendation regarding the area of potential effect (APE) of the project, as that term is defined and interpreted under the NHPA and the Service’s HCP Handbook. The APE would include any areas of potential covered species habitat to be impacted plus areas where minimization and mitigation measures would be implemented.
- CPS Energy would determine whether any historic properties (e.g., National Register of Historic Places-listed or eligible historic properties) may be present in the project-specific APE, and would make such determination in compliance with the NHPA. Outreach would be made to any potentially affected Native American Tribes to review the activity and receive their comments. At all times, CPS Energy would remain in compliance with its ESA Permit.
- CPS Energy would notify the Service, Texas Historical Commission (THC), relevant Native American Tribes, and potentially other parties (such as the San Antonio Office of Historic Preservation) whether historic properties were identified within the APE.
- Where CPS Energy determines that any such properties are present but would not be adversely affected, CPS Energy would notify the Service, THC, any relative Native American Tribe(s), and any other relevant parties. Parties who have been notified have 30 days to provide CPS Energy with any written objections to the effects determination. Adverse effects determinations would be made in compliance with the NHPA and would consider, among other things, disturbances such as impacts to visual character.
- Where historic properties may be adversely affected by the covered project, CPS Energy would provide written notification to the above parties, which would also include a description of proposed measures to avoid, minimize, and mitigate any such adverse effects and a request for comment and coordination concerning such measures. Parties from whom CPS Energy has requested coordination would have 30 days to provide written response.
- Upon completion of the project-specific NHPA-guided coordination, CPS Energy would provide the Service written notice of the means by which CPS Energy addressed historic properties.

By implementing these steps, CPS Energy would assist the Service in sufficiently considering the effects of an undertaking on historic properties pursuant to Section 106.

CHAPTER 2. PROPOSED ACTION AND ALTERNATIVES

This chapter describes the two alternatives (Alternative A, the Proposed Action and Alternative B, No Action) developed for consideration in this EA. Several additional alternatives were considered but were eliminated from detailed evaluation; reasons for elimination are summarized in Section 2.4.

2.1 Alternative A – Issuance of section 10(A)(1)(B) Permit (Proposed Federal Action)

Alternative A is the Proposed Federal Action to issue a section 10(A)(1)(B) permit. Authorization of incidental take of Covered Species under this alternative, as described in Chapter 5 of the HCP, would be evaluated in terms of the habitat removal and habitat disturbance regarding Covered Species. With the issuance of a section 10(a)(1)(B) ITP, CPS Energy would implement the HCP to minimize and mitigate the impacts of the potential incidental take to the maximum extent practicable, as summarized in Section 2.1.4, below.

2.1.1 CPS Energy Activities

Collectively, the infrastructure facilities owned or otherwise operated or maintained by CPS Energy is referred to herein as the “CPS Energy Network.” CPS Energy activities are briefly described below and are described in greater detail in the HCP (Chapter 3).

2.1.1.1 NEW CONSTRUCTION

New construction activities would involve surface and subsurface disturbance to expand the CPS Energy Network via the construction of new facilities and infrastructure. CPS Energy activities related to new construction could include, but are not limited to: site preparation, access road construction, underground and aboveground construction, and post-construction activities.

New construction activities would require the presence of work crews and use of vehicles and heavy equipment for the duration of the project, ranging from a few hours to a few months. Substation construction would typically require the longest continuous activity in one location, lasting several months.

2.1.1.2 SIGNIFICANT UPGRADES

Significant Upgrades consist of major reconstruction, replacement, or improvement of existing facilities within the CPS Energy Network. CPS Energy activities related to Significant Upgrades could include, but are not limited to, the same types of actions as listed under New Construction. Similar to New Construction activities, construction associated with Significant Upgrades would typically affect only small segments of a linear facility for a short period of time. Significant Upgrades would also generally only affect isolated portions of existing infrastructure. For example, CPS Energy could choose to replace individual poles within an existing distribution line that are in poor working condition.

2.1.1.3 OPERATIONS AND MAINTENANCE

CPS Energy is responsible for the routine, regularly scheduled operations and maintenance (O&M) of the CPS Energy Network to ensure the reliability of its public utility services. CPS Energy activities related to O&M of the CPS Energy Network could include, but are not limited to: vegetation maintenance, access road maintenance, equipment maintenance, use and storage of chemicals, and facilities management.

O&M activities would require the occasional presence and activity of work crews, vehicles, and (in some cases) heavy equipment. Unlike construction activities, O&M activities typically would involve less intensive activity by humans and machinery, but could require a more consistent presence. For example, lighting and operation of facilities would occur continuously for the lifespan of the facility, whereas other

actions (e.g., vegetation maintenance) would only occur briefly during regularly scheduled or as-needed visits.

2.1.1.4 EMERGENCY RESPONSES

Given the nature of the CPS Energy Network, emergencies could arise that could have extremely detrimental and potentially life-threatening consequences. Activities necessary to respond to these emergencies would be consistent with the types of actions required for construction or O&M activities. However, depending on the nature and magnitude of the emergency Response, standard practices associated with planned or routine CPS Energy activities could not be practical or prudent for responding swiftly and effectively to the emergency. Where practicable, CPS Energy would conduct emergency response activities within existing rights-of-way (ROWs). However, in some instances, emergency responses could require actions outside of these areas.

2.1.1.5 GEOGRAPHIC EXTENT OF CPS ENERGY ACTIVITIES

A summary of maximum estimated disturbance of land (not limited to potential Covered Species habitat) from CPS Energy activities is provided in Table 1 and Chapter 3.2.6 of the HCP. Acres of disturbance are reported for lands that were previously unmodified (i.e., construction of a new transmission line that crosses undeveloped woodlands or native pasture) or lands that were previously modified by development, intensive agriculture, or other infrastructure facilities.

Table 1. Summary of the Geographic Extent of CPS Energy Activities over the ITP Term

CPS Energy Activity	Estimated Surface Disturbance (acres)		Estimated Subsurface Disturbance (acres)	
	<i>Previously Modified</i>	<i>Previously Unmodified</i>	<i>Previously Modified</i>	<i>Previously Unmodified</i>
New Construction Activities	11,970.3	12,151.0	0	1,026.7
Significant Upgrades	11,586.6	0	0	167.3
O&M Activities	104,136.8	0	2,262.0	0
Emergency Response Activities	78.1	26.0	1.7	0.6
TOTAL Disturbance over ITP Term	127,771.8	12,177.0	2,263.7	1,194.6

2.1.2 Covered Activities

The EA uses the term “Covered Activity” to describe one or more CPS Energy activities performed within a specific geographic area during a specific time, and for which CPS Energy would use the HCP and ITP to authorize incidental take of one or more Covered Species. It is important to note that most CPS Energy activities would not affect Covered Species; only those activities with reasonable certainty to cause incidental take and for which incidental authorization is not obtained through a separate permit or consultation pursuant to section 7 of the ESA would become Covered Activities.

2.1.3 Plan Area

The HCP Plan Area consists of CPS Energy’s Service Area, a corridor along CPS Energy’s other existing transmission lines that extend outside the Service Area, and the area within 15 miles of the current boundary of the City of San Antonio’s Extra-Territorial Jurisdiction (ETJ). The Plan Area encompasses approximately 4,488 square miles (2,872,494 acres) spanning some or all of 20 Texas counties (Atascosa, Bandera, Bee, Bexar, Blanco, Comal, DeWitt, Frio, Gonzales, Guadalupe, Jackson, Karnes, Kendall, Kerr, Lavaca, Live Oak, Medina, Victoria, Wharton, and Wilson; see Figure 1). The Plan Area extends beyond the Service Area to capture any potential growth of its Service Area and other operations, including implementation of the HCP, over the ITP term.

2.1.4 Incidental Take

Table 2 presents the maximum incidental take, by species, which would be authorized under the ITP. The actual number of acres removed or disturbed by the Covered Activities within areas of suitable habitat

may be less but would not be more than those identified in Table 2. If the amount of incidental take associated with any Covered Activity has the potential to exceed the maximum amount of incidental take authorized by the ITP for one or more of the Covered Species, then CPS Energy would be required to comply with the ESA by other means. Details on take estimation methods and assumptions are provided in Chapter 5 of the HCP. For the purposes of the HCP, incidental take of Covered Species is based on the acres of potential Covered Species habitat that may be impacted by Covered Activities. Impacts to habitat, therefore, are used as a surrogate by which to measure incidental take of Covered Species (see HCP Chapter 5 for further discussion).

Table 2. Maximum Incidental Take Authorized under the ITP

Covered Species	Habitat Removal ¹ (acres)	Habitat Disturbance ² (acres)	Total Requested Incidental Take Authorization (acres)
Golden-cheeked Warbler (<i>Setophaga chrysoparia</i>)	2,032.1	18,288.6	20,320.7
Madla's Cave Meshweaver (<i>Cicurina madla</i>)	18.3	183.2	201.5
Robber Baron Cave Meshweaver (<i>Cicurina baronia</i>)	29.5	73.7	103.2
Government Canyon Bat Cave Meshweaver (<i>Cicurina vespera</i>)	8.0	81.8	89.8
<i>Rhadine exilis</i> (an elongate ground beetle)	18.3	183.2	201.5
<i>Rhadine infernalis</i> (a robust ground beetle)	18.3	183.2	201.5
Government Canyon Bat Cave Spider (<i>Neoleptoneta microps</i>)	5.7	62.3	68.0
Cokendolpher Cave Harvestman (<i>Texella cokendolpheri</i>)	29.5	73.7	103.2
Helotes Mold Beetle (<i>Batrissodes ventyivi</i>)	8.0	85.7	93.7

1. This is GCWA habitat removed or subsurface impacts within karst habitat.

2. This is impacts to GCWA habitat within 300 feet of habitat removal or surface disturbance within karst habitat not directly associated with an occupied feature.

2.1.5 Conservation Program

2.1.5.1 MINIMIZATION MEASURES

Under Proposed Federal Action, CPS Energy would voluntarily commit to implement the following general measures as part of its Conservation Program for Covered Activities (see HCP Chapter 6.4 for additional details):

- Periodic education and training sessions for CPS Energy project designers on federal, state, and local environmental requirements and HCP/ITP requirements.
- Clearing or management of vegetation within ROWs using aboveground means when practicable to minimize surface and subsurface disturbances.
- Implementation of the City of San Antonio Oak Tree Ordinance and Texas A&M Forest Service (TFS) prevention of oak wilt measures (TFS 2015).
- Application of pesticides and herbicides pursuant to label requirements for dilution, application, disposing of rinse water, and disposing of empty containers.
- Revegetation and restoration of disturbed areas to preconstruction contours, as practical, using native species following completion of Covered Activity.
- Use of erosion and sediment controls in accordance with local and state regulations and industry best practices.
- Marking sections of existing transmission lines that become subject to Significant Upgrades and that are within the "80-mile" migration corridor to prevent collisions by whooping cranes.
- Implementation of specific measures described in Chapter 6.4 of the HCP for listed and proposed listed plant species.

Golden-cheeked Warbler Specific Measures

In addition to the above general minimization measures, CPS Energy would, to the maximum extent practicable during the conduct of a Covered Activity, perform vegetation clearing within GCWA habitat outside of the GCWA breeding season. In the relatively rare circumstances where CPS Energy determines that it is not practicable to perform vegetation clearing within GCWA habitat outside of the GCWA breeding season, CPS Energy would engage with the Service in advance of enrolling the CPS Energy activity to provide an explanation of its need to clear GCWA habitat during the GCWA breeding season and identify additional mitigation for those habitat modifications that occur as a result of vegetation clearing, as specified in HCP Chapter 6.5.3.

Karst Invertebrate Specific Measures

CPS Energy would implement the following measures, to the maximum extent practicable, to address impacts to Covered Karst Invertebrates (see HCP Chapter 6.6.3).

- Avoid subsurface disturbances within 50 feet of the entrance or footprint (if known) of a karst feature known or assumed to be occupied by one or more of the Covered Karst Invertebrates (i.e., an Occupied Karst Feature or an Assumed Occupied Karst Feature).
- 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. For each Occupied Karst Feature within 1,500 feet of a Covered Activity (including any such features detected within the ROW of the Covered Activity), CPS Energy would determine if the Occupied Karst Feature is an Approved Karst Fauna Area (KFA) or a Potential KFA. A Potential KFA is defined as an Occupied Karst Feature lacking development within 345 feet of the entrance or footprint (if known) and having at least 40 acres of undeveloped land contiguous with this core distance.
- Engage with the Service in advance of enrolling any CPS Energy activity 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 or Assumed Occupied Karst Feature, or within designated Critical Habitat for the Covered Karst, or within an approved or potential KFA.
- Removal of vegetation from the area within 50 feet of the entrance or footprint (if known) of an Occupied Karst Feature or Assumed Occupied Karst Feature would be minimized.

2.1.5.2 MITIGATION MEASURES

CPS Energy would provide mitigation to offset the impacts of incidental take resulting from Covered Activities. The delivery of mitigation by CPS Energy would involve one or more of the following options: permittee-responsible mitigation lands, purchase of conservation credits from Service-approved conservation banks, participation within the SEP-HCP, third-party mitigation transactions, or payment to a fee-in-lieu program, if one exists. CPS Energy could choose to use one or more of these options to satisfy its mitigation obligations, subject to Service approval. CPS Energy would obtain the required mitigation prior to implementing the Covered Activities, except in cases of emergency response (HCP Chapter 6.7).

In most cases, CPS Energy would assess and track the implementation of mitigation for each Covered Species in terms of the number of “Conservation Credits” generated. CPS Energy anticipates that for GCWAs, one Conservation Credit is generally equivalent to 1 acre of the protection and maintenance of suitable habitat on new conservation lands, or 0.5 Conservation Credit for 1) each acre of non-habitat “buffer” that occurs adjacent to areas of habitat within a preserve, or 2) acres of GCWA habitat that occur adjacent to an unprotected preserve boundary. CPS Energy has also committed to use the Southern Edwards Plateau HCP to obtain incidental take authorization for listed karst invertebrates when

enrollment in that plan is available. With respect to the Covered Karst Invertebrates, CPS Energy would prioritize mitigation opportunities that contribute to the creation of an approved KFA or expansion of an existing KFA, subject to the availability of practicable mitigation opportunities. If this opportunity is not available, 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. Generally, one acre of protection and management of karst zone equals one Conservation Credit. Details on conservation credit are described in CPS Energy HCP Chapter 6.7.

2.1.6 Monitoring, Reporting, and Adaptive Management

CPS Energy would request a meeting with the Service each year to discuss upcoming CPS Energy activities, updated distribution or occurrence information for Covered Species, opportunities for mitigation, and other concerns. CPS Energy anticipates that annual coordination meetings would occur in December or January, after the finalization of CPS Energy's fiscal year business plan and corresponding with the start of a new fiscal year.

