1. INTRODUCTION AND BACKGROUND

1.1 OVERVIEW/BACKGROUND

Southwest Florida encompasses a variety of urban, agricultural, and natural landscapes that support, among other things, residential, commercial, and public activities, food production, recreation, natural ecosystem functions, and wildlife. Collier County, located west of the Everglades and south of the Caloosahatchee River (Figure 1-1), has experienced rapid human population growth over the past several decades, while simultaneously witnessing the dedication of vast expanses of natural areas to conservation as State and Federal lands. Over two-thirds of Collier County's land area is currently in conservation status, with over 877,000 of the county's 1,300,000 acres protected (FNAI 2014a).

The Federal preserves within Collier County include the Big Cypress National Preserve (BCNP), the Florida Panther National Wildlife Refuge (FPNWR), the Ten Thousand Islands National Wildlife Refuge (TTINWR), and the western coastal portions of Everglades National Park (ENP). State conservation lands within the County include the Fakahatchee Strand State Preserve (FSSP), the Picayune Strand State Forest (PSSF), the Okaloacoochee Slough State Forest (OSSF), and extensive portions of the Corkscrew Regional Ecosystem Watershed (CREW). In addition, the National Audubon Society maintains approximately 13,000 acres of conservation lands in Collier County, comprised of the Corkscrew Swamp Sanctuary and nearby lands.

These Federal and State preserves were generally established to protect vast tracts of Southwest Florida's diverse natural ecosystems, which harbor a wide variety of plants and wildlife, including many species listed as endangered or threatened under the Endangered Species Act, 16 U.S.C. §§ 1531 *et seq*. (ESA or Act), protected by the State of Florida, or both. Among these listed species, the Florida panther (*Puma concolor coryi*) represents a major "focal species," meaning that conservation activities directed toward conserving the panther also promote multiple aspects of regional biodiversity conservation (Lambeck 1997; Noss 2007). The public conservation lands within Collier County protect many species that have limited localized distributions, home ranges, and/or dispersal distances (e.g., red-cockaded woodpeckers; rare orchids; Big Cypress fox squirrels), but the Florida panther utilizes habitats and establishes home ranges on a landscape scale that extends well beyond the boundaries of the existing public conservation lands.

The role of private lands for sustaining the Florida panther has been addressed repeatedly in the scientific literature for over 25 years (e.g., Belden et al. 1988; Maehr 1990; Logan et al. 1993; Main et al. 1999; Beier 2009). Beier et al. (2003; 142) stated "it is certainly true that private lands are essential to security of this population, and that conserving these lands *will require active support* from water management districts, Seminoles, and private landowners." (italics added.) The most recent panther annual monitoring report (FWC 2016, p. 15) stated that "[c]onserving panther habitat on private lands is essential for advancing panther recovery throughout its range." Scientific literature on the panther contains numerous discussions related to the development and implementation of private-landowner incentives for preserving and maintaining panther habitat as a valuable tool that is needed to complement public land acquisition and management (Logan et al. 1993; Evans 1994; Maehr 1997;

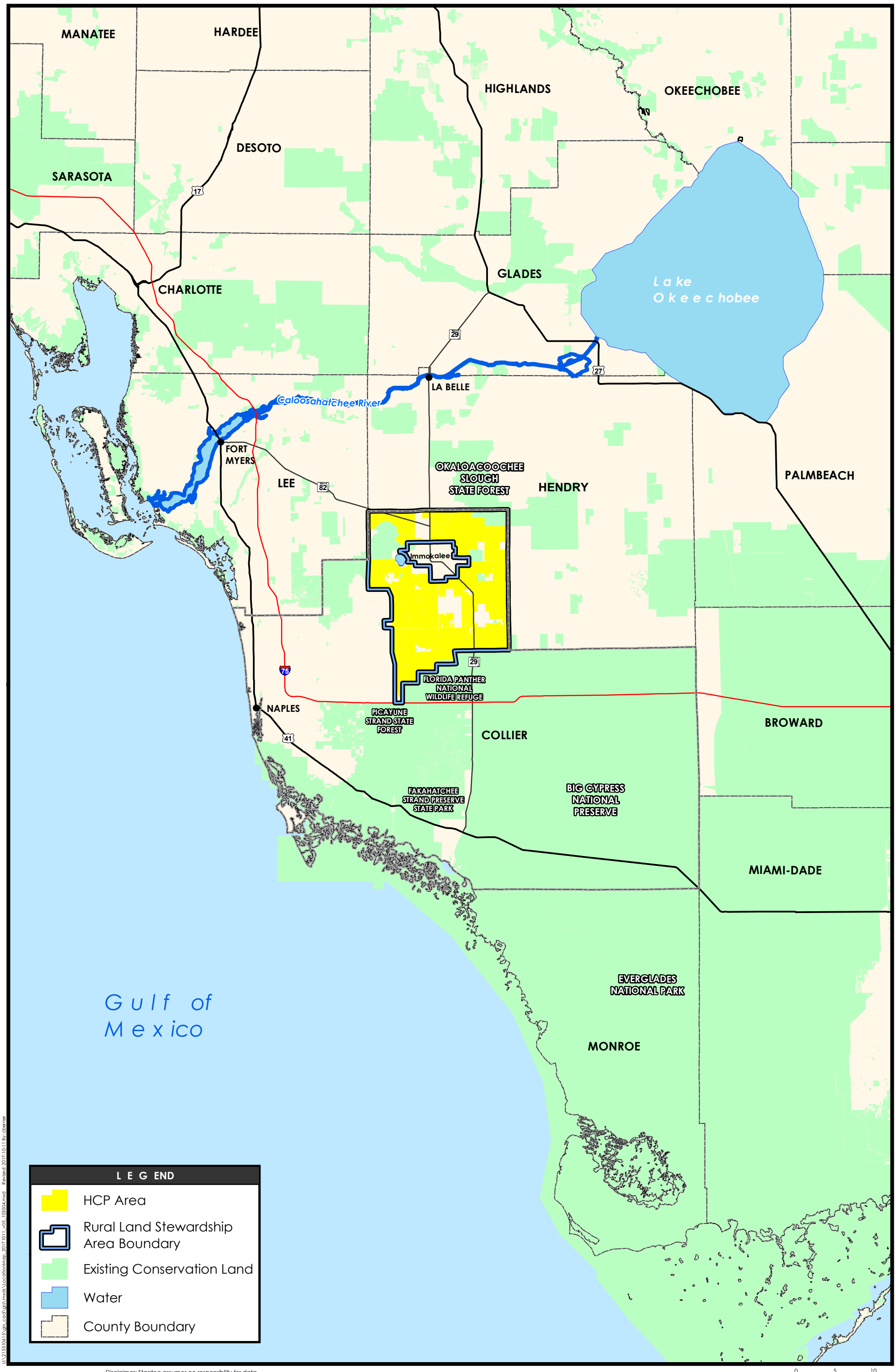

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FIGURE 1-1

Eastern Collier MSHCP Location Map

November 2017

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Kreye and Pienaar 2015). However, to date, the types of incentives offered to private landowners, and the conservation funding available to State and Federal agencies to consistently engage private landowners, have been limited and largely ineffective.

Since 1981, State and Federal wildlife biologists have captured over 243 Florida panthers in Southwest Florida, and fitted them with radiotelemetry collars and, more recently, geographic positioning system (GPS) collars (FWC 2016). The location data provided by these collared panthers have helped to define the "core population area" for the species (USFWS 2002a, Figure 37) and general patterns of habitat utilization throughout the panther's range (see Section 4, Florida Panther). While the majority of the core population area lands are currently protected within public conservation lands, including the BCNP, FPNWR, and FSSP, sizable portions of the core population area extend onto private lands in eastern Collier County and southern Hendry County that adjoin these public lands. The panther radiotelemetry and GPS data also reveal regular utilization of native habitats within two regional flowway systems in eastern Collier County (Okaloacoochee Slough and Camp Keais Strand), and sporadic utilization of extensive nearby agricultural areas.

Scientific literature on the Florida panther indicates that existing public conservation lands alone are insufficient for viable long-term conservation of the Florida panther's core population (USFWS 2002a; Kautz et al. 2006). There is broad-based agreement among Federal and State wildlife biologists, academic conservation researchers, a variety of non-governmental organizations (NGOs), and a group of rural property owners, that the engagement and active support of private landowners is essential to landscape-scale conservation efforts designed to address the panther's ecological needs.

Given the potential for privately-held native habitats within eastern Collier County to benefit the conservation of the Florida panther, a Habitat Conservation Plan (HCP) can provide a valuable mechanism for achieving permanent protection of the landscape-scale features that support panther ecology. The proposed HCP would also provide conservation benefits for other species that occur within the lands proposed to be covered by the HCP.

The U.S. Fish & Wildlife Service's (USFWS) "Habitat Conservation Planning and Incidental Take Permit Processing Handbook" (USFWS and NMFS 2016, hereinafter "HCP Handbook," at 1-2) speaks to the type of situation that exists in eastern Collier County, and advocates striking a balance between agriculture, economic development, and species conservation:

> Congress intended the HCP program to address listed and at-risk species in an ecosystem context, generate long-term commitments to conserve such species, and deliver regulatory assurances to project proponents. Congress also envisioned the HCP program as an opportunity to establish "creative partnerships" between the public and private sectors and State, municipal, and Federal agencies to conserve endangered and threatened species and their habitats (H.R. Rep. No. 97-835 (1982)). . .. Congress intended the HCP program to function not only to authorize incidental take, but also as a process to integrate non-Federal development and land-use activities with conservation goals, resolve conflicts between protection of listed species and economic activities on non-Federal lands, and create a climate of partnership and cooperation.

> In that spirit, the Services should encourage permit applicants and partners to use Congress' intent as the foundation for working together to develop an HCP. Collaboration, flexibility, ingenuity, innovation, and thoughtful planning are key to developing effective HCPs and resolving complex and controversial issues that may arise.

Indeed, the HCP Handbook notes that "[a]lthough some listed species are located on wildlife refuges, national parks, military bases, and other Federal lands, the majority of them are on non-federal lands[, and for that reason,] [t]he Services and other Federal agencies cannot recover those listed species alone." (HCP Handbook at 2-5.) The benefits of protecting private lands in eastern Collier County for the Florida panther are well documented (see Beier et al. 2003 for a literature review), and this HCP represents a viable means for achieving permanent protection of native panther habitats. Thus, the purpose of this HCP is to create a long-term balance among the complementary goals of environmental preservation, species protection, continued agricultural use of lands, and economic development. The Plan will achieve these goals through a combination of economic incentives and regulatory mechanisms, and will provide a balanced, sustainable future for the region. Because multiple species in eastern Collier County will be covered by this HCP, the plan is named the Eastern Collier Multiple Species Habitat Conservation Plan (ECMSHCP, or the Plan).

1.2 THE EASTERN COLLIER MULTIPLE SPECIES HABITAT CONSERVATION PLAN

This Plan provides a detailed, long-term, science-based methodology for the permanent protection of habitats for the endangered Florida panther and other species within the lands proposed to be covered by the HCP, referred to herein as the HCP Area (depicted in Figure 2-1, *infra*). The Plan is required to support the applications submitted by several Collier County landowners for Incidental Take Permits (ITPs) under Section 10(a)(1)(B) of the ESA. 16 U.S.C. § 1539(a)(1)(B).[1] The Plan provides a long-term (50-year) conservation and land-use planning framework for 151,779± acres[2] in Southwest Florida (Figure 1-1).

The eastern portions of Collier County comprise a variety of land uses, including, among other things, crop production, ranching, native vegetation communities, urban areas, and public lands (see Section 3, Environmental Setting). The ultimate planning goal for this region is to ensure a long-term compatible balance of conservation, continued agricultural land use, and economic development that contributes to the protection, survival, and recovery of the species covered by the Plan.

This Plan arose from a collaborative effort among property owners in eastern Collier County, NGOs, and Federal and State wildlife agencies, to address long-term planning issues related to the conservation of the Florida panther. As explained above, the landscape-scale mosaic of habitats that support the Florida panther also support many other federal and state-listed species, allowing for a multi-species approach

[1] Citations hereinafter are only to the Act.

[2] For the purpose of this Plan document, geographic information system (GIS) acreages are the best currently available estimates. Precise acreages will be determined during ITP processing.

for the Plan and ITPs. The Plan emphasizes the preservation of large expanses of native panther habitats, in a way that maintains landscape-scale habitat connectivity and facilitates panther utilization and movement.

The Plan covers eight federally-listed species: five avian species, one reptile species, and two mammal species. The Plan also covers three species – the gopher tortoise, eastern diamondback rattlesnake, and gopher frog – that are being considered for listing but are not currently federally-listed. The gopher tortoise is currently designated as candidate species for federal listing within its Florida range; the eastern diamondback rattlesnake and gopher frog are currently proposed for federal listing. The Plan also covers eight other non-federally-listed species that are currently listed as threatened by the State of Florida. All species to be covered by the Plan are included, along with their listing status, in Tables 1-1, 1-2, and 1-3, below (the Covered Species).

Table 1-1. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: federally-listed species.

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS[1]
BIRDS		
Florida scrub jay	*Aphelocoma coerulescens*	T
Northern crested caracara	*Caracara cheriway*	T
Wood stork	*Mycteria americana*	T
Red-cockaded woodpecker	*Picoides borealis*	E
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	E
REPTILES		
Eastern indigo snake	*Drymarchon corais couperi*	T
MAMMALS		
Florida bonneted bat	*Eumops floridanus*	E
Florida panther	*Puma concolor coryi*	E

[1] Federal status abbreviations (as of Aug. 2017): T -Threatened; E – Endangered

Table 1-2. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: candidate species and species under review for Federal listing.

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS[1]
REPTILES		
Gopher tortoise	*Gopherus polyphemus*	C
Eastern diamondback rattlesnake	*Crotalus adamanteus*	Under Review
Gopher frog	*Lithobates capito*	Under review

[1] Federal status abbreviations (as of Aug. 2017): C- Candidate species for federal listing; the gopher tortoise is also listed as Threatened by the State of Florida.

Table 1-3. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: species listed by the State of Florida.

COMMON NAME	SCIENTIFIC NAME	STATE STATUS[1]
BIRDS		
Burrowing owl	*Athene cunicularia*	T
Florida sandhill crane	*Antigone canadensis pratensis*	T
Little blue heron	*Egretta caerulea*	T
Roseate spoonbill	*Platalea ajaja*	T
Southeastern American kestrel	*Falco sparverius paulus*	T
Tricolored heron	*Egretta tricolor*	T
MAMMALS		
Big Cypress fox squirrel	*Sciurus niger avicennia*	T
Everglades mink	*Neovison vison evergladensis*	T

[1] State status abbreviations (as Aug. 2017): T –Threatened

The USFWS (2002) characterized the long-acknowledged role of private lands for Florida panther conservation as follows:

> Regional conservation planning also recognizes the importance of the ecological interactions among native ecosystems, agricultural areas, and developed lands and attempts to design conservation areas and strategies that maximize compatibility and effectively conserve natural resources including biodiversity and important ecosystem processes.
>
> A regional landscape strategy for the Florida panther in south Florida is dependent on two complementary aspects: science-based management of existing and potential future public lands consistent with panther conservation, and cooperation with private landowners that currently manage thousands of acres of panther habitat (Maehr 1990).