Over the duration of the ITP, the Service's Austin Ecological Services Field Office would also receive a report of HCP-related activities from CPS Energy by March 31st of each year. This annual report would document compliance with the terms and conditions of the ITP and measure progress towards achieving the Biological Goals and Objectives (see Chapter 8.2 in the HCP for detail on annual reporting requirements).

CPS Energy would identify opportunities for adaptive management decision-making as they arise over time and coordinate directly with the Service to identify an appropriate response, if warranted (see HCP Chapter 8.6 for the Adaptive Management Program). All adaptive management decision-making would comply with the No Surprises Assurances (see HCP Chapter 9) and would not require any additional obligation of land, water, or financial compensation from CPS Energy.

2.1.7 Funding

CPS Energy would fund its mitigation obligations from the construction budgets for new and significant upgrade projects enrolled in the HCP. Mitigation associated with O&M and emergency responses would be included in the ongoing management budgets for the CPS Energy Network. On an annual basis, CPS Energy would project its mitigation needs for the coming year and provide the Service with a Certificate of Funding Assurances stating that: 1) CPS Energy has funding sufficient to cover all costs associated with the performance of its mitigation obligations that are required for the year in which the certification is made; and 2) that CPS Energy would perform all activities required by the HCP and ITP.

The average annual cost to implement the HCP is estimated at \$1,339,968 (see HCP Chapter 7.0 for a detailed cost breakdown).

2.1.8 Changed Circumstances

The HCP identifies provisions to address potential changes in circumstances that could affect Covered Species (e.g., a change in listing status). If circumstances were to change, CPS Energy would implement the changed circumstances provisions included in the HCP (HCP Chapter 9.1).

2.2 Alternative B – No Action Alternative

NEPA requires evaluation of a "no action" alternative, which serves as a baseline for comparison of potential project effects. Under the no action alternative, the Service would not issue the requested ITP and CPS Energy would not implement the Conservation Program described in the HCP. However, CPS Energy is still required to comply with all local, state, and federal laws, including the ESA. Therefore, CPS Energy would obtain authorization from the Service for projects that would cause incidental take via

other means, including an individual ITP, authorization through an existing programmatic ITP, or pursuant to an incidental take statement under ESA section 7. Assessing each project on a project-by-project basis would be fiscally burdensome and inefficient for both CPS Energy and the Service. Any delays in project construction due to lengthy ITP processing times could jeopardize CPS Energy's ability to provide efficient, safe, and reliable service to its customers, resulting in additional costs to consumers and a potential for human safety concerns. The project-by-project compliance approach could also result in isolated, independent areas of mitigation that may not be as large or contiguous for the Covered Species. Moreover, reviewing each project over the 30-year life of the requested ITP would result in a tremendous burden on the Service's resources.

2.3 Alternatives Eliminated from Further Analysis

NEPA regulations (40 CFR 1502.14[c])¹ require consideration of "reasonable" alternatives, but those alternatives must be practical or feasible from the technical and economic standpoint. As a result of an extensive coordination effort between the Service and CPS Energy during the development of the HCP, a wide range of alternatives were generated for consideration. The majority of alternatives considered but dismissed from detailed analysis were related to alternatives to CPS Energy's proposed approach—such as changes to Plan Area, Covered Species, or CPS Energy activities—but that would still meet issuance criteria. A summary of these alternatives and rationale for dismissal is provided in Appendix A.

¹ On July 16, 2020, the Council on Environmental Quality (CEQ) published final regulations revising NEPA implementing regulations. These final regulations altered not only the substance of the previous regulations, but also altered the numbering of various sections of those regulations. While this EA references the previous version of CEQ's NEPA implementing regulations, it nevertheless fulfills the statutory requirements set forth in NEPA and complies with both the July 16, 2020 update to NEPA regulations and the regulations that were in effect prior to that date.

CHAPTER 3. AFFECTED ENVIRONMENT

3.1 Introduction

The affected environment describes the current environmental conditions for resources within the Plan Area. Discussion of resources is restricted to those that would be affected by the Proposed Federal Action. Resources that were dismissed from analysis are addressed in Section 3.1.2.

For consistency with the HCP, this EA uses the HCP's Plan Area for analysis purposes, which consists of a 4,488-square-mile (2,872,494-acre) area spanning some or all of 20 Texas counties within which Covered Species and other affected resources could be affected due to habitat removal or habitat disturbance associated with the Proposed Federal Action.

3.1.1 Resources Analyzed in this Environmental Assessment

The Service reviewed all human environment² resources to determine which resources could be affected by the Proposed Federal Action and should be carried forward in this EA for further detailed analysis. In accordance with Council on Environmental Quality (CEQ) NEPA guidance, this EA is “analytic rather than encyclopedic,” discusses impacts proportionally to their significance, and only briefly discusses impacts that are not significant (40 CFR 1502.2[a] [b]). The resources identified with the potential to be significantly affected by the Proposed Federal Action, either adversely or beneficially, are described in greater detail later in this section and analyzed in detail in Section 4.

3.1.2 Resources Not Considered for Detailed Analysis

Table 3 lists the resources that have not been carried forward for further analysis in this EA and includes a brief explanation why each resource listed has not been carried forward for further review. Per the HCP Handbook, “The extent of the [Service’s] environmental review under NEPA is dictated by the environmental effects triggered by the federal action – issuance of the ITP and required conservation actions of the HCP” (Service and NMFS 2016). The HCP Handbook also notes, “It is critical to the NEPA process that we [the Service]... do not unnecessarily analyze impacts that are not a result of our action and over which we do not have regulatory authority...we must consider whether the federal action, in this case the ITP, is the legally relevant cause of the effects which must be analyzed.”

3.2 Aesthetic Resources

The Plan Area encompasses approximately 4,488 square miles (2,872,494 acres) spanning some or all of 20 Texas counties and includes a complex variety of landscape types, e.g., plains, valleys, agricultural lands, and developed areas, etc.—each type possessing a range of aesthetic values: from visually sensitive areas (generally undeveloped and mostly appearing natural) to visually non-sensitive (developed and mostly appearing non-natural). The geographic scale of the Plan Area does not allow for site-specific aesthetic descriptions. Therefore, this section summarizes the affected aesthetic environment through a broad-scale review of public parks and other publicly accessible protected areas as described in the Protected Area Database – U.S. (PAD-US) (Table 4) (U.S. Geological Survey [USGS] 2016). Federal entities own approximately 2.3 percent of the Plan Area, mostly under the Department of Defense (USGS 2016). State and local government entities own approximately 1.4 percent of the Plan Area (USGS 2016).

² The human environment is defined by CEQ as the natural and physical environment, and the relationship of people with that environment (1508.14).

Table 3. Resources Dismissed from Analysis

Issue	Rationale
Air Quality, Land Use, Public Health and Safety/Hazardous Materials, Recreation, Soils and Geology, Energy, Transportation and Utilities	<p>The Service has determined that several issues do not have a “reasonably foreseeable causal connection” to the Proposed Federal Action (Service and NMFS 2016). Proposed incidental take and Applicant proposed minimization/mitigation measures would not measurably alter ongoing or future land uses, air quality, recreation access or opportunities, soils and geology, traffic, utilities or energy development, or hazardous materials within the Plan Area. Detailed rationales, by issue, are provided below:</p> <ul style="list-style-type: none"> • Air Quality and Soils and Geology: Physical resources could be temporarily affected during construction activities. However, effects would be restricted to site-specific locations and implementation of erosion control measures, best management practices, and post-construction revegetation efforts would further minimize project-related impacts. Therefore, potential impacts of the Proposed Federal Action would not rise above the insignificant level for these resources. • Land Use and Recreation: Routing and siting for the Proposed Action would be consistent with the requirements set for public infrastructure projects by the Public Utility Commission of Texas (PUC) to avoid conflicts with land uses (e.g., encouraging the paralleling or utilization of existing transmission line ROWs, paralleling of existing roadways, railroads, and other utility ROWs, and paralleling of property lines and other natural or cultural features). • Public Health and Safety/Hazardous Materials: Covered Activities would comply with all the applicable local, state, and federal health and safety requirements and standards. Routing and siting would follow existing utility easements, rights-of-way, and property lines clear of hazards and hazardous materials. CPS Energy would evaluate any new easements or land acquisitions for hazards or hazardous materials and address any issues identified accordingly. For this reason, any potential impacts of the Proposed Action would not rise above the insignificant level for this resource. • Energy: Implementation of the HCP would not alter energy demand or supply by CPS Energy and their customers. The HCP would only facilitate the implementation of Covered Activities to achieve CPS Energy’s energy goals. However, if the ITP were not issued, CPS Energy could still meet customer energy needs through alternative avenues (including an individual ITP, authorization through an existing programmatic ITP, or pursuant to an incidental take statement under ESA section 7). For this reason, any potential impacts of the Proposed Action would not rise above the insignificant level for this resource. • Transportation and Utilities: The Proposed Action would be consistent with existing utilities and infrastructure. As noted above, routing and siting would be consistent with the requirements set for public infrastructure projects by the Public Utility Commission of Texas (PUC) (e.g., encouraging the paralleling or utilization of existing transmission line ROWs, paralleling of existing roadways, railroads, and other utility ROWs, and paralleling of property lines and other natural or cultural features). For this reason, any potential impacts of the Proposed Action would not rise above the insignificant level for this resource.
Agricultural Lands	<p>The Natural Resources Conservation Service (NRCS) characterizes eligible farmland as being “prime,” or “unique” or of “statewide or local importance.” The designations are based on NRCS soil types and are protected by Federal and state legislation. Soils considered to be prime, unique, and/or of statewide importance are present within the Plan Area. However, Part 523.10 of the Farmland Protection Policy Act (FPPA) Manual stipulates that projects are only subject to FPPA requirements if they may irreversibly convert farmland to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency. Per NRCS direction (NRCS 2018), activities not subject to FPPA include federal permitting or licensing actions. Since the Service’s jurisdiction is restricted to issuance of an ITP if the application conforms to the issuance criteria identified in section 10(a)(2)(B) of the ESA, the Project is not subject to FPPA requirements and the issue was not carried forward for further analysis.</p>
Coastal Management Zones and Coastal Resources	<p>The Plan Area is not located within a coastal zone or coastal barrier, with the exception of an existing transmission line in Jackson County (Texas General Land Office 2017). Since maintenance of the transmission line would occur within existing rights-of-way and would not further modify or remove coastal resources, analysis of this resource is not performed in this EA.</p>
Cultural Resources	<p>Section 1.5 of the EA describes the process CPS Energy would undertake with respect to individual projects receiving Act authorization through the ITP to ensure impacts to cultural resources are considered and addressed. Where historic properties may be adversely affected by a Covered Activity, CPS Energy would provide written notification and identify measures to avoid, minimize, and mitigate any such adverse effects. By implementing these steps, CPS Energy would assist the Service in sufficiently considering and addressing the effects of an undertaking on historic properties pursuant to Section 106. Therefore, this resource was not carried forward for analysis.</p>
Edwards Aquifer-Dependent Species	<p>There are seven federally listed Edwards Aquifer-dependent species that could be affected by activities over the aquifer and its contributing zone: San Marcos salamander [<i>Eurycea nana</i>], Texas blind salamander [<i>Eurycea rathbuni</i>], Texas wild-rice [<i>Zizania texana</i>], fountain darter [<i>Etheostoma fonticola</i>], Comal Springs dryopid beetle [<i>Stygoparnus comalensis</i>], and Peck’s Cave amphipod [<i>Stygobromus pecki</i>]. Covered Activities do not include in-stream work and are not expected to be conducted adjacent to either the San Marcos or Comal springs, where these species occur. Additionally, given the linear nature of most of the Covered Activities, activities are only expected to negligibly change the recharge potential of the Edwards</p>

Issue	Rationale
	Aquifer and are not expected to markedly degrade local water quality (see Water Resources below). Therefore, this issue was not carried forward for further analysis.
Water Resources, including Floodplains	<p>Neither the authorization of incidental take of Covered Species, nor the implementation of the minimization and mitigation measures of the HCP is expected to affect water resources. CPS Energy has not identified any specific projects to be covered under the ITP. However, should any covered projects involve regulated impacts to surface water resources, CPS Energy would be required to obtain a Section 404 Clean Water Act permit and to comply with Texas Commission on Environmental Quality (TCEQ) water quality requirements. Any potential surface water impacts would be analyzed in accordance with the Clean Water Act during the appropriate permit application processes.</p> <p>Covered Activities would not withdraw water from Plan Area aquifers and all applicable rules and restrictions related to the Edwards Aquifer recharge, contributing, and transition zones would be followed; including erosion and sediment control measures to protect the local and regional water quality in these zones. The requested amount of incidental take of each Covered Karst Invertebrate would range from 68.0 to 201.5 acres. This amount of take represents a small proportion of both the total amount of potential habitat for these species (i.e., no more than 0.1 percent) and total habitat within Karst Zones 1 and 2 (i.e., no more than 2.0 percent) (SWCA Environmental Consultants [SWCA] 2020). Therefore, the amount of potential recharge zone affected by Covered Activities would be negligible compared to the total amount of recharge area available for aquifer systems in the state. No measurable alteration of aquifer recharge capacity would be likely to occur, and the likelihood of groundwater contamination would be minimal. Contamination may occur from accidental spills, or during emergency situations where storm water control measures may not be practical to install prior to the Covered Activity. Because these are exceptional conditions, they are not expected to occur regularly or to result in pronounced degradation of groundwater locally or regionally.</p> <p>CPS Energy would also follow their routing and siting guidance to identify and avoid lands within the 100-year floodplain, where possible, for all projects covered under the HCP. Similarly, the Federal Emergency Management Agency regulates construction within designated floodplains and CPS Energy would be required to coordinate with the local floodplain manager and permit project activities accordingly.</p> <p>Therefore, potential impacts would not rise above the insignificant level for this resource.</p>
Wilderness/Wild and Scenic Rivers/Other Ecologically Critical Areas	The Plan Area does not contain any designated ecologically critical areas, wild and scenic rivers, or other unique natural resources of concern that could be impacted by the Proposed Action. Therefore, these topics were not carried forward for analysis.