Ultimately, the Plan and ITPs allow participating property owners to plan and coordinate future permitted activities within defined areas in the HCP Area (the areas designated for Covered Activities, depicted on Figure 2-1, *infra*), enabling integrated and more effective conservation planning, avoiding piecemeal development scenarios, supporting effective long-term cumulative impact analyses, and simplifying future individual consultations between the USFWS and other Federal agencies. These goals are consistent with the longstanding consensus that private lands constitute a key component for successful Florida panther conservation, and that the active cooperation of private property owners is an essential component.

1.3 PERMIT APPLICANTS AND PERMIT DURATION

The ITP applicants are a group of landowners known as the Eastern Collier Property Owners (ECPO). Collectively, ECPO members own approximately 90 percent of the private land within eastern Collier County (see Section 1.7 and Figure 2-1), as well as other lands in South and Central Florida outside the eastern Collier County area. The ECPO applicants and eventual permit holders would be (in alphabetical order): Alico, Inc.; Barron Collier Investment, Ltd.; Collier Enterprises Management, Inc.; Consolidated Citrus Limited Partnership; English Brothers Partnership; Half Circle L Ranch, LLP; Heller Bros. Packing Corp.; John E. Price, Jr. Trust; Pacific Land, Ltd.; and Sunniland Family Limited Partnership.

The duration of the ITPs will be 50 years. This is the time period necessary to complete planned and/or foreseeable permitted activities within the portion of the HCP Area designated for Covered Activities, and to fully enact conservation provisions associated with the Plan elements and ITP conditions.

1.4 PERMIT BOUNDARY/HCP AREA

The HCP Area is located in the northeastern corner of Collier County, and surrounds the Town of Immokalee (Figure 1-1). The HCP Area is located within the boundaries of the RLSA (see Figure 2-1), and comprises approximately 151,779 acres of lands owned by the applicants, which do not include existing or future County and State roads within eastern Collier County. Over 20,000 acres of non-ECPO private property are located within the RLSA. Because the applicants do not own these lands, they are outside the HCP Area. These non-ECPO lands may later be voluntarily incorporated into the Plan through

Certificates of Inclusion, and are therefore depicted in Figure 2-1 as lands "Eligible for HCP Inclusion (Non-ECPO Lands)" (see Section 2.4). The major existing and traditional land uses and land cover within the HCP Area include agriculture, ranching, native vegetation communities, residential and commercial development, and earth mining.

As shown on Figure 1-1, the HCP Area borders the FPNWR and BCNP to the south, public conservation lands that support the core population area for the Florida panther. The HCP Area also borders the OSSF to the north and east, which is heavily utilized by panthers and serves as a landscape linkage in a panther dispersal corridor leading to the Caloosahatchee River and then northward into Central Florida. To the west are the privately owned 13,000-acre Audubon Corkscrew Swamp Sanctuary, which harbors the largest breeding colony of threatened wood storks in South Florida, and the publicly-owned CREW conservation lands. The HCP Area therefore occupies a strategic area that, if properly planned and managed, can function as an area of increased value to the Florida panther and other species, featuring important, landscape-scale habitat linkages ("critical linkages") in perpetuity (Oetting et al. 2014). The avoidance, minimization, mitigation, and management actions proposed in the Plan and specified in the ITPs would promote and maintain these linkages.

The approximately 151,779-acre HCP Area – all of which is owned by ECPO members – occupies approximately 90 percent of the private lands within eastern Collier County. As described in greater detail in Chapter 2, the Plan designates 50,175 acres of lands, primarily within previously-cleared agricultural areas, where up to 45,000 acres of Covered Activities may occur. The remaining approximately 107,000 acres, which include existing regional wildlife corridors that allow for wildlife movement among existing public conservation lands, will be permanently preserved under the Plan. Further enhancing the ratio of preserved areas to development, the 5,027-acre Town of Ave Maria will be included in the 45,000 acres where Covered Activities may occur, even though Federal permitting and Section 7 consultation has been completed for the Town of Ave Maria, reducing the maximum acreage of Covered Activities attributable to the ITPs to 39,973 acres. There are two parcels of land located within the RLSA (and the outer boundaries of the HCP Area) – the Hogan Island Quarry and the Immokalee Sand Mine – that are owned by ECPO members but are not included in the HCP Area or as Covered Activities because the Federal permitting process for each, including Section 7 consultations, is either already complete or is expected to be complete by the time the ITPs are issued (depicted in Figure 2-1 as "Prior Federal Permitting Initiated"). Nonetheless, these two parcels are accounted for in the overall configuration and planning for wildlife corridors and other ecologically beneficial features of the Plan.

1.5 SPECIES TO BE COVERED BY PERMIT

The federally-listed species to be covered under the ITPs are listed in Table 1-1. These species are included in the online USFWS database of federally-listed and candidate species for Collier County (Information for Planning and Consultation database at: https://ecos.fws.gov/ipac/location/index). A candidate species for federal listing in Florida, the gopher tortoise (*Gopherus polyphemus*), is also included in the Plan, along with two species that are proposed for federal listing, the eastern diamondback rattlesnake (*Crotalus adamanteus*) and the gopher frog (*Lithobates capito*) (Table 1-2).

Section 8.1.4 details the measures to be taken if, subsequent to issuance of the ITP, additional species become federally-listed within the HCP Area. Table 1-1 excludes those federally-listed species that occur exclusively in marine environments, coastal ecosystems (beaches, mangroves, nearshore environments), and other environments not present within the HCP Area. Only one plant species within Collier County is currently designated as a proposed species for listing – Florida prairie clover (*Dalea carthagenesis floridana*) – but the rocklands, costal uplands, and marl prairies that the plant inhabits are not found within the HCP Area. Therefore, no plant species are included in the Covered Species.

In addition to the federally-listed Covered Species, the Plan will cover eight species currently listed by the State of Florida as "Threatened" (Table 1-3), based on recent Biological Status Reviews performed by the Florida Fish and Wildlife Conservation Commission (FWC). All of the State-listed species in Table 1-3 will benefit directly from the Plan, because each of these species utilizes the same or similar habitat(s) as the federally-listed Covered Species. Given the large expanse of the areas designated under the Plan for Preservation/Plan-Wide Activities and Very Low Density Use (see Section 2, Plan Description), other game and non-game species that are not currently listed or recommended for listing by State or Federal agencies and that are not covered by the Plan – such as the Florida black bear – will also benefit from these conservation actions.

For the status, distribution, habitat utilization, and occurrence of each Covered Species within the HCP Area, please refer to Section 4 (Florida Panther) and Section 5 (Other Covered Species) of this document.

1.6 REGULATORY FRAMEWORK

1.6.1 Federal Endangered Species Act

Section 9 of the Act and Federal Regulations enacted pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." ESA § 3(19). Harm is further defined by the USFWS to include significant habitat modification or degradation that results in death or injury to listed species "by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Harass is defined as intentional or negligent actions that create the likelihood of injury to listed species by annoying them "to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering." Incidental take is defined as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." 50 CFR § 17.3.

Pursuant to section 11(a) and (b) of the Act, any person who knowingly violates section 9 of the Act or any permit, certificate, or regulation issued pursuant to section 9, may be subject to civil penalties of up to $25,000 for each violation or criminal penalties up to $50,000 and/or imprisonment of up to one year.

Individuals and State and local agencies proposing action that may result in the take of federally-listed species may apply for an ITP under section 10(a)(1)(B) of the Act to maintain compliance with the law. Such permits are issued by the USFWS when take is not intentional, and is incidental to otherwise legal activities. An application for an ITP must be accompanied by an HCP. Under section 10(a)(1)(B) of the

Act, the anticipated take to be authorized must be incidental, the applicant must "minimize and mitigate the impacts of" take "to the maximum extent practicable," the authorized take must not "appreciably reduce the likelihood of the survival and recovery of the species in the wild," and adequate funding for the plan must be ensured.

Section 7 of the Act requires Federal agencies to ensure that their actions, including issuing permits, are "not likely to jeopardize the continued existence of [federally-listed] species or result in the destruction or adverse modification of habitat of such species. ESA § 7(a)(2). "Jeopardize the continued existence of" pursuant to 50 CFR § 402.02, means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." Issuance of an incidental take permit under section 10(a)(1)(B) of the Act by the USFWS is a Federal action subject to section 7 of the Act. Under section 7, the USFWS is required to consult with itself (i.e., conduct an internal consultation), as well as other Federal agencies.

Under ESA section 7, cumulative effects are effects of future State or private actions that are reasonably certain to occur in the action area, which is defined by the influence of direct and indirect impacts of the Federal action.

1.6.2 The Section 10(a)(1)(B) Process: HCP Requirements and Guidelines

Although the Section 10(a)(1)(B) process is iterative and often non-linear, the process includes four primary phases: (1) pre-application; (2) development of the HCP and environmental compliance documents; (3) application processing, permit decision-making, and issuance of the ITP; and (4) the post-issuance phase, including implementation of the HCP and compliance monitoring. HCP Handbook at 2-1.

During the first phase, USFWS provides guidance to prospective applicants, and determines the level of analysis required under the National Environmental Policy Act (NEPA)based on the nature and scale of the HCP.

During the second phase, the applicant prepares a plan that integrates the proposed project or activity with the protection of listed species. An HCP submitted in support of an ITP application must include the following information:

- impacts likely to result from the proposed taking of the species for which permit coverage is requested;
- measures that will be implemented to monitor, minimize, and mitigate impacts; the funding that will be made available to undertake such measures; and the procedures to deal with unforeseen circumstances;
- a description of alternative actions that the applicant considered, and an explanation of why those alternatives were not selected; and

- additional measures USFWS may require as necessary or appropriate for purposes of the plan.

HCP Handbook at C-1. The HCP development phase concludes and the permit processing phase begins when a complete application package is submitted to the appropriate permit-issuing office. A complete application package consists of (i) a draft HCP, (ii) an Implementing Agreement (IA), if applicable, (iii) a permit application, and (iv) payment of a $100 fee by the applicant(s). HCP Handbook at 2-13. USFWS is required to publish a Notice of Availability of the HCP package in the Federal Register and allow for public comment. The USFWS also prepares an Intra-Service Section 7 Biological Opinion and a Set of Findings, which evaluates the Section 10(a)(1)(B) permit application in the context of permit issuance criteria (see below). An Environmental Action Statement, Environmental Assessment, or Environmental Impact Statement serves as the USFWS's record of compliance under NEPA, and is subject to public comment. As noted in the Executive Summary, USFWS published a notice of intent to prepare an EIS in the Federal Register in March 2016 (81 Fed. Reg. 16,200 (March 25, 2016)), held a public scoping meeting on April 12, 2016, and has begun drafting an EIS analyzing the proposed ITPs.

During the third phase, USFWS oversees the public review process and undertakes decision-making. This phase includes development by USFWS of a document that describes USFWS's findings and provides a basis for USFWS's permitting decision. The third phase ends with USFWS's permit issuance decision. Pursuant to ESA § 10(a)(1)(B), USFWS will issue an ITP if the following statutory criteria for issuance of the permit are met:

- the taking will be incidental;
- the impacts of incidental take will be minimized and mitigated to the maximum extent practicable;
- 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;
- the applicant will provide any additional measures that the Secretary of the Interior requires as being necessary or appropriate; and
- the Secretary of the Interior has received any other assurances, as may be required, that the HCP will be implemented.

The public is notified of permit issuance by publication in the Federal Register.

During the fourth phase, the permittee and other responsible entities implement the Plan, and the USFWS monitors the permittee's compliance with the Plan as well as the long-term progress and success of the Plan.

1.6.3 National Environmental Policy Act

The purpose of NEPA is two-fold: to ensure that Federal agencies examine environmental impacts of their actions (in this case, deciding whether to issue an ITP) and to inform and involve the public. NEPA serves as an analytical tool to consider direct, indirect, and cumulative impacts of the proposed action and alternatives to help the USFWS decide whether to issue an ITP. The USFWS will complete a NEPA analysis as part of the ITP application process.

1.6.4 National Historic Preservation Act

All Federal agencies are required to examine the cultural impacts of their actions (e.g. issuance of a permit). This may require consultation with the State Historic Preservation Office and appropriate American Indian tribes. All ITP applicants are requested to submit a Request for Cultural Resources Compliance form to the USFWS. To complete compliance, the applicants may be required to contract for cultural resource surveys and possibly provide mitigation to address the impacts on cultural resources, if any, of authorizing incidental take of listed species.

1.7 COUNTY-LEVEL PLANNING AND ZONING

The Plan builds upon, and closely integrates with, Collier County's planning and zoning framework for lands within eastern Collier County. This section briefly summarizes the recent history of planning and zoning in eastern Collier County, the evolution of the County's innovative program to protect natural resources and agriculture while allowing for economic development, how that program underpins several key elements of the Plan, and how the Plan builds on the RLSP to provide significant conservation value beyond what is possible under the RLSP alone.

1.7.1 Background

In the late 1990s, the State of Florida challenged Collier County's comprehensive plan, contending that the required conservation elements would not sufficiently protect natural resources (including listed species and their habitats). Environmental NGOs intervened in support of the State. The challenge was upheld by a Florida administrative law judge in a March 1999 ruling. In June 1999, Governor Jeb Bush issued Final Order AC-99-02, which directed Collier County to perform an assessment of 195,000 acres in eastern Collier County (known as the "Immokalee Area Study"). Specifically, the order required that the assessment address long-term planning issues in order to balance natural resource protection, agriculture, and economic development within the 195,000-acre area.

Between 1999 and 2002, the applicants collaborated with Collier County, environmental NGOs, consultants, local citizens, and State agencies to complete the assessment, and to develop new comprehensive planning strategies and policies that would satisfy the requirements of the State's Final Order. The initial efforts involved a thorough compilation, mapping, and synthesis of natural resource and land use data for the 195,000-acre area, to serve as an objective and verifiable basis for planning and natural resource protection. The datasets collected through this process were entered into GIS to

allow for spatial analyses, data visualizations, data updating, and reporting. A report synthesizing this information was submitted to Collier County in December 2000.

Between 2000 and 2002, stakeholders utilized the GIS data to develop and test various scenarios for meeting the requirements of the Final Order. The stakeholders realized that any attempt to simply impose restrictive new zoning regulations would seriously compromise any chance of creating a broadly supported and viable long-term plan for the area. Collaborative stakeholder engagement likely would have ceased as a result of new zoning restrictions that would have effectively imposed the most restrictive burdens on those property owners who possessed the highest value natural resources, preventing those property owners from realizing the economic value of their land, including the benefits of future development and continued agricultural land use. Moreover, State of Florida statutes require that any such change that compromises private property vested rights (e.g., "downzoning" property) be considered a taking that must be compensated economically by the government entity imposing the change (Chapter 70, Florida Statutes). In short, simply imposing new zoning and/or land use regulations in eastern Collier County would likely have been counterproductive, logistically difficult, subject to protracted legal challenges, and ultimately unworkable.