Table 4. Potential Visually Sensitive Areas

Ownership Type	Property Types	Geographic Representation (percent of Plan Area)
Federal		2.30
<i>Bureau of Reclamation</i>	Recreation Management Area	0.03
<i>National Park Service</i>	National Historical Parks	0.02
<i>U.S. Army Corps of Engineers</i>	Recreation Reservoirs	0.69
<i>Natural Resources Conservation Service</i>	Conservation Easements	0.01
<i>Department of Defense Military Lands</i>	Forts and Bases	1.55
State	Parks, Natural Areas, Historic Sites	0.56
Regional Agency Special Districts	Conservation Areas, Parks, Recreation Areas	0.01
County and City	Historical and Cultural Areas, Conservation Areas, Parks, Recreation Areas, Easements, Watershed Protection Areas	0.81
Non-Governmental Organizations	Conservation Areas, Conservation Easements	0.16
Private	Parks	0.02

3.3 Covered Species

The CPS Energy Systemwide HCP identifies nine Covered Species, of which all are currently listed as federally endangered. Table 5 lists the Covered Species by taxon and the current listing status of each species. Species descriptions are provided in the CPS Energy HCP Chapter 5.

Table 5. List of Covered Species

Common Name	Scientific Name	Federal Listing Status
COVERED BIRD SPECIES		
Golden-cheeked warbler	<i>Setophaga [=Dendroica] chrysoparia</i>	Endangered
COVERED KARST INVERTEBRATES		
Madla's Cave meshweaver	<i>Cicurina madla</i>	Endangered
Robber Baron Cave meshweaver	<i>Cicurina baronia</i>	Endangered
Government Canyon Bat Cave meshweaver	<i>Cicurina vespera</i>	Endangered
A ground beetle	<i>Rhadine exilis</i>	Endangered
A ground beetle	<i>Rhadine infernalis</i>	Endangered
Government Canyon Bat Cave spider	<i>Tashyneta [=Neoleptoneta] microps</i>	Endangered
Cokendolpher Cave harvestman	<i>Texella cokendolpheri</i>	Endangered
Helotes mold beetle	<i>Batrissodes venyivi</i>	Endangered

3.4 Federally Listed Plant Species

One federally listed plant species (Table 6) was determined to be likely to occur within the Plan Area but was not included as a Covered Species because CPS Energy is implementing measures that it expects would minimize or avoid any impacts from Covered Activities. For example, prior to enrolling an activity in the HCP, CPS Energy would request plant locations from the Service and TPWD that may be within the project area and would avoid those locations, to the extent practicable. CPS Energy would 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 would 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 would 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.

Table 6. Federally Listed Plant Species with Potential to be Present in Plan Area

Species Common Name (Scientific Name)	Counties of Known or Potential Occurrence within the Plan Area *	Current Listing Status †	Species Description
Tobusch fishhook cactus (<i>Sclerocactus brevihamatus</i> ssp <i>tobuschii</i>)	Bandera, Kendall, Kerr, Medina	FE, SE	A small, inconspicuous cactus of the western Edwards Plateau; typically occurs on flat to gently sloping hilltops but may also occur on more level areas on steeper rocky slopes and in rocky floodplains (Service 1987; Poole et al. 2007).

* From Service (2020)

† FE=federally listed endangered; SE=state listed endangered

3.5 Other Wildlife Species

3.5.1 General Wildlife

Representative wildlife associated with the five ecoregions in the Plan Area, as described in Wilken et al. (2011), are summarized in Table 7 below.

Table 7. Wildlife Species with Potential to be Present in Plan Area

Ecoregion	Species Description
Edwards Plateau	Wildlife species found in this ecoregion include white-tailed deer (<i>Odocoileus virginianus</i>), javelina (<i>Tayassu tajacu</i>), bobcat (<i>Lynx rufus</i>), coyote (<i>Canis latrans</i>), badger (<i>Taxidea taxus</i>), ringtail cat (<i>Bassariscus astutus</i>), porcupine (<i>Erethizon dorsatum</i>), nine-banded armadillo (<i>Dasypus novemcinctus</i>), brown mink, Llano pocket gopher (<i>Geomys texensis</i>), Mexican free-tailed bat (<i>Tadarida brasiliensis</i>), Rio Grande turkey (<i>Meleagris gallopavo intermedia</i>), scaled quail (<i>Callipepla squamata</i>), mourning dove (<i>Zenaida macroura</i>), Texas map turtle (<i>Graptemys versa</i>), Rio Grande perch (<i>Herichthys cyanoguttatus</i>), Guadalupe bass (<i>Micropterus treculii</i>), widemouth blindcat (<i>Satan eurystomus</i>), and Comal blind salamander (<i>Eurycea tridentifera</i>).
Texas Blackland Prairie	Species found in the region include coyote, ringtail cat, armadillo, raccoon (<i>Procyon lotor</i>), skunk (<i>Mephitis spp.</i>), eastern cottontail rabbit (<i>Sylvilagus floridanus</i>), plains pocket gopher (<i>Geomys bursarius</i>), turkey vulture (<i>Cathartes aura</i>), lark sparrow (<i>Chondestes grammacus</i>), northern cardinal (<i>Cardinalis cardinalis</i>), mourning dove, and Texas toad (<i>Anaxyrus speciosus</i>).
East Central Texas Plains	The East Central Texas Plains region provides habitat for species including white-tailed deer, javelina, coyote, ringtail cat, raccoon, Virginia opossum (<i>Didelphis virginiana</i>), bobcat, nine-banded armadillo, black-tailed jackrabbit (<i>Lepus californicus</i>), eastern cottontail rabbit, Cooper's hawk (<i>Accipiter cooperii</i>), mockingbird (<i>Mimus polyglottos</i>), scaled quail (<i>Callipepla squamata</i>), white-winged dove (<i>Zenaida asiatica</i>), and mourning dove.
Southern Texas Plains	Species typical of the region include white-tailed deer, javelina, coyote, ringtail cat, ocelot (<i>Leopardus pardalis</i>), nine-banded armadillo, Texas pocket gopher (<i>Geomys personatus</i>), Mexican ground squirrel (<i>Ictidomys mexicanus</i>), plain chachalaca (<i>Ortalis vetula</i>), green kingfisher (<i>Chloroceryle americana</i>), greater roadrunner (<i>Geococcyx californianus</i>), Mississippi kite (<i>Ictinia mississippiensis</i>), northern bobwhite (<i>Colinus virginianus</i>), white-winged dove (<i>Zenaida asiatica</i>), green jay (<i>Cyanocorax yncas</i>), mourning dove, mesquite lizard (<i>Sceloporus grammicus</i>), and Laredo striped whiptail (<i>Cnemidophorus laredoensis</i>).
Western Gulf Coastal Plains	Wildlife associated with this ecoregion include white-tailed deer, ocelots, coyote, ringtail cat, nine-banded armadillo, javelina, swamp rabbit (<i>Sylvilagus aquaticus</i>), American alligator (<i>Alligator mississippiensis</i>), ferruginous pygmy-owl (<i>Glaucidium brasilianum</i>), green jay, Altimira oriole (<i>Icterus gularis</i>), and a variety of ducks and geese.

3.5.2 Migratory Birds

The Migratory Bird Treaty Act of 1918 (MBTA) (16 USC 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the U.S. Department of the Interior. Migratory birds include neotropical (long-distance) and temperate (short distance) migrants, as well as resident species. The wildlife habitats in the Plan Area provide suitable breeding, nesting, feeding, foraging, resting, and/or roosting habitat for a number of migratory bird species groups. These groups include wading birds (e.g., egrets and herons), shorebirds (e.g., sandpipers and plovers), seabirds (e.g., gulls and terns), marsh birds (e.g., rails and coots), waterfowl (e.g., ducks and geese), cormorants, kingfishers, and land birds, which include raptors (e.g., eagles, hawks, falcons, vultures, and owls), gallinaceous birds (e.g., turkey and quail), pigeons and doves, nightjars (e.g., nighthawks), cuckoos and allies (e.g., roadrunners), and numerous passerines (e.g., sparrows, warblers, flycatchers, finches, jays, and wrens).

3.5.3 State-Listed Species

Table 8 lists four state-listed species that were determined as likely to be exposed to, and potentially impacted by, Covered Activities. Table 8 excludes any species that are also federally listed. The reader is referred to Appendix D of the HCP for the complete list of evaluated species and rationale for inclusion or exclusion in this EA.

Table 8. State-listed Species with Potential to be Present in Plan Area

Species Common Name (Scientific Name)	Counties of Known or Potential Occurrence within the Plan Area	Current Listing Status †	Species Description
AMPHIBIANS			
Sheep frog (<i>Hypopachus variolosus</i>)	Karnes, Bee, Live Oak	FNL, ST	The sheep frog spends most of its time in burrows. Its breeds opportunistically with rainfall between March to September and feeds on ants and termites (LaDuc and Cannatella 2020).
REPTILES			
Texas horned lizard (<i>Phrynosoma cornutum</i>)	Atascosa, Bandera, Bee, Bexar, Blanco, Comal, DeWitt, Frio, Gonzales, Guadalupe, Jackson, Karnes, Kendall, Kerr, Lavaca, Live Oak, Medina, Victoria, Wharton, Wilson	FNL, ST	The Texas horned lizard occupies arid and semiarid habitats in areas with sparse vegetative cover where their diet is made up almost exclusively of ants (Texas Parks and Wildlife Department [TPWD] 2021b). When inactive, individuals burrow into the soil, enter rodent burrows, or hide under rocks (Hammerson 2007).
Texas scarlet snake (<i>Cemophora coccinea lineri</i>)	Jackson	FNL, ST	Texas scarlet snakes found mainly in sandy thickets along the Gulf Coast (LaDuc and Cannatella 2020).
Texas tortoise (<i>Gopherus berlandieri</i>)	Atascosa, Bee, Bexar, Frio, Guadalupe, Medina, Wilson, DeWitt, Gonzales, Karnes, Lavaca, Victoria, Jackson, Live Oak	FNL, ST	The smallest species of tortoise in North America, this species reaches up to 23 centimeters and is restricted to the southern tip of Texas and northern Mexico. Found in the scrub and brushlands of Texas, the Texas tortoise prefers habitat with sandy, well-drained soils (LaDuc and Cannatella 2020). Active during the day, this species feeds on the fruit of prickly pear and other succulent plants (TPWD 2017b).

† ST=state listed threatened, FNL=federal not listed.

3.6 Socioeconomics and Environmental Justice

From 2010 to 2016, Plan Area counties experienced an average 9 percent increase in population, ranging from 1 percent (Wharton County) to 27 percent (Kendall County). Population density in the Plan Area is highest in Bexar County (U.S. Environmental Protection Agency [EPA] 2020), with this county experiencing a 16.8 percent increase in population between 2010 and 2019 (U.S. Census Bureau 2020). Long-term population estimates (2016–2050) suggest even greater (23 percent average) future growth in the Plan Area, again with the greatest growth expected to occur in and directly adjacent to Bexar County, as well as nearby counties along I-10 and I-35 (Texas Demographic Center 2017).

Demographic information available through the EPA (2020) indicates that five counties exceed state average (57 percent) for the percentage of minority residents that make up the total population: Atascosa (66 percent), Bee (68 percent), Bexar (72 percent), Frio (84 percent), and Karnes (62 percent) Counties. In all counties, Hispanic or Latino residents make up the largest proportion of minority residents. Seven counties have a higher percentage of low-income residents than the state average (36 percent): Atascosa (37 percent), Bee (46 percent), Bexar (38 percent), Frio (49 percent), Gonzales (41 percent), Karnes (37 percent), and Wharton (42 percent) Counties.

The population of Bexar County predominantly consists of persons identifying as one or more minority groups (72 percent), with persons identifying as Hispanic or Latino (60 percent) as the dominant minority group (EPA 2020). Other minority groups make up less than 10 percent of the Bexar County Population, including those identifying as Black/African-American (7 percent), American Indian and Alaska Native (<1 percent), Asian (3 percent), Native Hawaiian and Other Pacific Islander (<1 percent), and multi-

ethnicity (<1 percent). Regarding populations below poverty levels, the northern half of Bexar County and the adjacent portions of Medina, Kendall, and Guadalupe Counties have relatively lower (e.g., ≤ 10 percent) percentages of the population below the poverty line compared to the southwestern portions of Bexar County and adjacent Frio and Atascosa Counties (EPA 2020).

3.7 Vegetation

The Plan Area includes over 130 classifications of vegetation but is dominated by Post Oak Savanna: Savanna Grassland, (17 percent), Urban Low Intensity (10 percent), Blackland Prairie: Disturbance or Tame Grassland (7 percent), Edwards Plateau: Ashe Juniper Motte and Woodland (6 percent), Edwards Plateau: Live Oak Motte and Woodland (6 percent), and Edwards Plateau: Savanna Grassland (6 percent). These vegetation types are generally common across the state of Texas (TPWD 2014).

Post Oak Savanna: Savanna Grassland occurs in the East Central Texas Plains, South Texas Plains, and Texas Blackland Prairie. These grasslands are a combination of woody and herbaceous vegetation cover types, dominated by little bluestem (*Schizachyrium scoparium*), Indiangrass (*Sorghastrum nutans*), and switchgrass (*Panicum virgatum*). Blackland Prairie: Disturbance or Tame Grassland is also a dominant vegetation type where the Plan Area overlaps the Texas Blackland Prairie ecoregion and is minimally present in the other ecoregions as well. Disturbance or Tame Grassland is dominated by non-native grasses such as bermudagrass (*Cynodon dactylon*), kleingrass (*Panicum coloratum*), King Ranch bluestem (*Bothriochloa ischaemum*), and Johnsongrass (*Sorghum halepense*) (TPWD 2017a).

The Edwards Plateau: Ashe Juniper Motte and Woodland, Edwards Plateau: Live Oak Motte and Woodland, and Edwards Plateau: Savanna Grassland are all dominant vegetative cover in the Edwards Plateau ecoregion and minimally present in the South Texas Plains and Texas Blackland Prairie. The Ashe Juniper Motte and Woodland is a relatively closed woodland dominated by Ashe juniper (*Juniperus ashei*). The Live Oak Motte and Woodland is a similarly closed woodland with an overstory of plateau live oak (*Quercus fusiformis*), but other species including white shin oak (*Quercus sinuata* var. *breviloba*), cedar elm (*Ulmus crassifolia*), Texas oak (*Quercus buckleyi*), hackberry (*Celtis* spp.), Lacey oak (*Quercus laceyi*), post oak (*Quercus stellata*), and Vasey shin oak (*Quercus vaseyana*) may also be prevalent. The Savanna Grassland is generally a mix of woodlands, shrublands, and grasslands dominated by little bluestem, purple threeawn (*Aristida purpurea*), Texas wintergrass (*Nassella leucotricha*), and sideoats grama (*Bouteloua curtipendula*), but King Ranch bluestem and bermudagrass are also common (TPWD 2017a).

Urban low intensity occurs in all ecoregions and includes areas that are built-up but not entirely covered with impervious surfaces and makes up most of the areas within cities and towns.

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1 Definitions

NEPA requires that agencies include a detailed statement of, among other things, the environmental impact of the proposed action and a description of adverse environmental effects that could not be avoided should the proposed action be implemented (42 USC 4332).