As various scenarios were considered (with a 2002 Final Order deadline looming), the stakeholders understood that any effort to successfully achieve a long-term balance between agriculture, natural resource conservation, and economic development must recognize the potential economic value of *each* of these activities, and be available to all property owners within the 195,000-acre area. A breakthrough occurred when the parties concluded that economic development, primarily master-planned residential and commercial development, must be directly and quantifiably tied to permanent conservation benefits that could achieve the desired balance for future land uses. Ultimately, this collaborative process resulted in a system for calculating "credits" generated by protecting environmentally sensitive lands, and established procedures for calculating how many credits would be required to entitle a proposed development. Although the system possessed some similarities to Transfer of Development Rights (TDR) programs, this system provided more economic and regulatory incentives to protect the highest-quality natural environments, and allowed more flexibility to property owners for relinquishing various land-use rights. The resulting system was carefully calibrated, using GIS, to generate a total number of credits that could entitle a maximum development footprint within the 195,000-acre area. The plan was designed as a "closed system," so a maximum development footprint would leave the balance of the area as agricultural lands and native habitats.

This credit system became the basis for new planning policies and amendments, and was codified as the Collier County Rural Land Stewardship Program (RLSP).[3] The RLSP, approved by Collier County and the State of Florida in 2002, offers landowners a voluntary alternative to existing zoning, at the option of the

[3] The acronym "RLSP" is used throughout this document to refer to the Rural Land Stewardship Program and its associated elements. The Collier County Land Development Code (LDC), which implements the RLSP, utilizes the acronym "RLSA" to refer to the Rural Land Stewardship Area, the geographic area within which the County's RLSP policies and codes apply.

property owner, and provides for a more strategic and environmentally sensitive balance between conservation and development. Because entry into the program is purely voluntary for each property owner, no downzoning or property rights issues are triggered. As of this writing, the RLSP has operated continuously for 15 years, and has proven successful in meeting the policy goals for balanced economic development, agricultural land use, and permanent protection of environmentally sensitive lands.

1.7.2 Rural Land Stewardship Program (RLSP) Basics

Prior to the 2002 adoption of the RLSP, the zoning in eastern Collier County was (and to this day remains) one dwelling unit per five-acre area. This zoning plan can result in low-density growth patterns that fragment habitat, create inefficiencies in infrastructure and services, and generally complicate effective conservation actions. These low-density patterns are found immediately west of the HCP Area in the area known as “Golden Gate Estates” (see Figure 2-1, aerial imagery on left side of figure).

The RLSP did not change the underlying zoning of eastern Collier County, for the reasons outlined in the previous section. Rather, the RLSP operates as a zoning overlay, where the standards and criteria defined for the RLSP are applicable only if a property owner within the RLSA voluntarily elects to enter the program. Property owners may elect to enter the program when they wish to develop their property at densities greater than one dwelling unit per five acres, when they wish to set aside environmentally sensitive lands for protection, when they wish to receive credit for permanently limiting land uses to agriculture, and/or when they want to undertake other allowable activities incentivized by the program.

The RLSP creates incentives for property owners to protect environmentally sensitive lands (sending areas) permanently, in exchange for “stewardship credits” that can be used, traded, or sold to entitle compact forms of development (receiving areas) at higher densities than baseline zoning. RLSP policies mandate that compact development at higher densities can only occur within those areas that have been mapped as having limited natural resource values (i.e., previously cleared areas), and then only through the use of stewardship credits. Stewardship credits are only recognized after a perpetual “Stewardship Easement” is recorded for the land parcel being protected. The easement runs with the land in favor of Collier County and a State agency such as the Florida Department of Agriculture and Consumer Services (FDACS), the Florida Department of Environmental Protection (FDEP), or the South Florida Water Management District (SFWMD).

Under the RLSP, the local approval process for sending areas and receiving areas involves applicant submittal of a technical report that characterizes the sending area’s natural resources and credits generated, a rigorous application review by county planning and environmental staff, issuance of a staff report to the Collier County Board of County Commissioners, a public hearing before the commissioners (with a minimum 15 days’ notice in local newspapers), and majority approval of a resolution by the Board. Easements are recorded in the official County records after Board approval.

For property owners who enter the RLSP and seek to develop land at densities greater than existing zoning, Collier County will not issue any development approvals until the owner obtains (generates or purchases) the quantity of stewardship credits necessary to entitle the development. In essence, this

mechanism ensures that the construction of higher-density development (receiving areas) cannot commence until after the associated sending areas are under permanent protection with recorded easements.

The stewardship credit system was calibrated in a manner that protects several acres of native habitat and/or open space in exchange for one acre of higher-density development (the exact ratio depends upon habitat quality and other environmental factors). Implementation of the RLSP is intended to preserve the large regional wetland flowway systems and large blocks of interconnected upland and wetland native habitats that occur within the program area. Skeptics of the RLSP questioned whether the program would protect environmentally sensitive lands as planned. To date, however, over 50,000 acres have been designated for protection under the RLSP, including the vast majority of one regional flowway, and 20,000 acres of high-value panther habitats directly adjacent to the FPNWR and BCNP. A five-year review of the RLSP completed in 2009 concluded that the program was meeting the policy objectives it sought to achieve (Collier County 2009).

The five-year review resulted in a recommendation that residential and commercial development be capped at 45,000 acres within the RLSA. In order to reach that development cap, the balance of the HCP Area (approximately 107,000 acres, or 70 percent) would be protected permanently, in return for sufficient stewardship credits to entitle the development. Another recommendation was to increase the incentives for agricultural preservation, in order to preserve open space, agriculture, and the rural economy. This landscape-scale mosaic of native habitats and agricultural uses currently supports the Covered Species, as well as other species.

Since 2002, the RLSP policies have been implemented through the Collier County Land Development Code, which provides the detailed standards, procedures, protection mechanisms, site design criteria, and related program elements. The documentation may be accessed online at: https://library.municode.com/fl/collier_county/codes/land_development_code; see Section 4.08).

Several aspects of the RLSP provide assurance that the protection of environmentally sensitive lands (sending areas) will precede any local approvals to begin development activities within designated receiving areas:

- Lands within the RLSA cannot be developed at densities greater than existing zoning (1 dwelling unit per 5 acres) unless a property owner voluntarily enters the program;
- Stewardship credits can only be generated (and officially recorded in the County ledger) through the designation of environmentally sensitive lands as sending areas, which requires the recording of perpetual easements over those lands;
- A receiving area (and its associated development plans) cannot be approved by Collier County unless/until the applicant can demonstrate that it possesses a sufficient number of stewardship credits;

- Therefore, no construction activities within receiving areas may commence until the Collier County staff and the Board of County Commissioners have verified that the required stewardship easements over the associated sending areas have been recorded; that the applicant possesses a sufficient number of credits to entitle the development; and the receiving area development plans are in compliance with the Collier County Land Development Code, Section 4.08.

- Stewardship credits can only be generated and utilized within the RLSA. The system was initially calibrated to limit the extent of potential future development. Current proposed RLSP amendments would enforce a strict cap for receiving areas of 45,000 acres total, and the system would be recalibrated to achieve that policy goal.

Many factors provide assurance that the RLSP will remain in place through the 50-year term of the ITP:

- The RLSP has been in place for over 15 years, and the program is working as designed;

- The RLSP is considered a great planning success by Collier County commissioners, staff, and RLSP stakeholders;

- The first development under the RLSP – the Town of Ave Maria – brought mixed-use economic development to the area and preserved over three acres of environmentally valuable lands for every acre of development;

- The tax base for Collier County is increased by the new developments, and the sending areas (placed under perpetual easements) remain on the County tax rolls;

- All of the requirements of the 1999 Final Order are satisfied through the adoption and implementation of the RLSP.

The RLSP is unlikely to be changed substantially or replaced. If the RLSP were discontinued, all of the benefits listed above would cease. The county's comprehensive plan would no longer be in compliance with State regulations, and new natural resource protection measures would need to be developed for eastern Collier County (a process that spanned three years until the RLSP was created). There would be a high likelihood of litigation resulting from any new comprehensive plan element for the area, brought by property owners and/or third-party challenges. In short, the RLSP is working so well, and the downsides of changing it substantially are so great, that the probability of such change is exceptionally low.

1.7.3 Added Benefits of the Plan

The RLSP and the Plan work in concert through a combination of economic incentives and regulatory mechanisms to achieve a balanced, sustainable future for the region. The Plan builds upon the goals of the RLSP and increases substantially the conservation benefits that are possible under the RLSP to create a long-term balance between environmental preservation, listed species protection, agriculture, and economic development.

The Plan will integrate with and reinforce the RLSP elements addressed in the section above. The permit holders would be the ECPO members listed in Section 1.3. Property bordering the HCP Area owned by other entities could become part of the Plan through Certificates of Inclusion, if acceptable to USFWS (see Section 2.4). The Plan itself limits future development to those lands depicted on Figure 2-1 as "Covered Activities," and caps that development at 45,000 acres. Additionally, under the terms of the ITP, any development within the HCP Area must provide compensation for panther habitat loss in the form of panther habitat units (PHUs; see Chapter 4). The Plan verifies that sufficient PHUs can be generated by the 107,000 acres set aside for protection in perpetuity, and all of those PHUs will be required as compensation if the 45,000-acre cap is reached.

In addition, the Plan will use the framework provided by the RLSP to provide benefits that extend well beyond those that would be possible through the RLSP alone. These benefits include the following:

- Landscape-level planning that will result in greater conservation benefits than would exist under uncoordinated participation in the RLSP, including ensuring preservation of regional wildlife habitat corridors that allow for movement of wildlife among existing public conservation lands in Southwest Florida;
- Incorporation and implementation of the Florida Panther Protection Program (FPPP)[4], a collaboration between ECPO and several leading conservation organizations that integrates a variety of programs, studies, and strategies to enhance and fund a science-based program "to better protect and manage the Florida panther in southwest Florida." (FPPP 2010).
- Creation and funding of the Marinelli Fund, which will be used for conservation activities that will benefit the Florida panther, as well as other wildlife;
- Collaboration and coordination with the Service and FWC; and
- Additional monitoring required under the ITPs that is not required under the RLSP.

The requested term of the ITPs – 50 years – will allow for planning, permitting and completion of contemplated or foreseeable development within the portion of the HCP Area designated for Covered Activities, and for implementation of conservation actions that benefit Covered Species in the portions of the HCP Area designated for Preservation/Plan-Wide Activities and Very Low Density Use.

[4] "The purpose of the Florida Panther Protection Program …is to facilitate the management and protection of panthers within the Enhanced Protection Area [i.e., RLSP/Plan area] by providing a contiguous range of preserved panther habitat in the Enhanced Protection Area to assist recovery through the use of buffering against panther-human interaction, locating and construction of panther crossings, and the protection, enhancement, restoration, including corridor enhancement or restoration, or acquisition of panther habitat demonstrated to be important to panther protection and management within the Enhanced Protection Area based upon a technical review and analysis of available data..." (excerpt from FPPP MOU between Rural Landowners and Conservation Organizations, June 2008).

1.8 SUMMARY OF ALTERNATIVES TO THE ECMSHCP

Chapter 10 of this document describes four basic alternatives considered by the applicants (ECPO), and the reasons why the Plan emerged as the preferred alternative. The four alternatives included: Existing Zoning (no HCP); the Proposed HCP (Plan); a Panther-Only HCP; and a Panther Review Team (PRT) HCP Configuration.

When assessing these four alternatives, it is useful to consider a 2006 academic study of statewide population growth and projected land use, and specifically the projected land use patterns for eastern Collier County. The "Florida 2060" report (Zwick and Carr 2006) utilized population projections from 2005-2060, the existing gross urban densities (as of 2005), and estimates of developable land (considering proximity of urban centers; road densities; and absence of wetlands) to model population distributions on 1-acre grid cells in GIS.

Figure 1-2 depicts the Florida 2060 data within the RLSP. In this modeled scenario, approximately 135,000 acres of land would be developed and populated. Note that the study did not take into account the 2002 Collier County comprehensive plan amendments that effectively limited some of this potential development. This 2060 scenario would impact most of the native habitat acreage in eastern Collier County, and would disconnect and fragment regional flowways and wildlife corridors.

The existing Collier County zoning within the HCP Area allows for one dwelling unit per five-acre area, and thus defines one baseline alternative to the Plan. Figure 1-3 illustrates the extent of potential development for the "Existing Zoning" alternative, using the same color scheme as Figure 1-2 to allow for visual comparisons. Under the existing program, over 90,000 acres of land within the RLSP area are designated as "Open" to allow potential development. Approximately half of this acreage could be developed if property owners voluntarily entered the RLSP and developed within receiving areas. Those owners who voluntarily chose not to enter the program and elected to develop at the existing 1:5 zoning could develop the other half of the "Open" lands, bringing the total development footprint (RLSP and existing zoning) to over 90,000 acres. This scenario would preserve the core of the regional flowways, large blocks of habitat, and wildlife corridors, but would preserve far less land and native habitats than the proposed HCP.

The proposed HCP (Plan), schematically depicted in Figure 2-1, occupies approximately 152,000 acres within the RLSA, and proposes up to 45,000 acres of development (see Chapter 2). The balance of the HCP Area, 107,000 acres, would be placed under perpetual easements that run with the land. The proposed HCP limits potential development, preserves the greatest land acreage, preserves the greatest extent of native habitats, and protects the existing flowways and wildlife corridors within the RLSP. The proposed HCP provides an integrated conservation plan for the Florida panther and eighteen other species on a landscape scale, while the other alternatives lack a long-term plan and would result in ad-hoc development patterns and mitigation.

The third alternative, a "Panther-Only HCP," would cover the same land area as the proposed HCP (Figure 2-1), but would only cover the Florida panther under the terms of the ITPs. The eighteen other

Covered Species would be evaluated by the relevant permitting authorities on a project-by-project basis, and conservation actions for those species would be determined for each project. While the panther would benefit from an integrated conservation plan under the ITPs, the other species would not be "Covered Species."

The "Panther Review Team (PRT) Configuration" alternative accommodated up to 45,000 acres of development, similar to the proposed HCP (see section 10.4). Although much of the potentially developable land area in this alternative overlaps with the proposed HCP (Plan), the PRT configuration proposed some additional area for preservation, additional buffers along the Camp Keais and Corkscrew systems, and different configurations for two panther corridors. However, the PRT alternative included non-ECPO lands outside the HCP Area in its analyses (see Figure 2-1 and Section 2.4). While those lands could eventually be included in the Covered Lands, they are not currently in the Plan. Additionally, the configuration of land ownership and landowner interests do not align with the PRT configuration, rendering the alternative impracticable.

In summary, the proposed Plan represents the preferred alternative and the best opportunity for perpetual preservation of habitats for the Florida panther and the eighteen other Covered Species. The existing zoning for the RLSP could result in a development footprint of over 90,000 acres, while the development footprint within the HCP Area would be limited to 45,000 acres. In comparing the proposed HCP to a "Panther-Only HCP," there are clear conservation and regulatory benefits to including the eighteen other Covered Species. Finally, although the PRT alternative proposed a similar development footprint as the proposed HCP, the PRT configuration includes non-ECPO lands outside of the HCP area, and does not align with land ownership patterns and landowner interest. The proposed HCP therefore represents the preferred and most practicable alternative.

1.9 CONCLUSION

The Plan furthers the goal of panther conservation, and conserves many other federally-listed and state-listed species, by working with USFWS to incorporate RLSP and FPPP program elements in a formal plan under Section 10 of the ESA. The RLSP and the Plan synergistically provide assurances at the local and federal levels that conservation measures will be implemented, and that a long-term balance of land uses will be achieved. Using the framework established by the RLSP, the Plan provides landscape-level planning and other benefits that extend well beyond that the RLSP could accomplish alone.

Once issued, the ITPs will specify the rights and responsibilities of all parties to the Plan, and legally bind the parties to its provisions. After several decades of panther research, meetings, agency outreach, and discussions, this Plan finally provides a viable science-based, legally binding mechanism for the realization of Florida panther habitat preservation on private lands, along with preservation of other Covered Species habitat, and a long-range vision for sustainable regional planning in eastern Collier County.

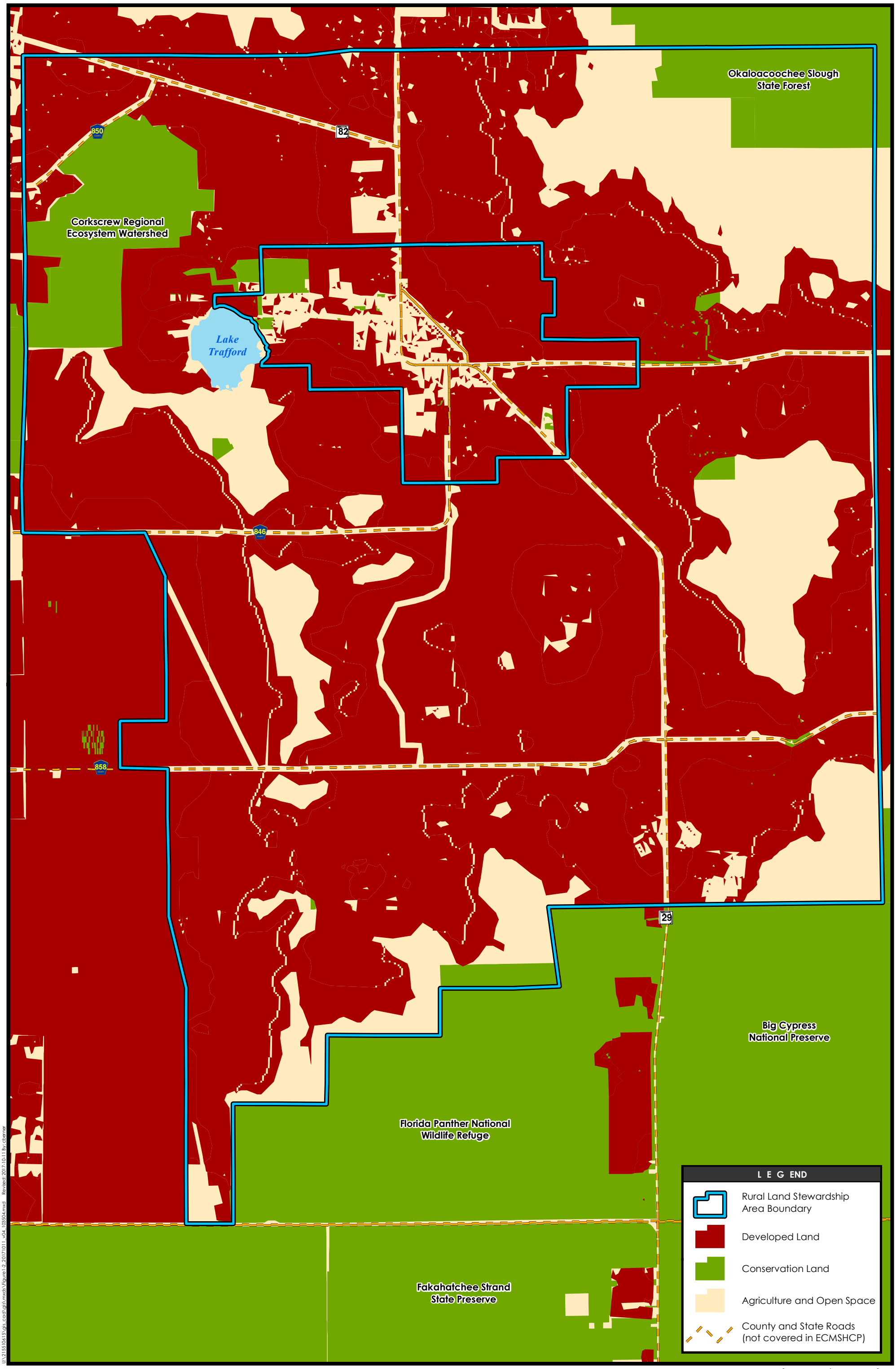

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FIGURE 1-2
Florida 2060 Projected Development
November 2017

Stantec Consulting Services Inc.
5801 Pelican Bay Blvd. Suite 300
Naples, FL 34108
tel 239.649.4040
fax 239.263.6449

Southwest Florida Road Hot Spots

Based on Documented Florida Panther Vehicle Mortalities and Injuries as of December 31, 2016

Transportation SubTeam Report

to

Florida Panther Recovery Implementation Core Team

August 2017

METHODOLOGY

- Buffered all roads by 200 meters in ArcGIS
- Created a 1 km buffer around each panther-vehicle collision (deaths and injuries)
- Clipped the portion of the road buffers that fell within the 1 km buffer around each collision site
- Combined overlapping segments into a single segment
- Joined collision data to combined road segments
- Created "count" field

Categories of severity are based solely on Florida panther-vehicle collisions.

Final shapefile is a collection of road segments containing separate panther-vehicle collision sites within 1 km of each other.

Road segments vary in length and have an associated count field reporting how many collisions occurred in a particular segment.

Hot Spot categories (Count Fields): **Red 9+ deaths Orange 6-8 deaths Green 3-5 deaths Blue 1-2 deaths**

Road segments exempted where collisions occurred prior to installation of crossings/fencing (e.g. I-75 Alligator Alley).

Road segments included with existing crossings/fencing that do not adequately alleviate hot spots (e.g. CR846 and segments of SR29).

NOTICE

The Transportation SubTeam is working to identify potential funding sources at the local, state, and federal level.

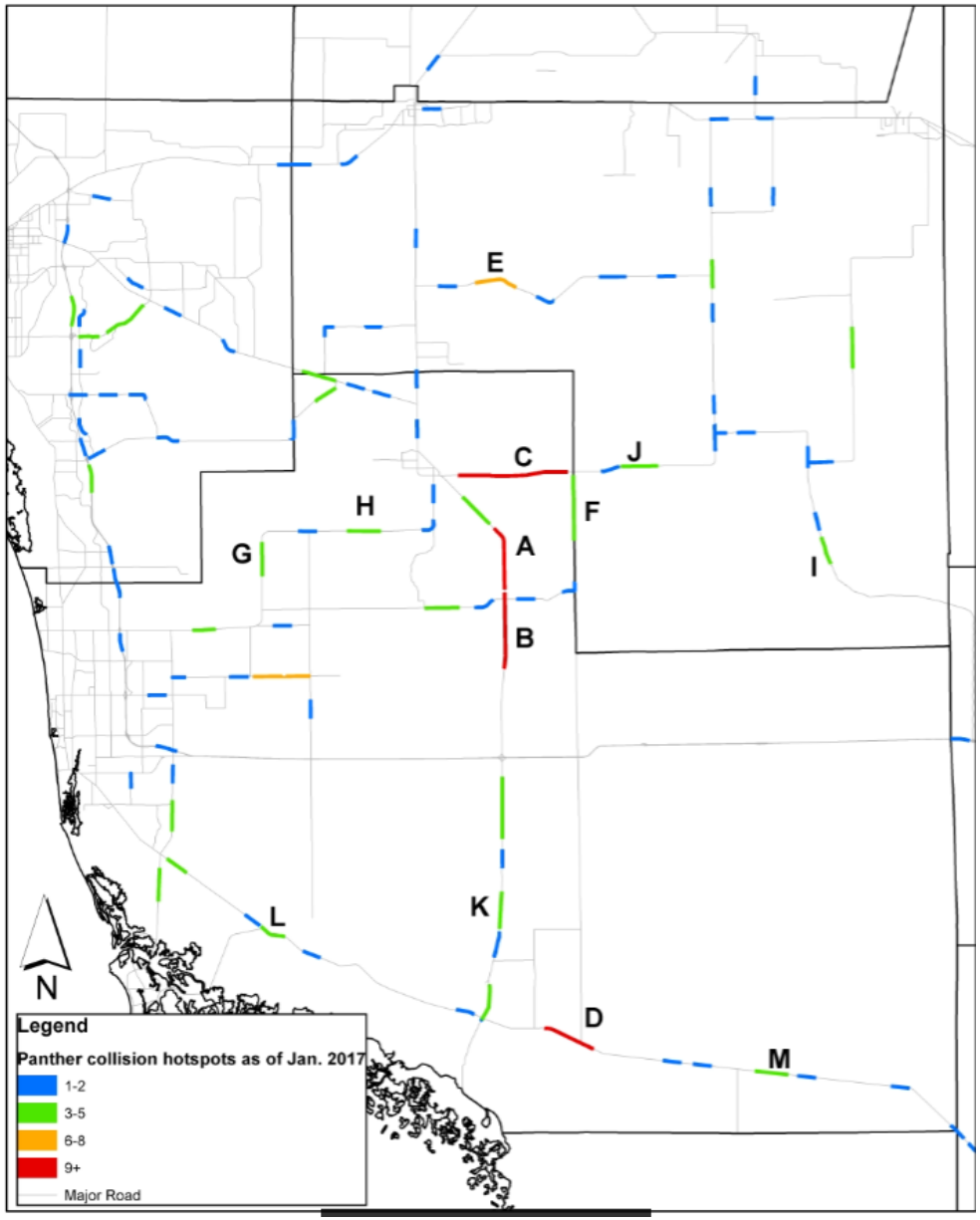
This is a living document. When amended periodically with additional vehicular deaths and injuries, the severity of road segments may elevate.

Severity may not dictate order in which crossings/fencing or other features are installed.

Additional information, such as telemetry, land cover, and land ownership, shall also be considered when determining the placement of crossing features. The Florida Department of Transportation's (FDOT) 2016 Wildlife Crossings Guidelines should be consulted. The FDOT Guidelines are attached to this report.

Four hot spots on I-75/Alligator Alley have been removed from the map and table since the 9 miles fencing between the Naples Toll Booth and Faka-Union Canal and terrestrial wildlife ledges under the Faka-Union and Miller canal bridges are completed. These measures are expected to greatly reduce road kills in this area. Efforts to improve connectivity on the western end of this segment continue.

HOT SPOTS: **Red 9+ deaths** **Orange 6-8 deaths** **Green 3-5 deaths** **Blue 1-2 deaths**



HOT SPOTS: **Red 9+ deaths** **Orange 6-8 deaths** **Green 3-5 deaths** **Blue 1-2 deaths** ***Some measures completed**

Map Location	Road Segment	Deaths	Comments
A	SR29 north of CR858 Collier County	**Red**	Cooperating landowners at Owl Hammock Curve south of town of Immokalee, Collier Enterprises & King Ranch, within proposed Eastern Collier HCP area FDOT PD&E (see Project Status page) 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report
B	SR29 south of CR858 to Florida Panther NWR Collier County	**Red**	May have cooperating landowners within proposed Eastern Collier HCP area FDOT PD&E (see Project Status page) 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report
C	CR846 east of Immokalee Collier County	**Red***	Cooperating landowner, Barron Collier, within proposed Eastern Collier HCP area Collier County bridge replacement designs include panther/ wildlife ledges 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report
D	US41, Turner River Collier County	**Red***	RADS study completed and FDOT funding proposal for improvements under consideration 2016 Report Assessing the Effectiveness and Reliability of the Roadside Animal Detection System on US Highway 41 near the Turner River in Collier County Night Slow Speed Zone, 45 mph (Day = 60 mph)
E	CR832, Keri Road Hendry County	**Orange/Blue**	Western section crosses OK Slough public conservation lands network May have cooperating landowners Night Slow Speed Zone 45 mph (Day = 55mph) through OK Slough public conservation lands network

HOT SPOTS: **Red 9+ deaths** **Orange 6-8 deaths** **Green 3-5 deaths** **Blue 1-2 deaths** ***Some measures completed**

Map Location	Road Segment	Deaths	Comments
F	CR858 (County Line Rd) Collier/Hendry line	**Green**	May have cooperating landowners, within proposed Eastern Collier HCP area Collier County bridge replacements 2009 Florida Panther Program Technical Review Team Report
G	CR846 (N-S) East of CREW Collier County	**Green**	Collier County may reroute road eliminating curve, 846 Land Trust owns property on east Conservation land on west side (CREW)
H	CR846, Camp Keais Strand Collier County	**Green***	May have cooperating landowners, within proposed Eastern Collier HCP area 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report Experimental crossing built in 2013 and study is ongoing, limited fencing
I	CR833 at CR 832 Aka McDaniel Ranch Hendry County	**Green**	May have cooperating landowner, FPL Energy
J	CR846 (Crow's Nest Hammock) Hendry County	**Green**	May have cooperating landowner, within King Ranch Sector Plan area
K	SR29 south of I-75 Collier County	**Green/Blue**	Conservation lands on both sides, Two existing crossings Night Slow Speed Zones, 45 mph (Day = 60mph)
L	US41, Collier-Seminole Park Collier County	**Green/Blue**	Picayune Restoration US41 culverts Conservation lands Night Slow Speed Zone, 45 mph (Day = 60 mph)
M	US41, Big Cypress NP	**Green**	Conservation lands

HOT SPOTS: **Red 9+ deaths** **Orange 6-8 deaths** **Green 3-5 deaths** **Blue 1-2 deaths**