Former NEPA regulations also indicate agencies should identify three types of effects: direct, indirect, and cumulative (40 CFR 1508.8). Revised implementing regulations for NEPA (Federal Register Vol. 85, No. 7) no longer subdivide effects terms into “direct,” “indirect,” or “cumulative” categories. Instead, new guidance states that agencies should focus on effects³ that are “reasonably foreseeable” and have a close causal relationship to the proposed action. As previously noted, while this EA references definitions under the previous CEQ’s NEPA implementing regulations, the EA complies with both the July 16, 2020 update to NEPA regulations and the regulations that were in effect prior to that date.

4.2 Impact Estimation Approach

This EA tiers to the incidental take estimates and effects discussion in the CPS Energy HCP to describe and quantify impacts to Covered Species. Based on current and proposed NEPA regulations, this NEPA analysis is limited to only those resources that would be impacted by CPS Energy’s proposed incidental take of Covered Species habitat and implementation of the Conservation Program. Therefore, this EA assumes that impacts to all other resources would be limited to the extent of take for Covered Species habitat.

4.3 Significance

Former NEPA regulations defined significance as being a function of both context and intensity. Context encompasses the significance of the action, while intensity refers to the severity of the impact (40 CFR 1508.27[a] [b]). Revised implementing regulations for NEPA (85 FR 7) modified this language to evaluate significance based on analysis of the potentially affected environment and degree of the effects of the action. As previously noted, while this EA references definitions under the previous CEQ’s NEPA implementing regulations, the EA complies with both the July 16, 2020 update to NEPA regulations and the regulations that were in effect prior to that date.

In this EA, the intensity, or degree, of potential impacts are described based on a scale ranging from negligible to significant (Table 9). The purpose of establishing this impact framework is two-fold: 1) to provide a uniform method for assessing effects over a variety of resources; and 2) to provide a clear and concise means of categorizing potential effects for the public and agency decision-maker.

Table 9. Impact Classification

Impact Classification	Definition
Negligible	Effects on the evaluated resource are so small as to be often undetectable.
Minor	Effects on the evaluated resource are detectable but fall well below the identified threshold(s) for the resource. * Applicant proposed mitigation measures may reduce minor effects to a negligible impact.

Impact Classification	Definition
Moderate	Effects on the evaluated resource are readily apparent with a measurable change from baseline conditions but would remain below the identified threshold(s) for the resource and would recover within a moderate amount of effort or time. *Applicant proposed mitigation measures may reduce moderate effects to a minor or negligible impact.
Significant	Effects on the evaluated resource would exceed the identified threshold(s) for the resources and require extensive restoration or Applicant proposed mitigation to offset adverse impacts. * Applicant proposed mitigation measures may reduce significant project to a moderate or minor impact.

This EA also uses thresholds of significance to determine when a significant impact would occur to a particular resource. Thresholds are most often based on legal regulatory standards. However, when a regulatory threshold or other applicable standard does not exist for a particular environmental resource, then a threshold can be developed from applicable studies, surveys, reports, or other associated data. Table 10 provides a summary of the thresholds of significance utilized in this EA.

Table 10. Summary of Environmental Resource Thresholds

Environmental Resource	Regulatory Source(s)	Threshold(s) of Significance
Aesthetics	None	Results in substantial degradation of public views and scenery.
Biological Resources	Endangered Species Act Executive Order (EO) 13112, Invasive Species TPWD regulations Migratory Bird Treaty Act Bald and Golden Eagle Protection Act	Result in incidental take of federal or state-listed species. Result in substantial modification to existing vegetation communities or wildlife abundance, composition, or distribution. Result in the introduction of invasive species, which could cause adverse environmental effects. Adverse modification of designated critical habitat as defined in the ESA implementing regulations. Non-compliance with Texas Parks and Wildlife Code, the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act.
Socioeconomics and Environmental Justice	EO 12898, Environmental Justice	Results in disproportionately high and adverse impacts to environmental justice communities.

4.4 Other Reasonably Foreseeable Projects

The Proposed Federal Action is issuance of an ITP under section 10(a)(1)(B) of the ESA that would authorize take of the Covered Species over a period of 30 years. This EA also examines other likely trends and reasonably foreseeable projects that could, along with the Proposed Federal, cumulatively result in adverse effects to the human environment. For example, transportation, water, energy, etc. Appendix B provides a more comprehensive list of some of the types of projects and plans within the Plan Area that are likely to occur during the 30-year ITP.

4.5 Aesthetic Resources

4.5.1 Alternative A – Proposed Action

Take associated with Covered Activities, including the construction of new overhead transmission lines and towers or poles, electric substations and switching stations, and access roads, has potential to impact aesthetics. These actions could result in vegetation removal or modification; surface disturbance; temporary and local emissions of fugitive dust, and increased human presence, such as additional vehicle or equipment use and night-time lighting. Impacts would begin with construction during the initial site

preparation and could persist long-term within line-of-sight areas, until the site was revegetated. Up to 21,247.5 acres of take are estimated to occur aboveground under the Proposed Action.

The intensity of aesthetic impacts from these short- to long-term actions would vary based on site-specific conditions. Factors that influence the magnitude of aesthetic changes are tied to the current condition of the area impacted (e.g., extent of existing impacts such as other utility lines, density of vegetation that might affect visibility, local topography, visibility). Vegetation changes that occur a greater distance from publicly accessible vantage points, or in areas with limited visibility due to available lighting, existing vegetation, or local topography would result in fewer impacts to viewers. This EA assumes that impacts would be most severe when a viewer is able to clearly see vegetation changes from a visually sensitive publicly accessible protected area (i.e., federal, state, or local parks or other protected lands identified in Section 3.2). However, given the uncertainty surrounding the exact location of Covered Activities, it is not currently possible to identify which public protected areas might be affected.

Because of the low occurrence of visually sensitive areas within the Plan Area and considering Covered Activities would predominately occur on private lands, most aesthetic impacts are not anticipated to occur within visually sensitive, publicly accessible areas. Over 90 percent of total estimated surface disturbance associated with CPS Energy activities is anticipated to occur within previously disturbed settings (see Section 2.1.1.5), and only a portion of these activities could reasonably result in take that would be covered under the HCP. Proposed minimization measures in the HCP could also reduce visual impacts through efforts to minimize surface disturbance and removal of woody vegetation.

Additionally, Public Utility Regulatory Act Section 37.056 (c)(4)(C) includes “historical and aesthetic values” as a factor in granting or denying a certificate of convenience and necessity (CCN). The Public Utility Commission of Texas (PUC) may evaluate aesthetic values differently in any given case, but typically considers factors such as length of proposed transmission line within the foreground visual zone (0.5 mile unobstructed) of parks and recreational areas, US and state highways, and FM roads. The PUC’s routing criteria in 16 Tex. Admin. Code 25.101(b)(3)(B) are designed to moderate impacts on the affected community and landowners, to the extent possible, by encouraging the paralleling or utilization of existing transmission line ROWs, paralleling of existing roadways, railroads, and other utility ROWs, and paralleling of property lines and other natural or cultural features. Therefore, aesthetic impacts associated with the Proposed Federal Action would likely be minor to moderate, depending on their location.

4.5.2 Alternative B – No Action Alternative

Under the No Action Alternative, the Service would not issue the requested ITP and CPS Energy would be responsible for compliance with the ESA on a project-by-project basis. This EA assumes that all forecasted future development would still occur and surface disturbance would be as described in Section 2.1.1.5. Because CPS Energy would perform the same types of activities described in Alternative A, Alternative B would likely result in similar impacts to aesthetic resources. Therefore, impacts would be minor to moderate, and short- to long-term in duration.

Under the No Action Alternative, CPS Energy would not provide minimization or Applicant proposed mitigation for incidental take of Covered Species habitat through implementation of the HCP. If individual ITP(s) or section 7 consultations are sought for project-specific activities, then CPS Energy would be required to provide project-specific minimization and/or mitigation measures to offset incidental take pursuant to Sections 7 and 10 of the ESA and relevant regulations. Because any minimization or Applicant proposed mitigation measures would be at a smaller, project-specific scale, and could be less comprehensive compared to a programmatic ITP, this EA anticipates that aesthetic resources could experience a reduced benefit from minimization and mitigation measures under Alternative B when compared to the Proposed Federal Action.

4.5.3 Cumulative Impacts

Past and present actions have contributed to changes in the Plan Area viewshed due to a variety of factors, such as population growth and urban/suburban/extra-urban development, energy development, agricultural operations, water development, and infrastructure growth (Appendix B). Future development and urbanization, as indicated by projected population increases (see Section 3.6) could result in additional conversion from natural to more developed views within the Plan Area.

The Proposed Federal Action (Alternative A) would contribute to cumulative aesthetic effects in the Plan Area through the construction, operation, and maintenance of CPS Energy activities that are covered under the HCP. However, the Service expects that CPS Energy activities would generally occur in response to current customer needs, and therefore are likely to occur on or near already developed landscapes. Additionally, Proposed Action visual effects could be reduced relative to the No Action Alternative (Alternative B), due to implementation of the Conservation Program (Section 2.1.5). The minimization and Applicant proposed mitigation provided under the HCP would also result in potential for management of existing conservation lands and protection of larger, contiguous tracts of land with greater conservation value than would be achieved if similar acreage were protected on a project-by-project basis. Therefore, cumulative impacts to aesthetics would be long-term but minor.

4.6 Covered Species

4.6.1 Golden-cheeked Warbler

4.6.1.1 ALTERNATIVE A – PROPOSED ACTION

Table 11 summarizes the anticipated maximum amount of GCWA take associated with Covered Activity habitat removal or disturbance over the 30-year ITP. Estimated take would impact 5.7 percent of the approximately 353,735 acres of seasonally occupied GCWA habitat in the Plan Area. Less than 1 percent of the available seasonally occupied GCWA habitat in the Plan Area would be subject to habitat removal (i.e., loss). All remaining habitat would be subject to disturbance associated with habitat fragmentation and edge effects, as further described below. Under this alternative, CPS Energy would also implement all conservation measures described in the HCP. Therefore, effects would be short- and long-term, and minor to moderate.

Table 11. Estimated Golden-cheeked Warbler Habitat Removal and Disturbance over ITP Term

Planning Sector*	Habitat Removal (acres)	Habitat Disturbance (acres)
UC	0 acres	0 acres
NC	0 acres	0 acres
NO	2,257.9 acres	20,320.7 acres
SO	0 acres	0 acres
TOTAL	2,257.9 acres	20,320.7 acres
-10 percent Adjustment for Participation in the Southern Edwards Plateau HCP	2,032.1	18,288.6
* UC = Urban Core sector; NC = North-Central sector; NO = Northern sector; SO = Southern sector		

Habitat Removal from Covered Activities

The estimated 2,032.1 acres of maximum take from habitat removal could result in death or injury if relatively non-mobile (i.e., viable eggs, nestlings, or recently fledged juveniles) individuals are present at the same time and generally in the same place as the Covered Activity. We would expect adults and mobile juveniles to flee from disturbance and avoid physical encounters with machinery or falling trees that could kill or wound them. Because GCWAs are only present in the Plan Area during their breeding

season (March 1 to August 1) and CPS Energy would focus their habitat removal activities outside of the breeding season, we expect direct contact to be minimal (i.e. during emergency work). Even with Covered Activities performed outside of the breeding season, we would expect harm due to permanently removed habitat, which can cause GCWAs to expend extra energy looking for a new territory. Take associated with Covered Activities that create noise and other activity disturbances, such as light, movement, and vibrations, also have the potential to disrupt the essential breeding, feeding, and/or sheltering behaviors of GCWAs. Some studies indirectly suggest that GCWAs are adversely affected by the presence of land uses with high levels of human activity, such as residential development (Groce et al. 2010). In contrast, other studies (e.g., Beale 2007; Benson 1995; Lackey et al. 2012) have found that exposure to noise or activity does not always result in significant changes to the behavior of GCWA. For actions of short duration or minor intensity, such as routine O&M, affected GCWA might not alter behavior or could quickly return to normal behavior once the activity is complete. For activities of longer duration, affected individuals could 1) remain in place and continue their activities as normal; 2) remain in place with a degraded ability to feed, tend to nests or fledglings, or maintain normal grooming standards that causes a decline in fitness or reproductive success; 3) move to a different area of habitat (on a temporary or permanent basis) where it continues to carry out its essential behaviors without a significant decline in fitness or reproductive success; or 4) be fully displaced from its territory and be unable to feed, breed, or shelter successfully (an outcome that could lead to death or injury). Overhead electric transmission and distribution lines could pose a risk that could result in the death or wounding of an individual GCWA. However, GCWAs typically fly below or only slightly above the tops of trees when moving from tree to tree through their territories. Trees in habitats used by GCWAs are usually less than 30 feet tall, although deciduous trees (e.g., cedar elm), if present along creeks, can sometimes reach heights of 50 to 60 feet on the eastern edge of their breeding range (Ladd and Gass 1999; P. Sunby, SWCA Environmental Consultants [SWCA], personal observation). CPS Energy's electric transmission lines are typically 100 to 120 feet high and electric distribution lines are typically 38 feet high, with conductors strung between the poles at similar heights. Thus, the conducting wires would generally be above the height at which GCWAs typically fly when in their habitat.

GCWAs are active during the day, do not perform aerial displays, and are not expected to fly well above tree height at times when visibility conditions are extremely poor (Ladd and Gass 1999; Shackelford et al. 2005). It is also expected that the birds would fly through trees to escape any predator that might actively pursue them (e.g., a sharp-shinned hawk [*Accipiter striatus*]) rather than fly up and away from trees (Ladd and Gass 1999). Consequently, the conducting wires associated with Applicant facilities are expected to be visible to GCWAs at those times when birds can be expected to be flying above canopy height, and the birds are not expected to be flying in the general vicinity of wires when under duress or distracted. Other infrastructure, such as fencing and light poles, would also likely be visible to, and avoided by, flying GCWAs.

Habitat Disturbance from Covered Activities

The estimated 18,288.6 acres of maximum take associated with GCWA habitat disturbance could displace returning GCWAs from their former territories, resulting in potential for decreased fitness or reproductive output of the displaced individual and other individuals using habitats that receive displaced GCWAs. Similar outcomes are also possible for GCWAs that are forced to adjust territory boundaries to address reduced habitat area or quality. However, GCWAs have been documented dispersing up to 10 miles between years (City of Austin et al. 2012), meaning they have the potential to access a very large area in search for appropriate replacement habitat.