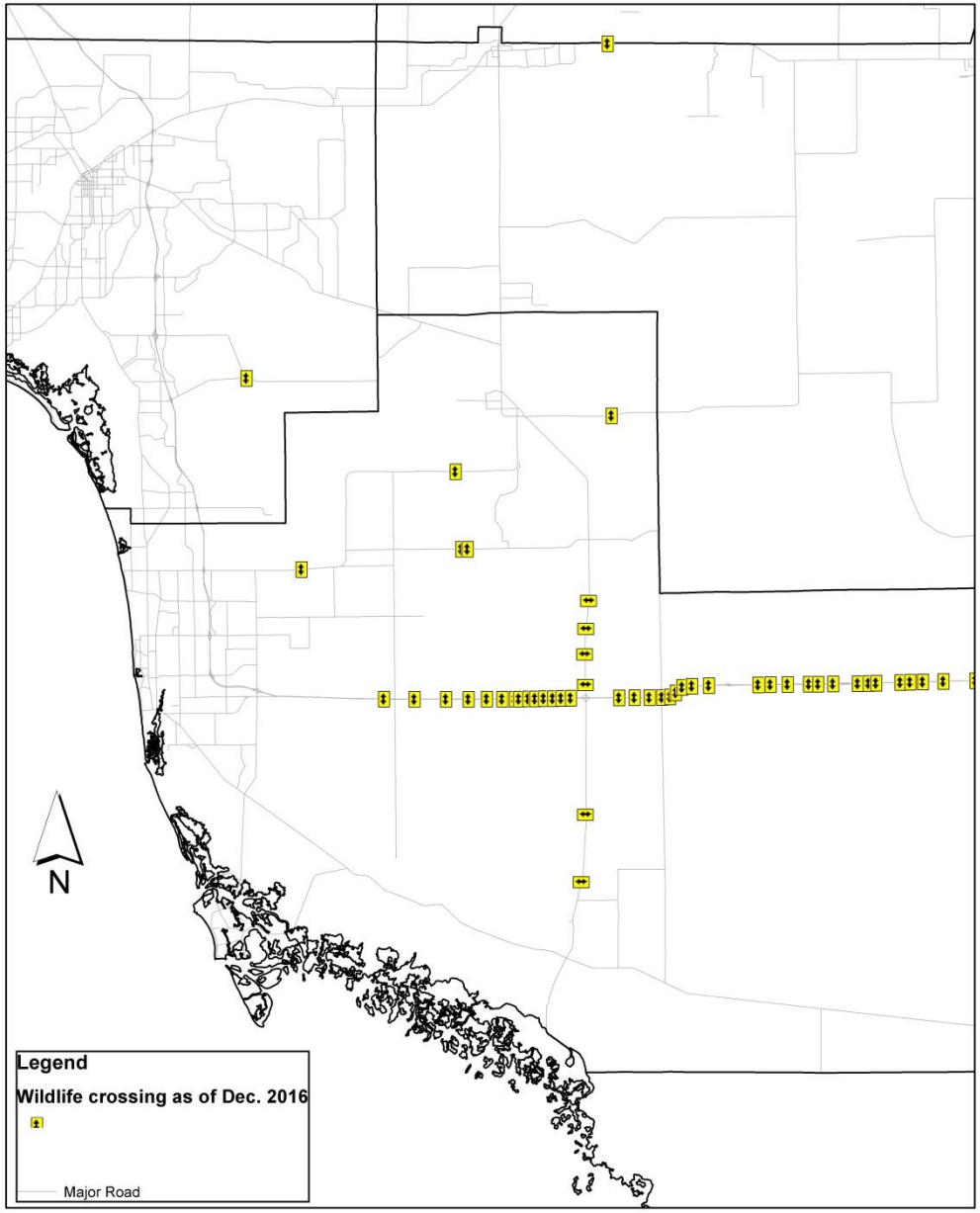
Road Segment	Deaths	Comments
CR858 east of SR29 Collier County	**Blue**	Collier County bridge replacements May have cooperating landowners, within proposed Eastern Collier HCP area 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Committee
CR858 west of SR29 Summerland Swamp Collier County	**Blue**	May have cooperating landowners, within proposed Eastern Collier HCP area 2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Protection Program Technical Review Team Report
CR850, Corkscrew Road Lee/Collier line	**Blue**	Collier County managed road Private lands on west side in Lee County
SR82 Collier County	**Blue**	FDOT planning wildlife crossing features at Under Canal (west of Corkscrew Road) and Panther Creek (east of Corkscrew Road) bridge replacements. Cooperating landowners, Alico and King Ranch. 2009 Florida Panther Protection Program Technical Review Team Report

ADDITIONAL HOT SPOT SEGMENTS

Golden Gate Boulevard between Wilson Blvd and Everglades Blvd in North Golden Gate Estates, Collier County, falls into the **orange (6-8)** classification. This segment is not detailed in the chart because North Golden Gate Estates is a large platted area of single-family lots that would make providing panther connectivity a challenge. Our recommendation for addressing this hot spot is driver education, public outreach programs, and speed enforcement.

Also, while there may be additional segments with **3-5** and **1-2** recorded deaths; they are not noted in detail. Where there may be crossing opportunities at the time of writing, those segments are included in this report. These roads should be monitored because they may intersect with known or intended regional habitat linkages. The status may be elevated due to mortalities and/or further evaluation of telemetry, land cover, and other factors.

Existing Wildlife Crossing Locations, December 2016



Project Status Sheet

Road Segment:	**SR29 from CR858 (Oil Well Road) to south of Immokalee (CR 846) (Owl Hammock)** Collier County State managed road Abutting landowners, King Ranch and Collier Enterprises, expressed willingness to cooperate with installation of wildlife crossing(s) at Owl Hammock Curve Within the proposed Eastern Collier Habitat Multi-Species Conservation Plan
Map Location:	A
Deaths:	Red, 9+ deaths
PD&E Status:	PD&E on-going (estimated completion Winter 2018) FPID 417540-1, SR 29 from Oil Well Road to SR 82
Design/Construction Funding Snapshot:	As of 6/2017, design Not Funded for FPID 417540-2, SR 29 from CR 858 to Sunniland Nursery Road 417540-3 and -4, SR 29 from Sunniland Nursery Road to CR 846 funded for design in fiscal year 2019
Possible Solutions:	Bridge replacement of SR 29 over Gator Creek (Owl Hammock)
Constraints:	PD&E approval, future FDOT phases lack ROW and construction funding.
Costs:	Two-lane bridge with shelves = $2,000,000 Four-lane bridges with shelves = $4,000,000
Commitments:	none, PD&E pending
Resources:	2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Technical Review Team Report 2016 FDOT Wildlife Crossings Guidelines

Project Status Sheet

Road Segment:	**SR29 south CR858 (Oil Well Road) to Florida Panther National Wildlife Refuge** Collier County State managed road Abutting landowners, Barron Collier and JB Ranch, may be willing to cooperate Within the proposed Eastern Collier Multi-Species Habitat Conservation Plan
Map Location:	B
Deaths:	Red, 9+ deaths
PD&E Status:	Feasibility study (pre-PD&E) on-going, PD&E to begin September 2017, FPID 434490-1, SR 29 from I-75 to Oil Well Road (CR 858)
Design/Construction Funding Snapshot:	No future funding beyond PD&E
Solutions:	unknown
Costs:	unknown
Commitments:	none, feasibility study on-going
Resources:	2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Technical Review Team Report 2016 FDOT Wildlife Crossings Guidelines

Project Status Sheet

Road Segment:	CR846 east of town of Immokalee Collier County Collier County managed road Abutting landowner, Barron Collier, may be willing to cooperate. Within the proposed Eastern Collier Multi-Species Habitat Conservation Plan
Map Location:	C
Deaths:	Red, 9+ deaths
PD&E:	None as of July 2017
Solutions:	2006 Eastern Collier County Wildlife Movement Study identified crossing locations Easement protected habitat on both sides of road Three bridges are candidates for wildlife ledges "City Gate" Wildlife crossing completed construction in November 2011. 10 panthers were killed within this hotspot prior to the crossing and as of December, 31, 2016 two panthers have been killed by vehicle collisions since the City Gate crossing was completed.
FDOT Guideline Considerations:	Not required.
Costs:	
Commitments:	Collier County designing bridge replacements with terrestrial wildlife ledges No funding available for replacement bridges and fencing
Resources:	2006 Eastern Collier Wildlife Movement Study 2009 Florida Panther Technical Review Team Report

Project Status Sheet

Road Segment:	US41, Turner River Collier County, Big Cypress National Preserve State managed road
Map Location:	D
Deaths:	Red, 9+ deaths
PD&E Status:	None
Design/Construction Funding Snapshot:	As of 6/2017, no funding programmed
Solutions:	Existing Night Slow Speed Zone Existing Roadside Animal Detection System (RADS) requires improvements
FDOT Guideline Considerations:	Wildlife crossing design features (Page 4)
Costs:	RADS improvements = $250,000
Commitments:	No funding identified for RADS improvements
Resources:	2016 Report Assessing the Effectiveness and Reliability of the Roadside Animal Detection System on US Highway 41 near the Turner River in Collier County 2016 FDOT Wildlife Crossings Guidelines

Project Status Sheet

Road Segment:	Keri Road from SR29 to CR833 Hendry County County managed road
Map Location:	E
Deaths:	**Orange, 6-8 deaths**
PD&E Status:	None
Solutions:	Existing Night Slow Speed Zone Fencing and terrestrial crossings
Costs:	
Commitments:	
Resources:	An Assessment of the Importance of Hendry County Habitat Corridors Used by Florida Panthers and Safe Crossing Needs on Keri Road by UCF

Florida Panther Recovery Implementation Team

Transportation SubTeam

- Core Team Liaison: Elizabeth Fleming, Defenders of Wildlife
- SubTeam Chair: Nancy Payton, Florida Wildlife Federation
- Katasha Cornwell: Florida Department of Transportation
- Amber Crooks, Conservancy of Southwest Florida
- Terry Gilbert, Florida Fish and Wildlife Conservation Commission
- Darrell Land, Florida Fish and Wildlife Conservation Commission
- Xavier Pagan, Florida Department of Transportation
- Gwen Pipkin, Florida Department of Transportation
- Don Scott, Lee County Metropolitan Planning Organization
- Brent Setchell, Florida Department of Transportation
- Dan Smith, University of Central Florida
- John Wrublik, U.S. Fish and Wildlife Service

http://www.fws.gov/verobeach/FloridaPantherRITTransportation.html

December 15, 2017

Melissa Roberts, Administrator
South Florida Water Management District
2301 McGregor Blvd.
Ft. Myers, FL 33901

Re: Rural Lands West, ERP Application #160711-8

Dear Ms. Roberts:

Please accept the following supplemental comments on the pending ERP permit application for Rural Lands West. For the most part these comments are based on the Applicant's October 19, 2017 response to the July 28, 2017 RAI and South Florida Water Management District's (SFWMD's) November 17, 2017 RAI.

1. The Applicant's water management model must take into account water storage by farm fields. Historically, the farm fields in the RLW footprint are entirely flooded with many feet of water throughout the rainy season and act as a reservoir. It is not clear that this storage of water is being considered in the Applicant's water management model. Is the Applicant compensating for this rainy season storage that will be lost due to impervious surfaces that will result from the RLW development?

2. The Applicant's water usage calculations should be based on actual usage for the farm fields, rather than annual allocations in the permits. In its October 19th response to the RAI, the Applicant states that the project will result in significantly overall lower use of water (Pg. 10). However, it appears that the Applicant is using the permit water allocations to support this conclusion. The permit water allocations are annual allocations; however, the permittee

only uses water 4-5 months a year. The rest of the year the fields are fallow and covered with large amounts of water. Thus, the permittee's actual water usage is considerably less than its annual allocations. The Applicant has not made a case that the project will use less water than is currently used on the farm fields. The Applicant should base its calculations on actual historic water usage, not the annual permit allocations. Comparing the projected water usage by residents and commercial centers of RLW to actual farm field usage could very well show that the project will exceed the actual water usage on the farm fields. I understand that even current usage has resulted in the Faka-Union canal in the area of the Naples well field (east Golden Gates Estates) drying up during the dry season.

3. Why doesn't the Big Cypress Stewardship District (BCSD) have to show financial responsibility? In its Oct. 19th response to the RAI, the Applicant states that the BCSD will be responsible for onsite mitigation, including maintenance of conservation areas and wildlife habitat, and goes on to state that the financial responsibility requirements will not apply to BCSD. However, FAC 62-330-301(1)(j) states that an applicant must provide reasonable assurance that mitigation will be conducted by an entity with financial, legal and administrative capabilities and Section 10.3.7 of the ERP manual states that an applicant must provide proof of financial responsibility to successfully carry out the mitigation. The Applicant states that according to Section 10.3.7.1(c) the financial responsibility requirement does not apply to BCSD. Section 10.3.7.1 (c) states that the financial responsibility requirement will not apply to federal, state, county and municipal governments, state political subdivisions, investor owned utilities regulated by the Florida Public Service Commission and rural electric cooperatives. The Applicant has not explained why it thinks that BCSD falls within this exemption.

4. The Applicant must consider runoff from new & expanded roads needed to service RLW in its water management system calculations, yet there is no mention of the additional runoff that will occur due to the many new and expanded roads (onsite and offsite) necessary to serve RLW. Surface water runoff from the new and expanded roads will increase the amount of water that must be handled by the planned reservoirs. If this runoff is not included in the calculations, the discharge rates may be set too high, causing flooding off site.

5. The Applicant should address what impact RLW will have on the restoration efforts at Picayune Strand. RLW is situated in an area that is important for water flow to and through numerous public lands. The Applicant states that its post project discharge will equal it's pre-project discharge based on its modeling. However, it's not clear that the Applicant has considered all factors in its model (as discussed in number 1, 2 and 4 above). The Applicant's discharge rate could be too high for rainy season. Further, the Applicant's model does not address how the project will change the water flow for the region.

6. The Florida Fish and Wildlife Conservation Commission (FWC) did not address whether the project will adversely impact wildlife and wetlands or other surface waters. The FWC in its comments to SFWMD provided comments "as technical assistance" to SFWMD. FWC did not address adverse impacts of the proposed project; most likely because the US FWS has the lead on reviewing the Applicant's incidental take permit and multi-species habitat conservation plan for 45,000 acres of proposed development in the Rural Lands Stewardship Area which includes RLW's 10,265 acres. As you know US FWS is currently preparing an environmental impact statement concerning the proposed development of the Rural Lands Stewardship Area. An EIS is intended to analyze and disclose the effects of a proposed activity and its reasonable alternatives on the environment,

including potentially significant short-term, long-term, direct, indirect, and cumulative effects. This EIS will consider regional impacts on wetlands and surface waters, as well as the impact to federally listed species. Even if FWC has the authority and responsibility to protect and conserve the state's fish and wildlife as the Applicant states, for this particular development US FWS is the lead Agency for making a determination on the adverse impacts, particularly since the Applicant is seeking an incidental take permit for ten federally listed species and six state imperiled species. Even if SFWMD is not required to wait for US FWS comments or input on the ERP application, given the potential regional impacts from the RLW project and the fact that US FWS is evaluating the regional impacts, SFWMD should wait for US FWS's comments.

7. <u>The Applicant should revise its Wildlife Management Plan to lessen the toll on wildlife that will occur due directly to its project activities.</u>

A. The Applicant should include smaller mesh to the bottom portion of the fences for internal Conservation Areas without waiting for a large death toll on small animals. In its April 26, 2017 letter to SFWMD concerning the ERP permit application, FWC says that the fencing for internal Conservation Areas should be 8 feet and recommends that such fencing contain outrigger barbed wire on top and be buried below. In addition, FWC states that if small animals occur within the roads, smaller mesh should be added to the bottom portion of the fence to direct them to the crossing structure. In its June 30th response, the Applicant does not respond to these recommendations. The Applicant should follow FWC's recommendations to add outrigger barbed wire to the fencing, and should definitely include smaller mesh on the bottom. Clearly, small animals (foxes, possums, raccoons, eastern indigo snakes, big cypress fox squirrels, rabbits, turtles and gopher tortoises—to name a few) will get into the residential and

commercial areas, if there are no barriers to prevent this. And who will be keeping tally of the road kill? Please require that the Applicant add smaller mesh to the fencing for the internal conservation areas to help reduce the slaughter of wildlife on the roads.