Covered Activities could result in habitat fragmentation leading to habitat patch sizes below the thresholds where continued breeding, feeding, and/or sheltering activity is likely. Habitat occupancy and reproductive success for GCWAs appear to be associated with a minimum habitat patch size (Arnold et al. 1996; Butcher et al. 2010; Campomizzi et al. 2012). Therefore, fragmentation could lead to reduced

occupancy or reproductive success. Fragmentation could also increase the species' exposure to potential edge effects. Researchers (e.g., Coldren 1998) have documented that conditions at the edge of GCWA habitat patches could influence the occupancy, territory distribution, territory size, pairing success, and reproductive success of the species. The density of forest edge within 330 feet of a GCWA nest has also been shown to influence nest survival, such that nest survival was higher in areas with less forest edge (Peak 2007; Reidy et al. 2009). Increased edge effect could also potentially decrease food availability and increase nest predation (particularly by snakes and birds, such as crows and jays). However, not all studies have found a relationship between GCWA habitat patch size and parasitism, predation, or prey biomass (Butcher et al. 2010; Reidy et al. 2008).

4.6.1.2 ALTERNATIVE B – NO ACTION ALTERNATIVE

Alternative B would result in the same types of habitat removal and disturbance to GCWA as described for Alternative A. Therefore, effects could be short- or long-term and minor to moderate. However, CPS Energy would not provide mitigation or implement minimization measures described in the HCP. If an individual ITP is sought under this alternative, then CPS Energy would be required to provide project-specific minimization and mitigation measures, as required under ESA Section 10. These measures have not been identified at this time but would be commensurate with the impacts of the taking. Because any mitigation would be at a project-specific scale (versus the programmatic ITP), this EA anticipates that GCWAs would experience a reduced benefit, as compared to the Proposed Federal Action.

4.6.1.3 CUMULATIVE IMPACTS

The predominant impacts to GCWA would be the removal or disturbance of suitable habitat for the GCWA from Covered Activities. Past and present actions as described in Section 4.5.3 have contributed incrementally to changes in the Plan Area that removed or disturbed potentially suitable habitat for the GCWA. Reasonably foreseeable future actions in the Plan Area include additional water and energy development, urban development, and road maintenance and construction activity, as well as ongoing agriculture (Appendix B). These activities have not been quantified but are expected to result in further elimination or replacement of suitable habitat with impervious cover or nonnative vegetation. Likewise, some individuals could be harmed or killed due to collision with vehicles or aboveground infrastructure associated with future actions. When considering the Proposed Federal Action (Alternative A) in aggregate with the past, present, and reasonably foreseeable future actions, the changes in the Plan Area are anticipated to contribute to reasonably foreseeable trends in removal or disturbance of suitable habitat for GCWA, and harm or mortality of individual GCWAs within the Plan Area.

However, the contribution of the Proposed Federal Action (Alternative A) to the cumulative impacts would be reduced relative to the No Action Alternative (Alternative B) due to implementation of the Conservation Program across the Plan Area, as described in the HCP (Section 2.1.5). Under the No Action Alternative (Alternative B), the cumulative impacts to potentially suitable habitat of the GCWA is anticipated to be relatively greater due to piecemeal mitigation that could occur during project-specific permitted actions.

4.6.2 Karst Invertebrates

4.6.2.1 ALTERNATIVE A – PROPOSED ACTION

Table 12 summarizes the anticipated maximum amount of karst invertebrate take, by species, which could result from surface and subsurface disturbance as a result of Covered Activities over the 30-year ITP. The total requested maximum amount of incidental take of each Covered Karst Invertebrate would range from 68.0 to 201.5 acres. The maximum amount of requested incidental take associated with surface disturbances and subsurface disturbances for Covered Karst Invertebrates would range from 62.3 to 183.2 acres and 5.7 to 29.5 acres, respectively (see Table 12). This amount of take represents a small proportion of both the total amount of potential habitat for these species (i.e., no more than 0.2 percent) and total habitat within Karst Zones 1 and 2 (i.e. no more than 2.0 percent). Under this alternative, CPS Energy

would also implement all conservation measures described in the HCP. Therefore, effects would be short- and long-term, and minor to moderate.

Table 12. Incidental Take for the Covered Karst Invertebrates Over the ITP Term.

Species	Incidental Take Request (acres)			Incidental Take as Percentage of Potential Habitat (all Karst Zones)	Incidental Take as Percentage of Potential Habitat (Karst Zones 1 and 2 Only)
	Surface Disturbance	Subsurface Disturbance	Total Disturbance		
Madla's Cave Meshweaver (<i>Cicurina madla</i>)	183.2	18.3	201.5	0.08	0.15
Robber Baron Cave Meshweaver (<i>Cicurina baronia</i>)	73.7	29.5	103.2	0.10	2.00
Government Canyon Bat Cave Meshweaver (<i>Cicurina vespera</i>)	81.8	8.0	89.8	0.06	0.16
<i>Rhadine exilis</i> (an elongate ground beetle)	183.2	18.3	201.5	0.08	0.08
<i>Rhadine infernalis</i> (a robust ground beetle)	183.2	18.3	201.5	0.08	0.15
Government Canyon Bat Cave Spider (<i>Neoleptoneta microps</i>)	62.3	5.7	68.0	0.11	0.11
Cokendolpher Cave Harvestman (<i>Texella cokendolpheri</i>)	73.7	29.5	103.2	0.10	2.00
Helotes Mold Beetle (<i>Batrisodes ventyivi</i>)	85.7	8.0	93.7	0.11	0.17

Effects of Subsurface Disturbances from Covered Activities

Covered Activities would involve disturbances of vegetation and soil within the limits of CPS Energy ROWs; the excavation of bedrock within the limits of the trenches, tunnels, and bore pits; and the installation of the underground utility lines. Therefore, it is possible for Covered Activities involving excavation, tunneling, boring, or grading to modify occupied subsurface habitat. Subsurface activities could result in take, i.e. habitat removal and death or injury to an individual Covered Karst Invertebrate, if such individual was present at the same time and location as subsurface activities. However, take associated with subsurface disturbance would be limited, ranging from 5.7 to 29.5 acres, per species.

Additionally, the likelihood of such harm to individual Covered Karst Invertebrates is not certain since the distribution of habitable void spaces is inconsistent across the Plan Area; activities may occur within areas mapped as Karst Zone 1 through 4 without encountering a listed karst invertebrate. Further, Covered Karst Invertebrates do not necessarily occupy all potential habitat (Service 2015; Zara Environmental 2011). In general, presence/absence survey data to-date indicate that the likelihood of encountering an individual Covered Karst Invertebrate at the same time and place as active excavation work is very low (e.g., Zara Environmental 2013; Service 2011). Applicant crews are also trained to immediately stop work when they encounter any caves when working in Karst Zones 1 through 4 (Juan Sandoval, CPS Energy, personal communication to Amanda Aurora, SWCA, on September 24, 2018).

Excavation activities could disturb Covered Karst Invertebrate habitat and individuals by altering the stable physical environment of the cave ecosystem. Alterations could include increasing the number of cave entrances, which could have a drying effect, increasing sedimentation, and changing water drainage patterns to the system. The reach of any such effects into adjacent habitats is unknown and likely dependent on the particular size, shape, preexisting climate, and other characteristics of the feature. Anecdotally, there is evidence suggesting that temporary openings of karst voids (over days or even weeks) might not significantly disrupt the essential behaviors of Karst Invertebrates to an extent that results in actual death or injury (Zara Environmental 2013).

Covered Activities could also remove void spaces, if present, rendering them unavailable for use by the Covered Karst Invertebrates. In this way, it is possible that the Covered Activities could remove habitable

void spaces or fragment previously connected void spaces, or both. It is not known if or to what degree this potential habitat loss or fragmentation would alter the behavior of the Covered Karst Invertebrates, since 1) the actual presence of occupied habitat in the excavation areas may not be known; 2) the form or extent of any connectivity among habitable void spaces that may intersect the excavation areas are not known; and 3) how individuals of the karst invertebrates move within and among areas of potential habitat, and how much time they spend there, is not known (Service 2011).

Effects of Surface Disturbances from Covered Activities

Covered Activities could result in surface disturbance from vegetation clearing, soil disturbance, temporary placement of excavated material or fill, dust control, bank stabilization, and soil/vegetation restoration. The Service (2011) recognizes a variety of potential effects resulting from surface activities, although uncertainty regarding the location of Covered Karst Invertebrates over both time and space prevent determinations regarding the significance of these impacts (Table 13). Additionally, take associated with surface disturbance would be limited, ranging from 62.3 to 183.2 acres, per species.

Table 13. Potential Surface Disturbance Effects Associated with Covered Activities

Issue (Service 2011)	Discussion
Cave Collapse and Altered Drainage Patterns	Construction or significant upgrades that cover a cave entrance, collapse a cave, or alter the surface drainage patterns of occupied habitat could occur as part of Covered Activities. However, risk for these impacts is considered low since 1) most CPS Energy activities have a relatively narrow linear footprint that CPS Energy could strategically route to reduce the likelihood of covering or collapsing cave entrances, 2) foundations for power poles or towers would be small and sited to avoid caves; 3) state and local regulations would require compliance with the Edwards Aquifer rules, and 4) CPS Energy would conduct an annual coordination meeting with the Service to review upcoming projects and their proximity to known features.
Contamination	Accidental spills or releases of petroleum products or hazardous materials during conduct of the Covered Activities could occur but are considered highly unlikely and would be promptly addressed through spill control measures. Therefore, risk of Covered Karst Invertebrate death, wounding, or harm from contamination is considered to be low.
Surface Vegetation Changes	Covered Activities could remove or modify previously undisturbed karst habitat via changes to land cover. Due to the limited amount of estimated take (see Table 12), surface vegetation changes would not be expected to significantly alter nutrient input to cave systems. Denudation of the plant community and soil disturbances associated with the Covered Activities may be temporary in areas where land cover consists of herbaceous or shrub vegetation, since these areas would be restored post-construction by replacing topsoil and revegetating with native plants. In the small portions of ROWs where land cover is dominated by tree cover, subsequently converted to herbaceous vegetation, and located in an area with previously undisturbed underlying karst features, these features may experience changes in temperature or nutrient inputs.
Red Imported Fire Ants	Any increase in red imported fire ants associated with Covered Activities could impact Covered Karst Invertebrates by resulting in increased potential for predation or harm from increased resource competition.
Tawny Crazy Ants	An increase in tawny crazy ants (<i>Nylanderia fulva</i>) associated with Covered Activities could impact Covered Karst Invertebrates by resulting in increased potential for predation or increased resource competition (LeBrun 2017).

4.6.2.2 ALTERNATIVE B – NO ACTION ALTERNATIVE

Alternative B would result in the same types of habitat removal and disturbance to Covered Karst Invertebrates as described for Alternative A. Therefore, effects could be short- or long-term and minor to moderate. However, CPS Energy would not provide mitigation or implement minimization measures as described in the HCP. If an individual ITP is sought under this alternative, then CPS Energy would be required to provide project-specific minimization or mitigation measures to offset take. These measures have not been identified at this time but would be commensurate with the impacts of the taking. Because any mitigation would be at a project-specific scale (versus the programmatic ITP), this EA anticipates that Covered Karst Invertebrates would experience a reduced benefit, as compared to the Proposed Federal

Action, which is expected to mitigate in potentially larger parcels and creating or contributing to approved KFAs.

4.6.2.3 CUMULATIVE IMPACTS

The predominant impact to Covered Karst Invertebrate habitat would be the removal or disturbance of suitable habitat from implementation of Covered Activities and would comprise no more than a 0.2 percent reduction in potential habitat for these species. Past and present actions as described in Section 4.5.3 have contributed incrementally to changes in the Plan Area that removed or disturbed potentially suitable habitat for the Covered Karst Invertebrates. Reasonably foreseeable future actions in the Plan Area include additional water and energy development, urban development, and road maintenance and construction activity, as well as ongoing agriculture (Appendix B). These activities have not been quantified, but are expected to result in further elimination or disturbance habitat from grading and excavation for new roads; trenching for the installation of underground utilities; and the clearing of land for construction of houses, commercial buildings, and parking lots.

When considering the Proposed Federal Action (Alternative A) in aggregate with the past, present, and reasonably foreseeable future actions, the changes in the Plan Area are anticipated to contribute to cumulative removal or disturbance of suitable habitat for Covered Karst Invertebrates, of which some would occur in areas with undemonstrated or low likelihood of being occupied. However, the Proposed Federal Action (Alternative A) would contribute relatively less to the cumulative impacts in the Plan Area through a programmatic ITP and a Conservation Program spanning all Covered Activities in the Plan Area as compared to the No Action Alternative.

4.7 Federally Listed Plant Species

4.7.1 Alternative A – Proposed Action

Potential impacts to the Tobusch fishhook cactus (*Sclerocactus brevihamatus ssp tobuschii*) are primarily associated with the alteration or removal of habitat during Covered Activities. Covered Activities would remove or disturb up to a conservatively estimated 21,247.5 acres of surface terrestrial habitat that could potentially support the federally listed plant species. Since the cactus typically occurs within grassy or rocky openings in woodland (TPWD 2021a), Covered Activities that clear woodland or forest could provide minor benefits for the cactus by creating openings in formerly wooded areas. . Similarly, control of woody vegetation within ROWs during O&M activities would also help maintain existing open habitat for the species. However, these actions could also increase the risk of individual cacti being damaged or destroyed by construction activities and vehicle traffic. CPS Energy would restore all disturbed areas—replacing topsoil and seeding with native plants—immediately following construction to reduce potential erosion impacts, promote revegetation, and facilitate natural succession to promote recovery from Covered Activity disturbances. CPS Energy would also implement the following minimization measures specifically targeted to reduce impacts to federally listed plants that could occur within the Plan Area (see Chapter 6.4 in the CPS Energy Systemwide HCP for details):

- request from the Service and the TPWD Texas Natural Database information on previously documented locations of federally listed plants and plants proposed for federal listing in the Plan Area prior to enrolling CPS Energy activities in the HCP;
- to the extent practicable, 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; and
- to the extent practicable, set mowing heights in such areas to the approximate aboveground height of the plant species; and
- specific to the Tobusch fishhook cactus, mowing height would be no less than 5 inches.

If above measures are not practicable, CPS Energy would provide notice and engage with the Service in advance of enrolling a Covered Activity in the HCP to identify what additional minimization measures, if any, may be reasonable and prudent to avoid the likelihood of jeopardizing the continued existence of the federally listed or proposed for listing plant species. Examples of additional measures could include performing surveys to map the locations of individual plants, salvage collection of individual plants from the ROW and relocation to a Service-approved site or repository, or avoidance of surface disturbances during the plant's flowering season.

Given the limited extent of habitat disturbance associated with Covered Activities, coupled with CPS Energy's Conservation Program, any adverse impacts to Tobusch fishhook cactus would likely be short- to long-term, minor, and not of a magnitude that would threaten the ability of this species to survive in the wild.