B. The Applicant should commit to speed limits lower than 45 mph on internal roads. FWC recommended that no road have a posted speed sign of more than 45 mph, and that lower speed limits may be appropriate in areas where wildlife may be at risk of collision with vehicles. Clearly, wildlife will be at risk of collision on the internal roads because new development has replaced their habitat. The FWC recommendation was not limited to internal roads and includes Big Cypress Parkway, Randall Road and Oil Well Road. Oil Well Road currently has a posted speed limit of 45 mph. Forty-five miles per hour will result in the death of any small animal or bird that happens to be on or crossing the road, and would in most cases kill large animals like deer, bobcats and panthers. Day in and day out we see the road kill that occurs on roads posted 45 mph. Here, the situation calls for additional precautions because the project will be located in a rural area that currently provides habitat for wildlife. Wildlife will be displaced starting with the beginning of site clearing and on the move looking for a new home. At the very least, The Applicant should commit to lower speed limits on the internal roads. The Applicant should also ask the County to consider lower speed limits on Oil Well Road, Big Cypress Parkway and Randall Road because of the threat to wildlife.

C. At the beginning of site clearing, the Applicant should add temporary signs on Oil Well Road along the development site that say to the effect “Slow Down, Watch for Wildlife.” When site clearing begins, many animals seeking escape from the area will try to cross existing roads like Oil Well Road, especially at dawn and dusk. Additionally, the Applicant should put up temporary

fencing along Oil Well Road during site clearing. This first stage of disruption is when the largest number of wildlife will be on the move. The Applicant is taking away habitat that is home to much wildlife in the rural lands; it should take what steps it can to lessen the impact the roads will have.

8. Please add SFWMD's November 13 and 15, 2017 emails to the public record for this ERP permit. In the November 17, 2017 RAI, SFWMD asks the Applicant to revise the mitigation, monitoring & Maintenance Plan "as requested in the emails to Passarella and Associates, Inc. on November 13 and 15, 2017." Please put the November 13 and 15, 2017 emails referenced here in the records for ERP Permit No. 160711-8. There is a public process set up for SFWMD's consideration of ERP permit applications—these emails should be part of the public records for this permit.

Sincerely,

Gaylene Vasaturo

cc: Larry Williams, US FWS

2. PLAN DESCRIPTION AND ACTIVITIES COVERED BY PERMIT

2.1 PLAN DESCRIPTION

The Plan provides a long-term (50-year) framework for the preservation and management of approximately 107,000 acres of privately owned land, located within the 151,779± acres of privately owned lands in eastern Collier County. The approximately 107,000 acres protected through the Plan – the lands that will ultimately be dedicated for Preservation/Plan-Wide Activities and Very Low Density Use at Plan completion (described in section 2.2 below and depicted in Figure 2-1) – comprise an ecologically important landscape-scale mosaic of habitats and land uses that support the Florida panther and seven other federally-listed species. These lands also support one candidate species for federal listing, two species that are under review for federal listing, and eight non-federally-listed species that are listed threatened by the State of Florida.[1]

The Plan conserves major regional wildlife habitat linkages, preserving habitat connectivity between the existing public conservation lands to the south of the HCP Area that are part of the panther's core population area, and between the public conservation lands and dispersal corridors to the north and east of the HCP Area. Specifically, these regional linkages connect the Big Cypress National Preserve (BCNP), Florida Panther National Wildlife Refuge (FPNWR), Fakahatchee Strand State Preserve (FSSP) and Picayune Strand State Forest to the Corkscrew Regional Ecosystem Watershed (CREW), Okaloacoochee Slough State Forest (OSSF), Dinner Island Ranch Wildlife Management Area, Spirit of the Wild Wildlife Management Area, and the panther "Dispersal Zone" (USFWS 2002a; Kautz et al. 2006). The conservation and management of these lands will provide important ecological benefits for the Florida panther, the other Covered Species, and other wildlife, including black bear.

Under the Plan, the historic, ongoing, and future land uses within the approximately 107,000 acres of protected lands — primarily agriculture and ranching — will continue and will provide the basis for long-term sustainable activities compatible with conserving the Covered Species. Outside of the protected areas, Covered Activities will include up to 45,000 acres (combined total) of residential/commercial development and earth mining within predefined portions of the 151,779±-acre HCP Area, consistent with the Collier County RLSP. These 45,000 acres include the 5,027-acre Town of Ave Maria, for which Federal permitting and Section 7 consultations have been completed. The acreage of Covered Activities attributable to the ITPs, therefore, is actually less than 40,000 acres (45,000 – 5,027 = 39,973).

The Covered Activities will occur primarily within previously-cleared agricultural areas that currently possess low proportions of native habitats, and exhibit little native habitat connectivity. These previously-cleared or otherwise disturbed areas generally consist of active agricultural fields, fallow fields, pastures, and other areas managed for agricultural production, which may include minor remnants of native vegetation (e.g., small cypress domes; small depressional wetlands). The Plan will thereby provide prospective, landscape-level management of future development on privately owned lands, by consolidating and directing development away from more ecologically valuable areas of

[1] The species covered by the Plan are listed in Tables 1-1, 1-2, and 1-3 (see Chapter 1, Background).

interconnected native habitats and toward previously cleared areas with lower habitat support functions. This integrated landscape approach provides significant ecological benefits over the piecemeal, project-by-project approach that typically occurs without landscape-level coordination and planning of conservation actions among separate, private landowners.

The Plan builds upon the ecological benefits arising from the RLSP (see Chapter 1), augmenting the RLSP by providing greater certainty for long-term planning of economic activities, as well as habitat preservation for the Florida panther and other Covered Species, through extensive preservation of habitats and regional wildlife corridors. The Plan institutes a 50-year integrated framework, and will reduce planning risks and regulatory uncertainties for property owners, regulatory agencies, environmental advocates, and the general public. Expanding upon the potential benefits of the RLSP, the Plan will provide the following benefits that will further long-term protection goals for the Florida panther and other Covered Species:

- Preservation, through conservation easements, of approximately 107,000 acres of land, which include existing regional wildlife corridors ("critical linkages") that provide landscape-scale "ecological greenways" among existing public conservation lands;
- Maintenance of lands designated as Preservation/Plan-Wide Activities and Very Low Density Use, to preserve the ecological value of those lands for Covered Species, through land management practices such as control of invasive plant species;
- Minimization of adverse impacts to Covered Species (e.g., concentrating and directing development to the more heavily developed western portions of the RLSP; directing lights and noise away from habitat);
- Monitoring potential impacts of the Covered Activities to listed species and their habitat to ensure that impacts are accounted for and minimized;
- Enhanced panther habitat mitigation (25% additional mitigation beyond that currently required by USFWS panther habitat functional analyses for activities subject to Federal approval within the panther primary zone); and
- Incorporation and implementation of the Florida Panther Protection Program (FPPP).

The Plan will also provide funding for activities undertaken through the Paul J. Marinelli Florida Panther Protection Fund (the Marinelli Fund, described in section 2.7 below and in Chapter 9). The Marinelli Fund was established through the FPPP to fund panther conservation activities. In 2016, the FPPP expanded the potential scope of the Fund's uses to include funding conservation activities to benefit other Covered Species, in addition to the panther. The Plan will support the Marinelli Fund through (i) contributions to be made on a per-acre basis as Covered Activities are initiated and (ii) transfer fees to be paid on a per-unit basis as homes within the HCP Area are sold and re-sold. Initiatives to benefit the Florida panther and other Covered Species will be undertaken at the discretion of the Fund's Board of Directors, and are expected to include funding for activities such as the following:

- Enhancement and management of wildlife corridors (the "North" and "South" corridors, described in Section 2.2 *infra*, with areas to be enhanced depicted as arrows on Figure 4-9) that facilitate landscape-scale movement of panther and black bear, in addition to other wildlife;
- Construction of panther and other wildlife crossings on roadways within the HCP Area; and
- Land acquisition, enhancement, and management, providing additional habitat for panther and other Covered Species.

Figure 2-1 depicts the extent of the HCP Area within the RLSA, the areas designated for Covered Activities (residential/commercial development and earth mining), Preservation/Plan-Wide Activities, Very Low Density Use, and Base Zoning (each described below). The Plan sets forth the acreage and general location for each of the designated uses (Figure 2-1). Precise locations will be determined in the future.

The Plan designates 97,086 acres as "Preservation/Plan-Wide Activities." The Plan also designates a 50,175-acre area where Covered Activities may occur, but caps the total for Covered Activities at 45,000 acres. Thus, 45,000 acres of Covered Activities may occur anywhere within this 50,175-acre area. The unused balance (5,175 acres) will be placed in the "Preservation/Plan-Wide Activities" designation, bringing the total of that designation to 102,261 acres. The Plan designates 2,087 acres "Very Low Density Use," indicating areas that may be used for such purposes as isolated residences, lodges, and hunting/fishing camps. In the event this property is used for such purposes, any construction would be limited to no more than one structure or dwelling unit per 50 acres. Finally, the 2,431-acre area within the HCP Area that makes up the Half Circle L Ranch is currently identified as "Base Zoning." These lands are located in an RLSP "Open" overlay area, where either development or preservation can occur under RLSP regulations, and where base zoning (1 dwelling unit per 5 acres) under the Collier County Land Development Code applies. The Half Circle L Ranch is for sale on the open market, and the current property owner is a member of the FPPP and an applicant for an ITP. The status of this property will be resolved during the timeframe for USFWS review of the HCP document, drafting of the IA (if applicable), and processing of the ITP applications. Currently, this Base Zoning area is simply identified. If the current or future owner chooses not to develop the area, it will be included in the Plan as land designated for Preservation/Plan-Wide Activities. If the current or future owner develops the area, the development footprint will be included under the 45,000-acre cap for Covered Activities and 2,431 acres that would have otherwise been designated for Covered Activities will be included in the area designated for Preservation/Plan-Wide Activities. Thus, the areas designated for Preservation/Plan-Wide Activities and Very Low Density Use will ultimately total approximately 107,000 acres, and the land designated for Covered Activities will be capped at 45,000 acres.

Figure 2-2 provides a regional view that illustrates how areas within the HCP Area designated for Preservation/Plan-Wide Activities serve to link existing public conservation lands. Table 2-1 summarizes the current land use and land cover within the HCP Area, by land designation category.

Okaloacoochee Slough State Forest

Corkscrew Regional Ecosystem Watershed

Lake Trafford

Immokalee

Immokalee Reservation

Big Cypress National Preserve

Florida Panther National Wildlife Refuge

Fakahatchee Strand State Preserve

Note: The location of Covered Activities was delineated in a Geographic Information System (GIS) to define the location, extent, and general configuration of where these Covered Activities may occur over a 50-year timeframe. The acres depicted in Covered Activities total approximately 50,175 acres. The actual total acreage of Covered Activities is constrained by the ECMSHCP to 45,000 acres within the HCP boundary. The exact configuration of Covered Activities will be refined during the design and permitting processes for each project.

L E G END

- HCP Area
- Preservation/ Plan-Wide Activities
- Covered Activities
- Very Low Density Use (≤ 1DU : 50 Acres)
- Base Zoning (1DU : 5 Acres)
- Prior Federal Permitting Initiated
- Eligible for HCP Inclusion (Non-ECPO Lands)
- Rural Land Stewardship Area Boundary
- Existing Conservation Land
- County and State Roads (not covered in ECMSHCP)

0 1 2 Miles

N

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FIGURE 2-1
HCP Land Designations
November 2017

Stantec Consulting Services Inc.
5801 Pelican Bay Blvd. Suite 300
Naples, FL 34108
tel 239.649.4040
fax 239.263.6449

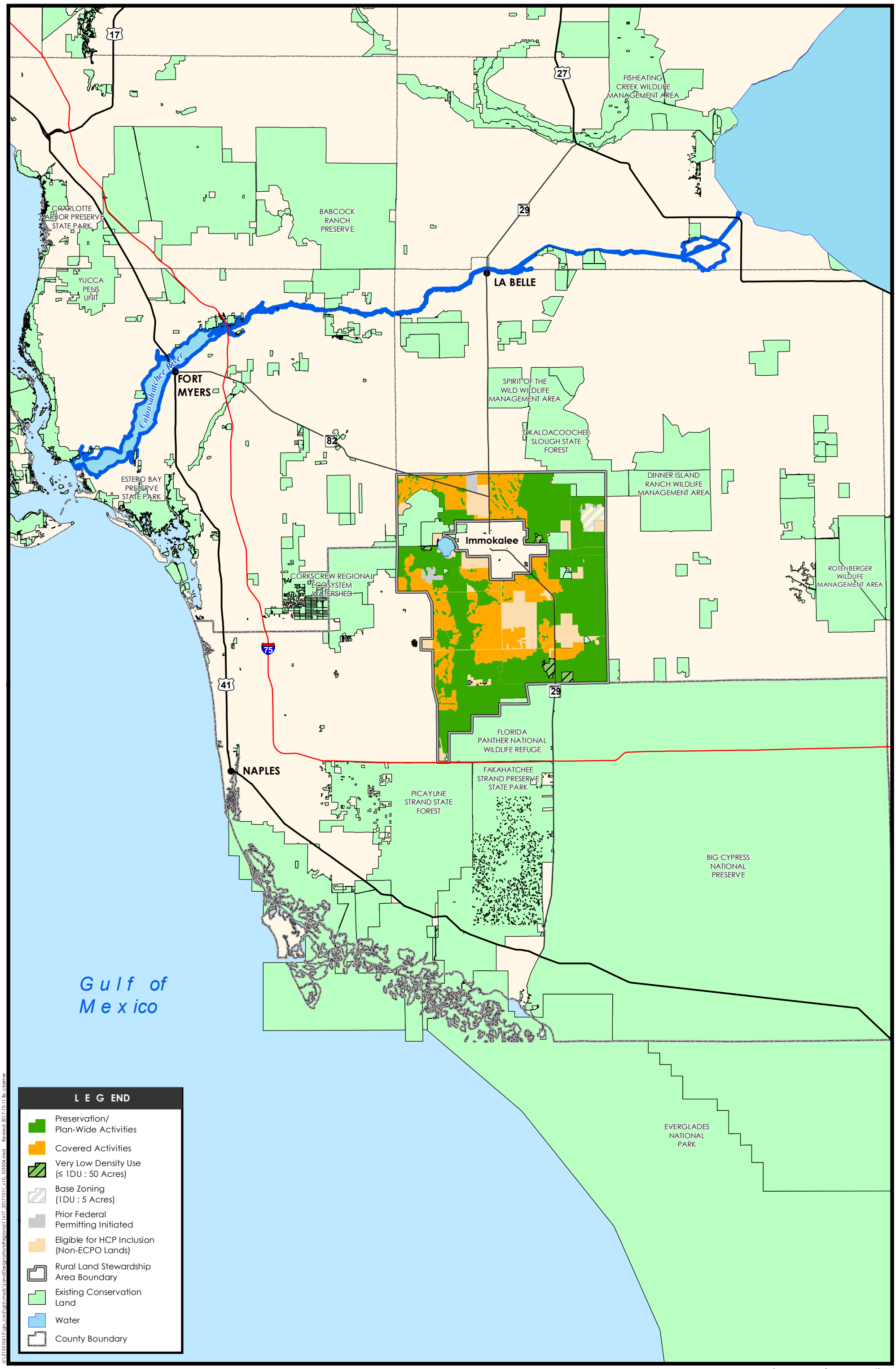

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FIGURE 2-2

HCP Land Designations - Regional View

November 2017

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Table 2-1. Existing land use / land cover within the ECMSHCP, by land designation category.