4.7.2 Alternative B – No Action Alternative

Alternative B would result in the same types of habitat removal and disturbance to the Tobusch fishhook cactus. Therefore, impacts to Tobusch fishhook cactus would be similar to those described for Alternative A: minor and short- to long-term. However, under the No Action Alternative, CPS Energy would not provide minimization and mitigation through implementation of the CPS Energy HCP. The ESA does not prohibit "take" of listed plant nor is an ITP or mitigation required for a listed plant (Service and NMFS 2016). For any Tobusch fishhook cactus located in an area under federal jurisdiction, CPS Energy could coordinate with the Service on project-specific minimization to avoid jeopardizing the continued existence of this species.

4.7.3 Cumulative Impacts

Implementation of the Covered Activities could result in habitat removal and disturbance to federally listed plants within the Plan Area over the 30-year term of the ITP. However, because these impacts are anticipated to occur under any of the alternatives, including the No Action Alternative, implementation of the HCP and ITP would not measurably impact federally listed plants when considered in conjunction with other past, present, and reasonably foreseeable projects in the Plan Area. Other potential reasonably foreseeable trends in the Plan Area include additional energy development (oil and gas, pipelines, transmission), residential development, and road maintenance and construction activity, as well as ongoing agriculture (Appendix B). These activities have not been quantified but are expected to result in further elimination or replacement of federally listed plant species. Likewise, some individuals could be damaged or destroyed due to human disturbance, trampling by vehicles, or aboveground infrastructure associated with future actions. Anticipated land development over the next 30 years would convert currently undeveloped open space possibly used by federally listed plants to developed land uses. As previously described, these changes are more likely around rapidly growing urban centers, along the I-10 and I-35 corridor.

When considering the Proposed Federal Action (Alternative A) in aggregate with the past, present, and reasonably foreseeable future actions, the changes in the Plan Area are anticipated to contribute to cumulative elimination or replacement of federally listed plant species. However, the Proposed Action Alternative (Alternative A) could contribute relative less cumulative habitat loss, injury or mortality to the Tobusch fishhook cactus as compared to No Action Alternative (Alternative B), due to the implementation of proposed minimization measures across the Plan Area. Under the No Action Alternative (Alternative B), project-specific minimization measures to reduce impacts may only occur in areas under Federal jurisdiction.

4.8 Non-Federally Listed Species

4.8.1 Alternative A – Proposed Action

4.8.1.1 GENERAL WILDLIFE

Over a 30-year period, up to 21,247.5 acres of take via surface habitat removal or disturbance could occur from Covered Activities, which could eliminate terrestrial wildlife habitat or convert it to other vegetation types. General wildlife in the immediate area could experience a slight loss of cover, nesting, or forage material during some Covered Activities; however, the prevalence of similar habitats in the Plan Area and regrowth of herbaceous vegetation in the ROWs following new construction or significant upgrades would minimize the long-term effects of this loss.

Habitat removal or disturbance could also displace individuals in the vicinity, potentially forcing them into competition with residents of adjacent habitat for available resources. This displacement could produce short-term changes in localized species composition (Adams and Geis 1981) or lead to reduced physical condition and health of affected individuals. Take associated with Covered Activities would predominately displace species using forested or woodland habitats, which account for roughly 12 percent of the Plan Area's vegetation. Therefore, adjacent habitat would likely be available for use for any displaced individuals. Grassland and shrub/scrub-dependent wildlife species would be expected to re-populate ROWs and other temporary construction areas once activities are complete and herbaceous vegetation has recovered.

It is possible that some small, low-mobility or underground species such as some amphibians, reptiles, and mammals, could be killed by heavy machinery or vehicle activity during Covered Activities. However, the use of vehicles and machinery as part of the Covered Activities would generally be confined to CPS Energy's ROWs that are accessed and traversed by way of gravel roads or unpaved vehicle trails with likely low travel speeds. The low speed of travel could help minimize collision-related death or wounding of these individuals. Larger, more-mobile terrestrial species such as birds, deer, foxes, and squirrels would likely be able to avoid such impacts. The clearing of vegetation at the width needed to conduct the Covered Activities (i.e., generally less than 150 feet) would also not be expected to create a barrier to movement for highly mobile animals such as birds (Fahrig and Rytwinski 2009). Additionally, Covered Activities could introduce pollutants such as oil and grease originating from machinery and construction-related activities, fugitive dust, infestation of the red imported fire ant, proliferation of exotic plant species, and sedimentation. However, these disturbances would be minimized by the implementation of spill prevention and control methods, proper inspection and maintenance of equipment, and proper runoff and erosion control measures. As soon as practical after construction is complete, exposed soils would be stabilized and re-seeded with native plants.

The amount of forested or woodland areas lost or fragmented due to Covered Activities would depend on the projects enrolled in the HCP. However, up to 20,320.7 acres of take associated with GCWA habitat removal or disturbance (consisting of relatively mature and closed-canopy, juniper-oak woodlands) would be authorized if the HCP is approved. Forest habitat fragmentation can have a detrimental effect on avian species with a marked preference for large undisturbed forested tracts through increased predation, brood-parasitism, and other impacts on nesting success (Robbins et al. 1989; Faaborg et al. 1992; Terborgh 1989). In contrast, long-term conversion of woodlands to open grass/shrublands within ROWs could improve the cover or forage habitat for some edge species, such as the eastern cottontail or white-tailed deer (Adams and Geis 1983).

O&M activities would predominantly consist of vegetation trimming/pruning and mowing, which would maintain herbaceous habitats within the ROW. As previously noted, more mobile species would be expected to move out of the area to avoid harm, whereas less mobile species would be more susceptible to harm or mortality from maintenance activities. In general, O&M activities would be of short duration, and unlikely to result in changes to wildlife species composition and community dynamics.

Under the Proposed Federal Action, CPS Energy would provide mitigation for take of Covered Species habitat through implementation of the HCP. Therefore, although the intent of the proposed mitigation is to protect Covered Species, other general wildlife could also experience a benefit. Based on above considerations, wildlife habitat removal and disturbance would be localized, short-term, and minor.

4.8.1.2 MIGRATORY BIRDS

TPW Code Section 64.002, regarding protection of nongame birds, provides that no person may catch, kill, injure, pursue, or possess a bird that is not a game bird. TPW Code Section 64.003, regarding destroying nests or eggs, provides that, no person may destroy or take the nests, eggs, or young and any wild game bird, wild bird, or wild fowl.

Birds protected by the MBTA occur in every habitat type in the United States, and nests may be found in trees and on forest floors, in grassland or shrubland, uplands, and wetlands. Take associated with Covered Activities has the potential to destroy active nests and eggs, kill individual birds, and modify habitat used by migratory birds for breeding, feeding, and sheltering. Adult birds capable of flight would be expected to avoid most Covered Activities. However, some adult birds could collide with transmission lines and may be vulnerable to electrocution. Therefore, impacts to migratory bird individuals or nests would be minor to moderate and be both short- and long-term in nature.

4.8.1.3 STATE-LISTED SPECIES

Potential habitat removal and disturbance specific to state-listed species are summarized in Table 14. Impacts associated with general wildlife would also apply to these species. Impacts for any one species would not exceed total incidental take associated with surface terrestrial Covered Species, e.g., 21,247.5 acres. In many cases, species impacts would be significantly lower, as impacts would only occur on lands where Covered Species and state-listed species distribution overlap.

Under the Proposed Federal Action, CPS Energy would provide minimization and Applicant-proposed mitigation for incidental take of Covered Species through the potential creation, protection, or maintenance/improvement of suitable habitat. Potential impacts would also be minimized by the implementation of spill prevention and control methods, proper inspection and maintenance of equipment, reseeding, and proper runoff and erosion control measures. Therefore, although the intent of CPS Energy-proposed mitigation is to protect Covered Species, state-listed species with habitat protected by these conservation measures could also experience a benefit.

Table 14. Summary of State-Listed Species Impacts

Species	Potential Habitat Removal and Disturbance Impacts
Sheep frog (<i>Hypopachus variolosus</i>)	<ul style="list-style-type: none"> The sheep frog is active in underground burrows; as such, potential exists for the species to be injured or killed by surface and subsurface habitat disturbance (removal or alteration) associated with take. CPS Energy would typically conduct activities outside of the breeding season for the Covered Species. Therefore, it can be expected that such activities would primarily be performed during the fall and winter when the species, if present, may be less active. As such, the anticipated potential for species mortality is extremely low. Some surface habitat disturbance (removal or alteration) associated with take could also maintain open habitat for foraging and basking. These actions could have localized, beneficial impacts on habitat availability but could also increase the potential for harm or mortality from equipment and/or vehicle collisions. However, sheep frogs are expected to be rare in the Plan Area. As such, the anticipated potential for species mortality or harm due to aboveground collisions is extremely low.
Texas horned lizards (<i>Phrynosoma cornutum</i>)	<ul style="list-style-type: none"> Texas horned lizards are found in open areas with sparse plant cover (TPWD 2021b), including areas dominated by native non-sod-forming grass species. Vegetation clearing associated with Covered Activities could create new habitat for the species through conversion of forest or woodland to grassland or shrub habitat.

Species	Potential Habitat Removal and Disturbance Impacts
	<ul style="list-style-type: none"> Repeated vehicle/equipment travel and other O&M activities along the ROW easement could also maintain open habitat for foraging and basking. These actions could have localized, beneficial impacts on habitat availability but could also increase the potential for harm or mortality from being crushed by equipment during hibernation, and/or vehicle collisions when they are active. However, Texas horned lizards are expected to be rare in the Plan Area (TPWD reports that the species is mostly gone from the eastern side of Texas). Additionally, CPS Energy would typically conduct activities outside of the breeding season for the Covered Species during times when reptiles are hibernating or are active for only limited parts of each day. As such, the anticipated potential for species mortality or harm due to aboveground collisions is extremely low.
Texas Scarlet Snake (<i>Cemophora coccinea lineri</i>)	<ul style="list-style-type: none"> Take associated with Covered Activities could reduce habitat quality and availability for the species, although post-construction revegetation could re-establish some suitable habitat over the long term. The Texas scarlet snake is a nocturnal burrowing snake; as such, it is unlikely for this species to be injured or killed by vehicle or equipment movement, although potential exists for the species to be injured or killed by underground construction activities.
Texas tortoise (<i>Gopherus berlandieri</i>)	<ul style="list-style-type: none"> Take associated with Covered Activities could reduce habitat quality and availability for the species, although post-construction revegetation could re-establish some suitable habitat over the long term. The Texas tortoise is slow moving and resides in underground burrows. For this reason, potential exists for Texas tortoises to be injured or killed by vehicle traffic or during construction if any members of the species take shelter in an area being cleared or excavated. Potential also exists for a Texas tortoise to fall into a trench and not be able to climb out (e.g., if trenches are left open during breaks in construction). Because this species is expected to be rare in the Plan Area due to severe population decline (TPWD 2017b), the potential for this type of physical harm is extremely low.

4.8.2 Alternative B – No Action Alternative

Alternative B would result in the same types of wildlife habitat removal and disturbance. Therefore, impacts to wildlife habitat would be similar to those described for Alternative A: minor and short- to long-term. However, the Applicant would not implement a Conservation Program involving coordinated mitigation across the Plan Area. Under this alternative, CPS Energy would be expected to implement the same types of minimization measures, but the mitigation measures would be commensurate with project-specific impacts as determined through an individual ITP or section 7 consultation. Because any mitigation would be at a project-specific scale (versus the programmatic ITP), this EA anticipates that wildlife species would experience a reduced benefit, as compared to the Proposed Action.

4.8.3 Cumulative Impacts

Past and present actions in the Plan Area, such as urban development and agricultural activities, have contributed to wildlife habitat removal and disturbance as well as potential for injury, mortality, habitat fragmentation, avoidance, and displacement of general wildlife species. Future land development associated with population growth in the proposed Plan Area, as well as other activities such as energy, water, and infrastructure development (Appendix B), could further eliminate or replace existing wildlife habitat with impervious cover or nonnative vegetation. Likewise, some individuals could be harmed or killed due to collision with vehicles or aboveground infrastructure associated with future actions, while other species may benefit from creation of new habitat.

Incidental take associated with Covered Activities would add to these impacts through an estimated 21,247.5 acres of terrestrial surface habitat removal and disturbance over the 30-year period.

Implementation of the minimization and mitigation measures described for the Proposed HCP (Alternative A) would reduce CPS Energy's contribution to effects to wildlife species and habitat effects by ensuring that potential habitat loss over the next 30 years would be minimized and mitigated to the maximum extent practicable. Furthermore, the minimization and Applicant proposed mitigation provided under the HCP would result in potential for management of existing conservation lands and protection of

larger, contiguous tracts of land with greater conservation value than would be achieved if similar acreage were protected on a project-by-project basis. Therefore, impacts to wildlife species and habitat would be long-term, but minor.

4.9 Socioeconomics and Environmental Justice

4.9.1 Alternative A – Proposed Action

Under the Proposed Federal Action, CPS Energy would receive an ITP and implement their HCP over a 30-year period. Although not all CPS Energy activities would be enrolled in the HCP, infrastructure development associated with Covered Activities could potentially contribute to the overall Plan Area economy by generating short-term employment, income, or spending during construction. However, no specific projects have been identified at this time that would permit quantification of economic impact. CPS Energy activities enrolled in the HCP would provide negligible, long-term socioeconomic benefits to the Plan Area based on the continued provision of an adequate and reliable level of power. Economic growth and development rely heavily on adequate public utilities. Without this basic infrastructure, a community's potential for economic growth would be constrained. CPS Energy activities are not anticipated to significantly influence land use patterns but rather coincide or occur as a result of changing land use and developments and increases in populations. Ongoing provision of utility service would not be expected to result in induced growth in most cases; population growth induces expansion and the need for more reliable electric services (ERCOT 2010).

Depending on the location of Covered Activities, impacts to minority or low-income populations are possible. Precise identification and discussion regarding the nature, magnitude, or location of what impacts, how much, and where those impacts would occur is not possible due to the programmatic nature of the HCP. However, CPS Energy anticipates that 43 percent and 49 percent of the Covered Activities would occur, respectively, in the northern and southern portions of the Plan Area (see Table 14 and Figure 9 of the CPS Energy HCP). The remaining 8 percent is anticipated to occur in the urban core and the north-central portions of the Plan Area. The northern portion of the Plan Area generally comprises minority population percentages below 40 percent and populations where less than 10 percent are below poverty (EPA 2020). Whereas the southern portion of the Plan Area generally comprises minority population percentages between 40 percent and 71 percent and populations where 10–25 percent are below the poverty level (EPA 2020).