LAND USE / LAND COVER CATEGORY	COVERED ACTIVITIES (ACRES)[1]	PRESERVATION/ PLAN-WIDE ACTIVITIES (ACRES)[2]	VERY LOW DENSITY USE (ACRES)[3]	BASE ZONING (ACRES)[4]	TOTAL ACRES
Urban / Infrastructure	2,203	164	10	4	**2,381**
Mining / Oil and Gas	0	334	445	0	**779**
Pastures (Improved)	5,126	9,467	446	1,211	**16,250**
Cropland / Pasture	15,795	9,481	0	568	**25,844**
Citrus groves / other groves	19,842	8,287	0	1	**28,130**
Other Agriculture Rural Open Lands	1,730	4,457	117	0	**6,304**
Exotic Plants	377	541	2	0	**920**
Native upland non-forested	428	1,009	138	0	**1,575**
Native upland forested	1,775	9,791	307	16	**11,889**
Native wetland non-forested	2,101	25,672	169	536	**28,478**
Native wetland forested	796	27,717	442	93	**29,048**
Water	0	161	10	0	**171**
TOTALS PER FIGURE 2-1	**50,175**	**97,086**	**2,087**	**2,431**	**151,779**
TOTALS AT PLAN COMPLETION[5]	**45,000**	**102,261**	**2,087**	**TBD**	**151,779**

[1] "Covered Activities" may occur anywhere within the 50,175-acre area shown on Figure 2-1, but will be capped at 45,000 acres total. The balance of acreage between Figure 2-1 and the 45,000-acre cap (5,175 acres) eventually will be placed into "Preservation/Plan-Wide Activities."

[2] "Preservation/Plan-Wide Activities" (102,261 acres) refers to land areas preserved at Plan completion.

[3] "Very Low Density Use" refers to isolated rural structures (lodges, camps), and the acreage contributes to habitat support for Covered Species.

[4] "Base Zoning" was retained on the Half Circle L Ranch, and refers to a maximum of 1 dwelling unit per 5 acres. See section 2.5 of text.

[5] "Totals at Plan Completion" reflect the 45,000-acre cap for "Covered Activities," with the balance of land dedicated to the other land designations. The "TBD" (To Be Determined) notation reflects the fact that the Half Circle L Ranch is currently for sale, and its current zoning is retained until the current or new property owner places the land into a specific designation under the ECMSHCP.

The primary elements of the Plan are outlined in sections 2.2 and 2.3 below. The first two elements – Preservation/Plan-Wide Activities and Very Low Density Use – currently occur and/or will occur within the approximately 107,000 acres slated for permanent protection. The Covered Activities (residential/commercial development and earth mining activities), will occur within the 45,000 acres identified for Covered Activities described in section 2.3 ("Activities Covered By Incidental Take Permit").

2.2 PRESERVATION/PLAN-WIDE ACTIVITIES AND VERY LOW DENSITY USE

Activities that may occur in the lands designated for Preservation/Plan-Wide Activities include the types of agricultural, ranching, and other rural activities that have occurred throughout the HCP Area historically, and are expected to continue into the future. These predominantly agricultural activities preserve the current extent and function of the landscape-scale mosaic of habitats and land uses in this area that support the Covered Species, and are consistent with the protection of lands under the Plan.

These include activities such as the following:

- Crop Cultivation;
- Ranching/Livestock Operations;
- Forestry and Silviculture;
- Recreation;
- Exotic and Nuisance Species Control; and
- Oil and Gas Exploration and Production.

Many of these activities have generally occurred for a century or more in eastern Collier County, and in their present form are compatible with use of the lands designated for Preservation/Plan-Wide Activities and Very Low Density Use by the Covered Species. Some historic land use practices, such as the establishment and maintenance of pastures, directly benefit one or more Covered Species (e.g., northern crested caracara; Florida burrowing owl; Florida sandhill crane). In addition, existing land management practices may benefit the Covered Species. For example, prescribed burning benefits the Florida panther, gopher tortoise, and Eastern indigo snake; water retention area management may benefit wood stork and snail kite; and exotic species control benefits the Florida panther and many of the other Covered Species). Allowing these activities to continue also provides the opportunity for long-term agricultural use of lands, environmentally beneficial land management, and species conservation within a contiguous regional landscape.

Active oil and gas production has occurred within the HCP Area since the 1940s, and remains ongoing. Long-term radiotelemetry data and GPS data demonstrate that oil and gas production is compatible with utilization of the surrounding habitat by the Florida panther. No adverse effects of oil and/or gas exploration or production have been documented for the Covered Species within the HCP Area, and no incidental take of Covered Species is expected based on these activities. The oil and gas activities

conducted in the HCP Area are subject to regulation and permitting by the State of Florida (FDEP) and Federal agencies. Under the Plan, oil and gas exploration and production are activities that may occur anywhere within the HCP Area, as there are inherent uncertainties related to locating productive oil and gas reserves.

The permittees will also have the option of using the 2,087-acre area designated for Very Low Density Use for such purposes as isolated residences, lodges, and hunting/fishing camps (see Figure 2-1, Very Low Density Use). Any construction in this area would be limited to no more than one structure or dwelling unit per 50 acres. The low density of any development on these lands would be compatible with the panther's continued use of these lands.

The Plan will designate the vast majority (approximately 107,000 acres, or 70%) of the HCP Area as Preservation/Plan-Wide Activities and Very Low Density Use, which represent over 92 percent of the native habitats found within the HCP Area. This will ensure that the approximately 107,000 acres of contiguous lands will continue to support the needs of the Florida panther and other Covered Species through preservation, management, and ecological restoration (to be initiated through the Marinelli Fund where feasible). These lands include large blocks of native habitat where panthers have been documented extensively (Maehr 1990; USFWS 2002a; FPPP Technical Review Team [FPPPTRT] 2009).

The Plan includes the following activities that are collectively designed to meet biological goals and objectives for the Covered Species within the HCP Area:

- **Extensive, Contiguous Land Preservation.** The primary ecological benefit of the Plan is the designation of approximately 107,000 acres of contiguous lands for Preservation/Plan-Wide Activities and Very Low Density Use by Plan completion. These vast interconnected lands support the Florida panther as the Plan's major "focal species" (Beier 2010), as well as the other Covered Species. The approximately 107,000 acres of contiguous lands contain an ecologically valuable landscape-scale mosaic of native habitats and agricultural land uses that are utilized by the Florida panther and the other Covered Species. The preservation of these lands, which include two existing regional wildlife corridors – the Camp Keais Strand and Okaloacoochee Slough flowways – has been a goal of conservationists dating back several decades, and a goal identified specifically with respect to the panther since the 1980s (Belden et al. 1988; Maehr 1990; Logan et al. 1993). The Plan will prevent impacts that would have resulted from more intensive uses or development of the land designated for Preservation/Plan-Wide Activities and Very Low Density Use; preserve large, interconnected blocks of panther habitat; and minimize potential impacts of future development by concentrating and directing that development toward existing development and previously cleared areas in the western portions of the HCP Area, in the area designated for Covered Activities.

  As residential/commercial and earth-mining activities are approved and implemented in the area designated for Covered Activities, commensurate acreages within the lands designated for Preservation/Plan-Wide Activities and Very Low Density Use will be placed under conservation easements to compensate for permitted impacts. A summary of the current acreage of various

types of land cover and land use within the approximately 107,000-acre area that will be designated for Preservation/Plan-Wide Activities and Very Low Density Use is provided in Table 3-1, and depicted in Figure 3-4 (see Chapter 3, Environmental Setting). These phased land preservation activities will be augmented by the land management, mitigation, and monitoring activities described below, which will preserve and enhance the ecological function of these lands.

- **Management of Preserved Lands.** The lands designated for Preservation/Plan-Wide Activities and Very Low Density Use will be managed to preserve their existing ecological functions. Many of the activities that already occur within the lands designated for Preservation/Plan-Wide Activities, such as exotic and nuisance species control and pasture management, will benefit some or all of the Covered Species.

  The management activities that may occur within areas designated for Preservation/Plan-Wide Activities and Very Low Density Use in native habitat areas include, but are not limited to: exotic and nuisance species control; prescribed burning; mechanical control of excessive forest understory/fuel loads; tree thinning to improve native forest productivity; mechanical, hydrologic, and/or chemical control of vegetation to improve community structure and/or plant species diversity; construction and maintenance of surface water management structures for preservation or enhancement of existing/natural hydrologic function; scouting and monitoring of lands on foot, horseback, or by vehicle.

  The management activities that may occur within areas designated for Preservation/Plan-Wide Activities and Very Low Density Use in areas with non-native land cover types (predominantly agricultural fields and pastures) include a subset of the activities as listed above: crop cultivation; ranching/livestock operations; forestry and silvicultural operations; and exotic and nuisance species control. Collectively, these predominantly agricultural management activities will preserve the ecological functions of the area by maintaining healthy agro-ecosystems, controlling invasive species, and providing varying degrees of direct habitat support to some or all of the Covered Species.

- **Mitigation and Monitoring.** The designation of these lands for Preservation/Plan-Wide Activities and Very Low Density Use provides an effective framework for the implementation of systematic (rather than *ad-hoc*) mitigation and monitoring activities within the HCP Area. The Plan will restrict residential/commercial development activities and earth mining (Section 2.3) to areas designated for Covered Activities, which are largely previously cleared or otherwise disturbed areas with little native panther habitat and little habitat connectivity. Potential impacts to the Florida panther and the other Covered Species will be covered under ITPs issued to the applicants, which will provide for appropriate levels of mitigation and subsequent monitoring. Consistent with the RLSP, and as specified by USFWS under the ITPs, mitigation will be provided by placing conservation easements on lands designated for Preservation/Plan-Wide Activities as development in the area designated for Covered Activities occurs. Monitoring will be conducted to verify mitigation compliance.

Additional mitigation activities may include: wildlife mitigation activities designed to benefit one or more of the Covered Species, in coordination with USFWS and/or FWC; and wetland mitigation activities required by Federal and/or State resource agencies, including the U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (USEPA), South Florida Water Management District (SFWMD), and Florida Department of Environmental Protection (FDEP).

Wildlife mitigation activities may include habitat enhancement (invasive species control, prescribed burning, supplemental planting, etc.); hydrologic enhancement (increasing/decreasing seasonal high water to influence community composition); surface water management for species-specific requirements (e.g., northern caracara, wood stork, Everglade snail kite); and wetland creation, restoration, and/or enhancement.

- **Preservation of Existing Panther Movement Corridors.** Several planning and conservation efforts have identified the potential benefit of creating and/or enhancing wildlife movement corridors within Southwest Florida and eastern Collier County (Collier County 2009; FPPPTRT 2009; Small et al. 2012). As part of a comprehensive mitigation program, the Plan sets aside lands designated for Preservation/Plan-Wide Activities and Very Low Density Use that will allow for preservation of these corridors, which link large blocks of preserved habitat within and beyond the HCP Area. As depicted schematically in Small et al. (2012), setting aside these lands will allow for the enhancement of two corridors within the HCP Area: one corridor linking the Corkscrew Marsh system with the Okaloacoochee Slough system ("North" corridor); and another corridor linking habitats just east of SR 29 to the middle portions of the Okaloacoochee Slough ("South" corridor) (See Chapter 4, Florida Panther, and Figure 4-9). The Marinelli Fund could be used to fund activities to enhance the utility of these corridors through the planting of native vegetation used as cover by the panther and other Covered Species. Additionally, where these panther movement corridors intersect roadways, the Marinelli Fund could be used to fund activities to arrange for construction of fenced wildlife crossings to ensure safe passage of panthers and other wildlife through the landscape.

2.3 ACTIVITIES COVERED BY INCIDENTAL TAKE PERMIT

The Plan proposes two general categories of Covered Activities that will be conducted by or under the direction or control of the applicants: (i) residential/commercial development and (ii) earth mining. Upon full implementation of the Plan, including full build-out of the 45,000 acres of land designated for Covered Activities, the areas that will be designated for Preservation/Plan-Wide Activities and Very Low Density Use will encompass approximately 107,000 acres within the HCP Area, with the land permanently protected under conservation easements. The land utilized for Covered Activities will be capped at a maximum combined total of 45,000 acres, but as indicated above, the maximum combined total attributable to the ITPs will be less than 40,000 acres due to the inclusion of the Town of Ave Maria.

The applicants are seeking authorization for incidental take of the Covered Species resulting from Covered Activities conducted by or on behalf of the applicants, their lessees, their contractors, and/or

holders of Certificates of Inclusion,[2] that may occur within the pre-defined "Covered Activities" land designation areas within the HCP Area (Figure 2-1). The applicants request that ITPs be issued to the Plan applicants at the conclusion of Plan development. Any other activities that may potentially affect federally-listed species are not covered by the Plan.[3]

As shown in Figures 2-1 and 2-2, and summarized in Table 2-1, the Plan will accommodate up to a maximum of 45,000 acres of residential/commercial development and earth mining, in areas largely already cleared for agriculture that have low qualities of native habitat and little or no native habitat connectivity. The Town of Ave Maria (5,027 acres) will be included in this 45,000-acre cap.[4] The Covered Activities will be phased over the 50-year duration of the ITPs. Prior to the conversion of a given tract within the "Covered Activities" areas designated for development and/or earth mining activities (Figure 2-1), pre-existing activities (Section 2.2) can continue to occur. At any given time during the 50-year ITP duration, the total area designated for development will be a mix of agricultural lands, earth mining, and residential/commercial development, but at no time will the combined acreage of residential/commercial development and earth mining within the area designated for Covered Activities exceed 45,000 acres. The residential/commercial development and earth mining activities included in the Plan, for which incidental take authorization is requested, are described in the following bulleted paragraphs.

- **Residential/Commercial Development.** These activities include the planning, design, permitting, and construction of mixed-use residential communities and associated commercial facilities, along with infrastructure internal to the development footprint necessary to support these activities. Land uses within these developments may include, but are not limited to: single-family housing; multi-unit housing; public and private institutional facilities; commercial space; office space; retail establishments; surface water management; internal roadways; utilities; open space (e.g., parks, landscaping buffers, lakes); and other elements typical of mixed-use developments. Wherever feasible, developments will employ environmentally friendly planning

[2] See section 2.4, below.