Since the state average for the percentage of minority residents that make up the total population is 57 percent, and 36 percent for low-income residents, no disproportionate impacts to low-income residents are anticipated. However, Covered Activities that occur in the southern portion of the Plan Area could affect a meaningfully greater population of minority residents. Potential construction-related impacts (e.g., traffic, noise, emissions) would be temporary, and cease when construction is complete. Additionally, for actions subject to authorization by the PUC, the PUC would require an analysis and consideration of potential impacts to community values (including habitable structures) and environmental integrity as part of the siting process.

Long term, the implementation of mitigation associated with the Proposed Action could potentially benefit environmental justice communities if land preservation is implemented. Studies have suggested that the conservation of open space could have the effect of increasing property values of the surrounding land (McConnell and Walls 2005). However, these benefits are uncertain, as they depend on the size, location, and shape of the preserved lands (Jiang and Swallow 2007). Additionally, mitigation may occur through a variety of options yet to be chosen.

4.9.2 Alternative B – No Action

Under the No Action Alternative (Alternative B), the Applicant would implement the Covered Activities described under the Proposed Alternative (Alternative A). Therefore, the socioeconomic impacts described above among minority or low-income populations in the Plan Area are anticipated to be similar with regarding to implementation of the Covered Activities: temporary, adverse, and short-term to long-term beneficial. The extent and distribution of conserved open spaces resulting from the Applicant's mitigation under this alternative are anticipated to differ relative to the Proposed Alternative due difference in determination of mitigation from programmatic ITP versus individual ITPs or section 7 consultations. However, the extent and locations conserving open spaces have not been determined and thus it is not possible to determine the magnitude or disproportionality of socioeconomic benefits or detriments among minority and low-income populations across the Plan Area.

4.9.3 Cumulative Impacts

Past and future development and urbanization in the Plan Area, as indicated by previous and projected population increases, are anticipated to occur irrespective of the authorization of incidental take of Covered Species or the implementation of the HCP. Therefore, implementation of the proposed HCP and ITP would not measurably impact employment, income, and tax base when considered in conjunction with other reasonably foreseeable projects. However, implementation of the Proposed HCP (Alternative A) would reduce CPS Energy's risk of Act violation and help reduce costs or time delays associated with the need for additional permits. This regulatory assurance would improve CPS Energy's ability to provide efficient, safe, cost-effective, and reliable services to its customers in a rapidly growing region, thereby promoting opportunities for economic growth and providing a benefit over the No Action Alternative.

4.10 Vegetation

4.10.1 Alternative A – Proposed Action

Over a 30-year period, this EA estimates that up to 139,948.8 acres of surface disturbance (see Table 1) could occur in the Plan Area due to grading, excavation, or other Covered Activities. These actions could result in vegetation removal, disturbance, or conversion to other vegetation types, although most of this disturbance would not occur from CPS Energy activities enrolled in the HCP. Up to 21,247.5 acres of take are estimated to occur aboveground under the Proposed Action.

Construction of permanent structures, e.g., access roads or facilities, would result in long-term vegetation removal for the duration of the structure's lifespan. However, these actions only represent 2 percent (3,157 acres) of total estimated surface disturbance for all CPS Energy activities, of which only a portion would be enrolled in the HCP. Up to 20,320.7 acres of take associated with GCWA habitat removal or disturbance (consisting of relatively mature and closed-canopy, juniper-oak woodlands) could fragment or convert woodlands to more open vegetation types. If this take occurs in linear ROWs, tree or large shrub removal would be long-term in order to comply with the National Electrical Safety Code. Once construction is completed, herbaceous species would be allowed to recolonize within these ROWs, but trees would not be permitted to grow within ROWs for the duration of most linear projects' lifespans. CPS Energy would restore disturbed areas; replacing topsoil and seeding with native plants immediately following construction to reduce potential erosion impacts, promote revegetation, and facilitate natural succession to promote recovery from project disturbances. CPS Energy would also comply with Tree Protection Plans required by the City of San Antonio for preservation or mitigation of significant or heritage trees.

Potential take associated with O&M activities would be predominately limited to vegetation trimming, pruning, and mowing within previously disturbed areas. These actions would typically limit reestablishment of woody species and preserve existing herbaceous vegetation communities within

existing ROWs. Therefore, O&M activities would maintain vegetation community composition, abundance, or diversity within the Plan Area.

Additionally, Covered Activities associated with take could introduce fugitive dust, thereby temporarily reducing primary production. However, CPS Energy's Conservation Program erosion and sediment control measures, as well as adherence to rules and regulations of the Edwards Aquifer Protection Program (TCEQ 2020), would minimize impacts to adjacent or offsite plant communities arising from sedimentation, soil erosion or accidental contamination from pollutants. There is potential for spread and introduction of invasive or exotic plant species through equipment and human activity. However, these impacts would be minimized where CPS Energy's restoration efforts of disturbed areas involve revegetation with native species. Where Covered Activities require trimming or pruning oak trees, the exposed bark may increase the susceptibility of these and neighboring oak trees to a fungal infection called oak wilt (Austintexas.gov 2016). However, CPS Energy's Conservation Program includes implementation of the TFS oak wilt prevent measures, or a professional arborist's guidelines for the prevention of oak wilt (TFS 2015) to help minimize impacts to oaks in the Plan Area. Vegetation communities are also anticipated to benefit from mitigation for take of Covered Species. Based on the above findings, impacts to vegetation would be minor and short- to long-term.

4.10.2 Alternative B – No Action Alternative

Alternative B would result in the same types of vegetation habitat removal and disturbance. Therefore, impacts to vegetation would be similar to those described for Alternative A: minor and short- to long-term. Under this alternative, CPS Energy would implement the same types of minimization measures, but the mitigation measures would be commensurate with project-specific impacts as determined through an individual ITP or section 7 consultation. Because any mitigation would be at a smaller, project-specific scale (versus the programmatic ITP), this EA anticipates that vegetation would experience a reduced benefit, as compared to the Proposed Action.

4.10.3 Cumulative Impacts

Past and present actions have contributed incrementally to changes in vegetation communities in the Plan Area due to a variety of factors, such as population growth and urban/suburban/extra-urban development, energy development, agricultural operations, water development, and infrastructure growth (Appendix B). Reasonably foreseeable future actions include future development and urbanization. Impacts from these actions include modification, conversion, removal, or fragmentation of vegetation communities.

When considering the Proposed Federal Action (Alternative A) in aggregate with the past, present, and reasonably foreseeable future actions, Alternative A would cumulatively contribute to the reasonably foreseeable trend of reduction and fragmentation of native vegetation communities. However, the contribution of the Proposed Federal Action (Alternative A) to the cumulative impacts could be reduced relative to the No Action Alternative (Alternative B) due to implementation of the Conservation Program across the Plan Area, as described in the HCP (Section 2.1.5).

CHAPTER 5. AGENCY CONSULTATION AND LIST OF PREPARERS

5.1 Agency Consultation

Agencies consulted during the preparation of this EA were as follows:

- Texas Parks and Wildlife Department
- U.S. Fish and Wildlife Service

5.2 List of Preparers

Table 15 provides a list of Service and consultant staff involved in the preparation of this EA.

Table 15. List of Preparers

Agency or Entity	Name	Role
U.S. Fish and Wildlife Service (Service), Austin Ecological Services Field Office	Christina Williams	Service Biologist
Service, Austin Ecological Services Field Office	Tanya Sommer	Supervisory Service Biologist
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APPENDIX A
ALTERNATIVES CONSIDERED BUT DISMISSED FROM ANALYSIS

Table A-1. Alternatives Considered but Dismissed from Analysis

Alternative	Rationale
Exclusive Participation in the Southern Edwards Plateau HCP	<p>The Service considered exclusive participation in the SEP-HCP as an alternative to preparing a separate HCP. However, the SEP-HCP does not fully address CPS Energy's need for incidental take authorization for the following reasons:</p> <ol style="list-style-type: none"> 1. The SEP-HCP does not address the full set of species for which CPS Energy desires take authorization (specifically, <i>Cicurina baronia</i> or <i>Texella cokendolpheri</i>). 2. The SEP-HCP enrollment area is limited to the City of San Antonio ETJ and Bexar County. CPS Energy would not be able to participate in the SEP-HCP for any impacts that occur to GCWA habitat in Bandera, Comal, Kendall, Kerr, or Medina Counties. 3. The SEP-HCP is primarily intended to address land development activities with effects on the Covered Species that are very different than those anticipated from CPS Energy's linear activities. 4. The SEP-HCP includes strict measures for listed karst invertebrates that would unnecessarily limit CPS Energy's activities and operations within Critical Habitat and within 750 feet of occupied karst features. Any activities for which CPS Energy desired to seek incidental take coverage within designated Critical Habitat would require a separate consultation (either through section 7 or section 10) with the Service and would not be eligible for participation in the SEP-HCP. Therefore, work on existing and future infrastructure would require impact avoidance or a potentially lengthy consultation process with the Service for activities within portions of San Antonio including Alamo Heights, Monte Vista, along Bulverde Road, residential neighborhoods in the Stone Oak/Sonterra area, and along Loop 1604 near Military Drive. <p>For these reasons, the Service has determined that exclusive enrollment in the SEP-HCP does not represent a viable alternative for consideration in this EA.</p>
No Take Alternative	<p>Under the No Take Alternative, CPS Energy either would perform activities in a manner that would not result in a regulatory taking of any federally listed species or, where take of listed species was reasonably certain to occur, would comply with the ESA by seeking an ITP or, where there is a federal nexus, undergoing consultation pursuant to Act section 7. It is likely that some activities required to fulfill Applicant's obligation to provide utility services could not be performed without the potential for take of one or more listed species to occur. In those cases, if CPS Energy sought an individual take authorization from Service, CPS Energy's obligation to provide utility services could be significantly delayed. This could result in an overall decrease in quality of utility service and increase in cost associated with service provided by CPS Energy within the Plan Area.</p> <p>Because it is mandatory for CPS Energy to provide service to all current and future users in its Service Area and because this cannot be accomplished without risk of take, the no-take scenario is not consistent with CPS Energy's mission to provide reliable, cost-effective electricity to its users and does not present a viable alternative for consideration in this EA. Further, this alternative does not satisfy the Service's purpose and need for the Proposed Federal Action to issue an ITP when the criteria in section 10(a)(2)(B) are satisfied by CPS Energy (see Section 1.3 of EA) or support Service obligations to achieve long-term species and ecosystem conservation objectives at ecologically appropriate scales (Service and NMFS 2016).</p>
Reduced Permit Duration	<p>The Service considered reducing the ITP duration from 30 to 15 years, to result in lower take authorization. However, under this scenario, Applicant actions with the potential for take of one or more listed species that occur beyond the 15-year permit term would necessitate additional ITP applications. This alternative would be burdensome to both CPS Energy and the Service due to time and effort spent in obtaining/issuing these additional permits. Any delays in construction of projects resulting from additional permitting needs could jeopardize CPS Energy's ability to provide efficient, safe, and reliable services to its customers, resulting in additional costs to consumers. Further, this alternative does not satisfy the Service's purpose and need for the Proposed Federal Action to issue an ITP when the criteria in section 10(a)(2)(B) are satisfied by CPS Energy (see Section 1.3 of EA) or support Service obligations to achieve long-term species and ecosystem conservation objectives at ecologically appropriate scales (Service and NMFS 2016). For these reasons, the Service has determined that a reduced permit duration does not represent a viable alternative for consideration in this EA.</p>
Fewer CPS Energy Activities	<p>Under this alternative, CPS Energy would restrict the types of CPS Energy activities that could be addressed under the HCP, as compared to the Proposed Action. As noted in Section 2.4.2, however, it is mandatory for CPS Energy to provide service to all current and future users in its Service. This entails actions that span all CPS Energy activities—from construction to O&M and emergency repair. Not all excluded actions could be accomplished without risk of take; therefore, excluding certain activities would likely result in the need for additional permits. Any delays in construction of projects resulting from additional permitting needs could jeopardize CPS Energy's ability to provide efficient, safe, and reliable services to its customers, resulting in additional costs to consumers. Further, this alternative does not satisfy the Service's purpose and need for the Proposed Federal Action to issue an ITP when the criteria in section 10(a)(2)(B) are satisfied by CPS Energy (see Section 1.3 of EA) or support Service obligations to achieve long-term species and ecosystem conservation objectives at ecologically appropriate scales (Service and NMFS 2016). For these reasons, the Service has determined that fewer CPS Energy activities is not a viable alternative for consideration in this EA.</p>

Alternative	Rationale
Higher Mitigation Ratios	The Service considered development of an alternative providing mitigation above and beyond the Proposed Action. This alternative would meet the project purpose and need, but the Service Habitat Conservation Planning Handbook (Service and NMFS 2016) states that mitigation should be commensurate with the impacts of the taking. CPS Energy has committed to minimizing potential takings of Covered Species through its HCP. CPS Energy would also fully offset the impacts of its requested taking by providing mitigation that permanently protects Covered Species habitat as to offset potential impacts associated with the Covered Activities. Therefore, additional mitigation is neither warranted nor practicable, and this alternative is not recommended for further analysis.
Reduced Development	Under this alternative, CPS Energy would reduce the extent of proposed construction, O&M, and emergency repair activities forecasted over the 30-year ITP, resulting in fewer acres of disturbance within existing or future ROWs. However, development estimates regarding the miles of new, upgraded, or maintained/repaired electrical and natural gas lines required, as well as customer engineering needs, are based on CPS Energy's long-term plans and represent best available data regarding current and future development needs (CPS Energy 2013). Therefore, a reduced-development alternative would likely exclude needed projects that could subsequently require separate permitting before they could be implemented. As noted above, obtaining these additional permits would be inefficient, burdensome, and costly. Further, this alternative does not satisfy the Service's purpose and need for the Proposed Federal Action to issue an ITP when the criteria in section 10(a)(2)(B) are satisfied by CPS Energy (see Section 1.3 of EA) or support Service obligations to achieve long-term species and ecosystem conservation objectives at ecologically appropriate scales (Service and NMFS 2016). For these reasons, the Service has determined that reduced development does not represent a viable alternative for consideration in this EA.
Additional Minimization Measures	The Service considered whether it was feasible to expand the list of measures that CPS Energy would implement to minimize impacts to Covered Species. However, upon review of the minimization measures provided in the HCP, no additional measures were identified. Further, CPS Energy completes a formal routing and siting process for individual transmission line and substation projects that requires project designers to evaluate opportunities to avoid or minimize impacts through siting, such as using existing previously disturbed areas, property boundary lines, and previously cleared areas to the extent practicable. Therefore, this alternative was not carried forward for analysis.

APPENDIX B
LIST OF REASONABLY FORESEEABLE PROJECTS

Table B-1. List of Reasonably Foreseeable Actions in the Plan Area

Project/Plan Name/Data Source	Project Counties	Brief Description
Agricultural		
Texas Department of Agriculture Strategic Plan (2014–2019)	Statewide	Establishes goals, objectives, and performance measures to generate marketing opportunities for Texas agriculture and increase funding/assistance to rural communities and businesses.
Conservation		
Comal County Habitat Conservation Plan	Comal	Provides authorization of take for the GCWA and black-capped vireo for projects enrolled in the HCP.
Infrastructure		
Comal County 2022 Facilities Plan	Comal	The objective of the Comal County 2022 Facilities Plan is to expand and remodel existing facilities and/or construct new facilities to address immediate and future space use needs. This is a 5-year plan that will be revised and re-adopted as needed.
Land Use/Economic Development		
City of Pleasanton 2025 Master Plan	Atascosa	Anticipates economic development and expansion in response to the Eagle Ford shale development, resulting in development along SH 97 Corridor to I-37/SH 97, downtown, and near the airport/medical center.
City of Lytle 2025 Comprehensive Plan	Atascosa	Promotes future road development, infrastructure, housing, and recreation opportunities, particularly along I-35, Texas 132, and FM 2790. Anticipates growth within city limits and ETJ.
City of Bandera DRAFT 2014 Comprehensive Land Use Plan	Bandera	Promotes future road development, annexation, infrastructure, housing, and recreation opportunities in Bandera.
SA Tomorrow Comprehensive Plan	Bexar	Provides policy guidance for future growth, development, land use, infrastructure, and services in San Antonio. Identifies needed transit improvements and corridors, urban centers for high-intensity growth, and regional centers for mixed use growth.
City Comprehensive Plan	Live Oak	Promotes continued residential land uses, as well as recreation, and commercial development; the latter along major city roadways.
Oil & Gas		
The Texas Railroad Commission Public GIS Viewer	Atascosa	3,146 active oil and gas wells in Atascosa County. An additional 2,133 wells are listed as abandoned/plugged.
	Bandera	Three active oil and gas wells in Bandera County. An additional 2,133 wells are listed as abandoned/plugged.
	Bee	Three active oil and gas wells in Bee County. An additional 2,133 wells are listed as abandoned/plugged.
	Gonzales	1,596 active oil and gas wells in Gonzales County. An additional 863 wells are listed as abandoned/plugged.
	Guadalupe	1,275 active oil and gas wells in Guadalupe County. An additional 1,985 wells are listed as abandoned/plugged.
	Jackson	1,653 active oil and gas wells in Jackson County. An additional 2,593 wells are listed as abandoned/plugged.
	Karnes	3,288 active oil and gas wells in Karnes County. An additional 624 wells are listed as abandoned/plugged.
	Lavaca	1,157 active oil and gas wells in Lavaca County. An additional 1,258 wells are listed as abandoned/plugged.
	Live Oak	1,929 active oil and gas wells in Live Oak County. An additional 1,424 wells are listed as abandoned/plugged.
	Medina	2,078 active oil and gas wells in Medina County. An additional 1162 wells are listed as abandoned/plugged.
	Victoria	1,622 active oil and gas wells in Victoria County. An additional 2,730 wells are listed as abandoned/plugged.
	Wharton	1,661 active oil and gas wells in Wharton County. An additional 3,173 wells are listed as abandoned/plugged.
	Wilson	1,182 active oil and gas wells in Wilson County. An additional 1,025 wells are listed as abandoned/plugged.
Pipelines		
Various	Atascosa	Eleven in-service natural gas transmission pipelines and 165 crude transmission pipelines are located throughout Atascosa, Bandera, and Bee Counties.
Various	Bandera	
Various	Bee	
Roads & Transportation		

Project/Plan Name/Data Source	Project Counties	Brief Description
Texas Department of Transportation (TxDOT)	Atascosa	There are 27 TxDOT projects scheduled for construction with accepted contractor bid, 18 projects with plans being finalized before being made public for bid, and two projects still in the development phase for Atascosa County. The purpose of the projects across all counties include traffic signal installation/repair, roadway resurfacing, repair, or widening and replacement of bridges.
	Bandera	There are 10 TxDOT projects scheduled for construction with accepted contractor bid, eight projects with plans being finalized before being made public for bid, and two projects still in the development phase for Bandera County.
	Bee	There are 14 TxDOT projects scheduled for construction with accepted contractor bid, eight projects with plans being finalized before being made public for bid, and two projects still in the development phase for Bee County. One TxDOT project is in the long-term planning phase. It is a feasibility study for an approximately 8-mile-long section of US 59.
	Bexar	There are 81 TxDOT projects scheduled for construction with accepted contractor bid, 136 projects with plans being finalized before being made public for bid, and 52 projects still in the development phase for Bexar County. Twelve TxDOT projects are in the long-term planning phase. These projects are feasibility studies for multiple roadway extension and widening projects and a bike lane addition project.
	Blanco	There are seven TxDOT projects scheduled for construction with accepted contractor bid, 11 projects with plans being finalized before being made public for bid, and two projects still in the development phase for Blanco County.
	Comal	There are 25 TxDOT projects scheduled for construction with accepted contractor bid, 31 projects with plans being finalized before being made public for bid, and eight projects still in the development phase for Comal County.
	DeWitt	There are 27 TxDOT projects scheduled for construction with accepted contractor bid, 15 projects with plans being finalized before being made public for bid, and four projects still in the development phase for DeWitt County.
	Frio	There are five TxDOT projects scheduled for construction with accepted contractor bid, seven projects with plans being finalized before being made public for bid, and three projects still in the development phase for Frio County.
	Gonzales	There are 21 TxDOT projects scheduled for construction with accepted contractor bid, 24 projects with plans being finalized before being made public for bid, and 13 projects still in the development phase for Gonzales County.
	Guadalupe	There are 15 TxDOT projects scheduled for construction with accepted contractor bid, 21 projects with plans being finalized before being made public for bid, and nine projects still in the development phase for Guadalupe County.
	Jackson	There are 12 TxDOT projects scheduled for construction with accepted contractor bid, 20 projects with plans being finalized before being made public for bid, and four projects still in the development phase for Jackson County.
	Karnes	There are 19 TxDOT projects scheduled for construction with accepted contractor bid, 17 projects with plans being finalized before being made public for bid, and two projects still in the development phase for Karnes County.
	Kendall	There are 10 TxDOT projects scheduled for construction with accepted contractor bid, 17 projects with plans being finalized before being made public for bid, and five projects still in the development phase for Kendall County. One TxDOT project is in the long-term planning phase. It is a feasibility study for construction of a new roadway, the Kendall Gateway.
	Kerr	There are 17 TxDOT projects scheduled for construction with accepted contractor bid, 18 projects with plans being finalized before being made public for bid, and two projects still in the development phase for Kerr County.
	Lavaca	There are 23 TxDOT projects scheduled for construction with accepted contractor bid, 20 projects with plans being finalized before being made public for bid, and seven projects still in the development phase for Lavaca County.
	Live Oak	There are 23 TxDOT projects scheduled for construction with accepted contractor bid, 15 projects with plans being finalized before being made public for bid, and four projects still in the development phase for Live Oak County.
	Medina	There are 14 TxDOT projects scheduled for construction with accepted contractor bid, 19 projects with plans being finalized before being made public for bid, and three projects still in the development phase for Medina County.
	Victoria	There are 23 TxDOT projects scheduled for construction with accepted contractor bid, 22 projects with plans being finalized before being made public for bid, and nine projects still in the development phase for Victoria County. One TxDOT project is in the long-term planning phase. It is a feasibility study for widening several roadway across the county.
	Wharton	There are 32 TxDOT projects scheduled for construction with accepted contractor bid, 26 projects with plans being finalized before being made public for bid, and 22 projects still in the development phase for Wharton County. One TxDOT project is in the long-term planning phase. It is a feasibility study for an approximately 8-mile-long section of US 59.

Project/Plan Name/Data Source	Project Counties	Brief Description
	Wilson	There are 20 TxDOT projects scheduled for construction with accepted contractor bid, 15 projects with plans being finalized before being made public for bid, and four projects still in the development phase for Wilson County.
Water Development		
2017 Texas State Water Plan	Atascosa	Projected water need increases from 2,020–2,070 is 585 acre-feet per year (af/y) predominately attributed to increases in municipal use leading to an overall water shortage of 247–1,063 af/y in Atascosa County over the 50-year timeframe. Five projects have been recommended to combat the water shortage: expanding existing aquifer production by drilling new wells and construction of multiple pipelines to deliver the additional water supply to surrounding counties.
	Bandera	Projected water need increases from 2,020–2,070 is 585 af/y predominately attributed to increases in municipal use leading to an overall water shortage of 132–645 af/y in Bandera County over the 50-year timeframe. Five projects have been recommended to combat the water shortage: expanding existing aquifer production by drilling new wells, installation of new pipelines and repair of existing lines to deliver additional water supply to surrounding counties, and developing rainwater harvesting systems.
	Bexar	Projected water need increases from 2,020–2,070 is 136,130 af/y predominately attributed to increases in municipal use over the 50-year timeframe. Fourteen projects have been recommended to combat the water shortage: expanding existing aquifer production by installation of new pipelines to deliver additional water supply to surrounding counties.
2016 Lavaca Regional Water Plan	Lavaca	Predicts that total water demands for Jackson, Lavaca, and Wharton Counties will decrease by 1,791 af/y from 2020 to 2070. Water shortages are likely to be associated with irrigation needs.

APPENDIX C
PUBLIC COMMENTS AND RESPONSES

Section	Comment	CPS Energy Response	Document Update
2.1.5.1	TPWD recommends CPS Energy periodically check for updates the Rare, Threatened, and Endangered Species of Texas (RTEST) by county online application.	CPS Energy agrees with the recommendation to periodically check for updates the Rare, Threatened, and Endangered Species of Texas (RTEST) by county online application.	Document update not necessary.
	If vegetation clearing must be scheduled to occur during the GCWA breeding season, TPWD recommends the vegetation impacted should be surveyed for active nests.	As outlined in the HCP, CPS Energy will engage with USFWS in advance of enrolling an activity related to vegetation clearing during the GCWA nesting season. The HCP includes a high level of mitigation for such activities, and this mitigation also benefits other bird species. CPS Energy will adhere to current applicable federal and state requirements on migratory bird/nest protection.	Document update not necessary.
	Recommend revising language from "...removal of woody vegetation from the area within 50 feet of the entrance or footprint (if known) of an Occupied Karst Feature ...would be minimized" to "...removal of woody vegetation from the area within 50 feet of the entrance or footprint (if known) of an Occupied Karst Feature...would be minimized."	CPS Energy agrees with the suggested language: "...removal of vegetation from the area within 50 feet of the entrance or footprint (if known) of an Occupied Karst Feature or Assumed Occupied Karst Feature would be minimized."	Updated text in EA Section 2.1.5.1, Karst Invertebrate Specific Measures.
3.5.3	Final EA should be revised to indicate the evaluation of species is in Appendix D of the HCP (not Appendix C).	Text in EA Section 3.5.3, State Listed Species, will be corrected to refer to Appendix D of the HCP.	Text in EA Section 3.5.3, State Listed Species, was corrected to refer to Appendix D of the HCP.
4.5.1	TPWD recommends avoiding new route placement in or near public recreation areas, in particular those owned by TPWD.	Through its internal routing and siting process and in compliance with Public Utility Commission of Texas requirements when applicable, CPS Energy considers a range of route alternatives, and evaluation of routes that avoid or minimize impacts to areas owned or managed by TPWD is an important part of this evaluation process. CPS Energy's evaluation considers impacts to parks and recreation, viewshed impacts, and other impacts.	Document update not necessary.
4.6.2.1	TPWD recommends	Suggested text to add to Table 13: An increase in tawny crazy ants	Text added to Table 13 in EA Section 4.6.2.1 and reference added to Chapter 6 – Literature Cited.

Section	Comment	CPS Energy Response	Document Update
	including tawny crazy ants in addition to red imported fire ants.	(<i>Nylanderia fulva</i>) associated with Covered Activities has the potential to impact Covered Karst Invertebrates, including by predation or increased resource competition (LeBrun 2017).	LeBrun, E. 2017. Mitigating impacts of tawny crazy ant populations on endangered karst invertebrates: quantifying harm and designing environmentally safe control methods.
4.7.1	Clearing of woodland may provide minor benefits to Tobusch fishhook cactus – TPWD recommends further clarification and scientific references for this rationale.	Suggested text revision: Since the cactus typically occurs within grassy or rocky openings in woodland (TPWD 2021), Covered Activities that clear woodland or forest could provide minor benefits for the cactus by creating openings in formerly wooded areas.	Text revised in EA Section 4.7.1 and reference added to Chapter 6 – Literature Cited. TPWD. 2021a. Tobusch Fishhook Cactus. Available at https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/nongame/listed-species/plants/tobusch_fishhook_cactus.phtml?o=tobusch . Accessed May 2021.
4.8.1.1	Recommend limit vehicle speed within ROWs to 20 miles per hour.	In project contractor requirements, and staff environmental and safety training, CPS Energy will advise contractors and staff to not exceed 20 mph in ROWs/ easements.	Document update not necessary.
4.8.1.3	Conversion of forest or woodland to grassland or shrub habitats may provide minor benefits to Texas horned lizard – TPWD recommends further clarification and scientific references for this rationale.	Suggested text revision: Texas horned lizards are found in open areas with sparse plant cover (TPWD 2021), including areas dominated by native non-sod-forming grass species. Vegetation clearing associated with Covered Activities could create new habitat for the species through conversion of forest or woodland to grassland or shrub habitat.	Text revised in EA Section 4.8.1.3 and reference added to Chapter 6 – Literature Cited TPWD. 2021b. Texas Horned Lizard (<i>Phrynosoma cornutum</i>). Available at https://tpwd.texas.gov/huntwild/wild/species/thlizard/ . Accessed May 2021.
	If construction activities take place during cold weather, recommend that construction personnel stay observant of construction activities that may harm the Texas horned lizard.	In project contractor requirements, and staff environmental training, CPS Energy will inform contractors and staff of potential for state-protected species to occur in project areas, and that to be aware of construction activities that may harm the Texas horned lizard and other wildlife species.	Document update not necessary.
	TPWD recommends that CPS Energy commit to incorporating pollinator conservation and management into the revegetation and maintenance plans for all Covered Activities.	CPS Energy standard practice is to revegetate with native grass and forb species. To the extent allowed by the applicable easement agreements, CPS Energy will include additional pollinator-friendly species in seed mixes and pollinator conservation in maintenance considerations. In areas maintained by CPS Energy, mowing will be limited during the GCWA breeding season.	Document update not necessary.