[3] For example, the ITPs will not authorize or control incidental take resulting from activities of third parties (*e.g.*, actions that are not conducted by or on behalf of the applicants), such as panther-vehicle collisions on external roadways. Panther-vehicle collisions are not expected during construction and maintenance of roads internal to development areas permitted under the ITPs, based on factors such as the low speed of travel on these roads and relatively lower likelihood of panthers crossing roads, and therefore any such collisions, and any other panther strikes on these internal roads will not be covered. In addition, the ITPs will not cover panther strikes on any other roadways within the HCP Area (whether public or private). For example, roadway improvements conducted as part of county and/or State programs are not covered by the Plan, including pursuant to any current or future Long-Range Transportation Plans (LRTPs) developed by the Collier County Metropolitan Planning Organization (MPO).

[4] As described in Chapter 1, there are two parcels of land located within the RLSA (and the outer boundaries of the HCP Area) – the Hogan Island Quarry and the Immokalee Sand Mine – that are owned by ECPO members but are not included in the HCP Area or as Covered Activities because the Federal permitting process for each, including Section 7 consultations, is either already complete or is expected to be complete by the time the ITPs are issued. These two parcels are accounted for in the overall configuration and planning for wildlife corridors and other ecologically beneficial features of the Plan.

and designs, such as clustering, low-impact development, water reuse techniques, and greenspace buffers. These activities are subject to local, State, and Federal regulatory programs related to the establishment and operation of residential/commercial developments.

- **Earth Mining.** These activities include the planning, design, permitting, construction, operation, and decommissioning of surface earth mines. Within the area designated for Covered Activities, the earth materials extracted will be soil, sand, limestone, and similar earth materials used for construction fill, roadway fill, landscaping, and similar uses. Earth mines may occur as a prelude to future land uses, such as development, or may occur as an end-use. Permitting and regulation of earth mining activities is administered by USACE, FDEP, and Collier County.

In addition, lands designated as Plan-Wide/Preservation and Very Low Density Use will require periodic land management in perpetuity to maintain or improve habitat functions; maintain agriculture operations; maintain drainage infrastructure; control exotic vegetation; and control pests and diseases. Under the Plan, these activities include land management techniques such as prescribed burning; mechanical control of groundcover (e.g., roller chopping, brush-hogging, mowing); ditch and canal maintenance; mechanical and/or chemical control of exotic vegetation; soil tillage; and similar activities that maintain or improve land quality. The applicants also seek take coverage for these activities.

2.4 CERTIFICATES OF INCLUSION HOLDERS AND LESSEES

The permit applicants seek incidental take authorization for the Covered Activities, up to a maximum footprint of 45,000 acres, which will occur within the 50,175-acre area designated for Covered Activities on Figure 2-1. This incidental take authorization will extend to the applicants' subsidiaries, employees, lessees, and contractors, and other parties carrying out otherwise lawful activities conducted under the direction of the applicants and in compliance with the terms of the ITPs.

Although the applicants (ECPO members) own the entirety of the 151,779± acres within the HCP Area, non-ECPO private property owners hold over 20,000 acres of land (as calculated from the Collier County Property Appraiser database) within the RLSP area where the Plan is set. Figure 2-1 depicts these non-ECPO private property holdings as "Eligible for HCP Inclusion" within RLSP boundary. Some of these non-ECPO lands possess conservation value that could augment the conservation benefits provided by the Plan, should the current or future non-ECPO property owners choose to add some or all of their land to the Plan.

Given the 50-year duration of the ITPs, the intent of this Plan element is to provide additional flexibility in implementing the Plan, while adhering to the 45,000-acre limit for Covered Activities and without changing the areas within which the Covered Activities may occur. The goal is to recognize the possibility that future land transfers, purchases of new conservation lands, conservation incentives, or other mechanisms may provide new opportunities for enhancing the Plan, especially for the Florida panther.

Programmatic HCPs, such as those implemented by counties or states, often include a mechanism for non-participating property owners to participate in an HCP after issuance of the ITP. The reason for doing this is to facilitate the assembly of a wider and/or more complete conservation area and

comprehensively address activities within the area to the extent practicable. In such cases, a "Certificate of Inclusion" may be issued, which conveys the incidental take authorization to the new participant, while maintaining the take limitations and conservation requirements of the ITP.

At least one private-sector HCP – the Tehachapi Uplands Multiple Species Habitat Conservation Plan – has utilized this mechanism. The permit applicants recognize the potential benefits of such an approach for augmenting the Plan, and also for providing flexibility in responding to changed or unforeseen circumstances. The use of "Certificates of Inclusion" would not result in any increased take, reduce the conservation benefits specified in the ITP, or result in changes to the extent or location of Covered Activities, but would provide a means for flexibly enhancing the Plan.

2.5 BASE ZONING AREA

Figure 2-1 depicts a "Base Zoning" area on 2,431 acres of the Half Circle L Ranch, east of Immokalee. The 2,431 acres represents an RLSP "Open" overlay area, where either development or preservation could occur under RLSP regulations, and where base zoning (1 dwelling unit per 5 acres) under the Collier County Land Development Code applies. As of this writing, the Half Circle L Ranch is for sale on the open market. Although the current property owner is a member of the FPPP and an applicant for an ITP, it is not known whether the property will be sold before the HCP/ITP process is concluded, or what land designation would be applied to the 2,431 acres in the event of a sale.

The status of this property is expected to be resolved during the timeframe for USFWS review of the HCP document, completion of the NEPA process, and processing of the ITP applications. For the purposes of this draft of the HCP document, the Base Zoning area is simply identified, and counts neither as land designated for Covered Activities, or for Preservation/Plan-Wide Activities or Very Low Density Use. Should the current or future owner choose not to develop the area, it will be included in the Plan as land designated for Preservation/Plan-Wide Activities. Should the current or future owner develop the area at base zoning or higher densities, the development footprint will be included under the 45,000-acre cap for Covered Activities, and 2,431 acres that would have otherwise been designated for Covered Activities will be included in the area designated for Preservation/Plan-Wide Activities.

2.6 OTHER TAKE AVOIDANCE AND MINIMIZATION MEASURES

The primary avoidance and minimization measure for potential impacts to the Florida panther and other Covered Species is the designation of approximately 107,000 acres of contiguous lands for Preservation/Plan-Wide Activities and Very Low Density Use (Figure 2-1). Within the 45,000 acres proposed for Covered Activities, multiple avoidance and minimization measures will be implemented at project-level scales as part of project planning, design, permitting, and construction. The Plan's direction of development toward less ecologically valuable, previously cleared areas, and preservation of more ecologically valuable contiguous areas of land, serves as a significant avoidance and minimization strategy. Other project-level avoidance and minimization measures for the Covered Species are described in Chapter 4 (Florida Panther) and Chapter 7 (Conservation Plan for Other Covered Species).

2.7 OTHER PLAN ELEMENTS

A major benefit of the Plan is the opportunity for coordination with the FPPP (see Chapters 1 and 9). The FPPP is a collaborative effort among the applicants and several major environmental groups to assist in the conservation and recovery of the Florida panther. A central component of the FPPP is the establishment of the Marinelli Fund, which will be governed by its own board of directors, and will be funded by the Plan.

The Fund will be underwritten by (i) contributions to be made on a per-acre basis as Covered Activities are initiated and (ii) transfer fees to be paid on a per-unit basis as homes within the HCP Area are sold and re-sold (see Chapter 9 for more detail). In addition to possible enhancement of the North and South Corridors (described above), the Marinelli Fund may be used for a variety of conservation activities that assist with panther recovery, such as design and construction of wildlife underpasses under and fencing along roadways to prevent wildlife-vehicle collisions; panther habitat acquisition, management, restoration and/or enhancement; and other activities that are consistent with the FPPP goals; the Fund may also be used to benefit the other Covered Species (Chapter 9).

The Plan also identifies the potential for changed and unforeseen circumstances (see Chapter 8). Examples of reasonably foreseeable changed circumstances include the potential impacts of hurricanes; wildfires; pests, and diseases affecting Covered Species and/or their habitats; effects of climate change; and new listings of species not covered by the Plan. The Plan also incorporates measures for responding to changed circumstances that may impact one or more Plan elements. Under USFWS's "No Surprises" rule, permittees are not required to provide additional resources or funds to address unforeseen circumstances.

The Plan identifies alternatives to the issuance of the ITPs as proposed under the Plan, and explains why the other alternatives were not selected (see Chapter 10, Alternatives).

The detailed provisions for implementing this Plan will be incorporated into the permits or IA. The IA (if applicable) and/or the permits will specify the mutual obligations of the applicants and USFWS for executing the Plan elements, and for carrying out the Plan in accordance with the terms of the ITPs and Federal regulations.

Okaloacoochee Slough
State Forest

Corkscrew Regional
Ecosystem Watershed

Lake
Trafford

Florida Panther National
Wildlife Refuge

Big Cypress
National Preserve

Fakahatchee Strand
State Preserve

850
82
846
858
29

L E G END

- Rural Land Stewardship Area Boundary
- Developed Land
- Conservation Land
- County and State Roads (not covered in ECMSHCP)

bing

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FIGURE 1-3
Current RLSP: All Open Land Developed
November 2017

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Revised Chapters 1 & 2 Comments
Ken McDonald
11/30/2017

1) Expand Section 1.3 to include contact information for representatives of each applicant. If ECPO will continue to represent the applicants throughout the lifespan of the HCP, designate them as such and additionally provide relevant contact information for the ECPO designated representative in this section. Ensure someone picking up this HCP knows exactly how to contact the individual(s) participating in the HCP and administering it. Consider moving this section to the front of Chapter 1.
2) Move discussion of Covered Species conservation and recovery histories from Chapter 1 to the appropriate species chapters.
3) After the applicants and their representatives have been identified, introduce the activities and species for which an ITP is sought. Call this Section "Purpose of the HCP."
    a. Bring the description of Covered Activities from Chapter 2 to Chapter 1
        i) Where applicants retain a governance role in any future commercial developments, residential developments, or earth mining activities add "facilities/properties management" to the list of Covered Activities.
        ii) Remember to include conservation actions in the list of Covered Activities (example, those being implemented for Rural Lands West). *Note: Very Low Density Use" might qualify as a minimization measure ONLY IF it is being implemented as an alternative to more intense development that would otherwise occur. If more intensive development is not being considered for "Very Low Density Use" locations, these need to be described as a Covered Activity.
        iii) Describe the manner of takings for each Covered Activity (e.g. "harm & harassment" or any other manner of taking likely to occur relative to each covered activity).
        iv) Describe features common to activities that makes them different than what would be pursued without an HCP (a change in housing density from base zoning, trip-capture within communities, reduction of water consumption relative to present etc).
        v) Summarize how the aggregate of Covered Activities will impact Covered Species without mitigation.
    b. Describe the FULL Regulatory Environment in which these impacts will occur (local, state, and federal). Provide a table listing all laws and regulations (local, state, and federal) applicants must adhere to in order to engage in Covered Activities. Provide a separate table listing all of the permits required for applicants to engage in Covered Activities.
    c. Identify which of these laws and regulations are satisfied by compilation of the HCP and implementation of the measures contained within it.
    d. Broadly describe the desired end state for Covered Species (e.g. "no-net loss", "net gain" etc).
4) See Figure 9.1e on page 9-5 of the HCP handbook for guidance on how to describe biological goals for the HCP, and break down biological goals and measures hierarchically.
    a. Chapter 1 describes the "Purpose of the HCP." Some of the purpose is described in Chapter 1, but the presentation of it gives one the impression it's a sales pitch rather than a description (There's some text dedicated to Chapter 2 describing "Regional or Landscape Goals", "Vision for HCP Program", and "HCP Goals", but these should be more explicitly identified in the text- consider naming chapters after these and putting in the appropriate information). Chapters describing impacts to species should have sections titled "HCP Objectives", "HCP Measures", and "Monitoring Goals" for each species.

Florida Department of Transportation
Wildlife Crossing Guidelines
2016

A wildlife crossing is a road-related structure that provides wildlife an option to cross under roadways. These crossings have the potential to reduce motor vehicle collisions with wildlife, consequently reducing the likelihood of injuries and mortalities to humans and wildlife as well as reducing the potential for damage to motor vehicles. These guidelines have been developed for use by the Florida Department of Transportation (FDOT) to evaluate the **appropriateness** of including wildlife crossings (upland or wetland) and associated features (herein referred to collectively as "wildlife crossing features") for proposed projects on the State Highway System (SHS) or as possible stand-alone retrofit projects on the SHS when warranted. These guidelines have been developed in coordination with the United States Fish and Wildlife Service (USFWS) and Florida Fish and Wildlife Conservation Commission (FWC), which agencies have regulatory authority and are the recognized experts for wildlife species nationwide and within the State of Florida, respectively.

For these guidelines the term "wildlife crossing feature(s)" may include, but is not limited to new or modified structures, such as bridges, bridges with shelves, specially designed culverts, enlarged culverts or drainage culverts and/or exclusionary devices such as fencing, walls or other barriers, or some combination of these features. Further, as used in these guidelines, the term "wildlife" refers to listed, protected or otherwise regulated species that the USFWS and/or FWC have jurisdiction over.

In cases where a FDOT District has an off-SHS project, the District will coordinate with the State Environmental Management Office regarding possible inclusion of any wildlife crossing features. Wildlife crossing feature locations should be identified as early as possible in the project planning and development processes, and prior to project design. These guidelines also establish **criteria** that must be considered during design of wildlife crossing features.

In developing projects, the FDOT District Offices, in coordination with USFWS and/or FWC, will determine if a wildlife crossing feature is appropriate. As part of the planning and project development processes, the FDOT also considers input from other stakeholders, including local governments, non-governmental organizations and the public. Although opportunities for input exist throughout the process, the FDOT has two prescribed phases where early coordination and input are solicited during project planning and development. These two phases are:

1) Efficient Transportation Decision Making (ETDM) is the process where projects are screened and wildlife agency and other stakeholder input is solicited to provide early scoping information regarding potential effects and resources of concern in the project area. During the screening event(s), wildlife agencies and stakeholders have the opportunity to propose wildlife crossing features as well as opportunities for wildlife impact minimization and, if necessary, potential mitigation strategies.
2) Project Development and Environment (PD&E) is the process by which the FDOT develops the project alternative(s) and analyzes project impacts. It is important for wildlife agencies and stakeholders to be involved during this phase since this is when preliminary

design, constructability issues and financial and wildlife agency/stakeholder considerations are balanced to develop the preferred alternative and conceptual design. It is also the phase where commitments are initially considered.

In evaluating a project for a potential wildlife crossing feature, the following guidelines should be observed:

For a proposed FDOT project on the SHS: Wildlife crossing features typically will only be considered when the project is a new alignment, capacity improvement, roadway reconstruction or bridge replacement. However, if a FDOT District finds that a wildlife crossing feature may be beneficial on a different type of project than listed above, or if the project is not on the SHS, the FDOT District can review the project/site specific circumstances with the State Environmental Management Office to consider inclusion of such feature in the project.

For a requested retrofit project on the SHS, FDOT Districts should require entities requesting a wildlife crossing feature to provide scientifically based documentation or studies to substantiate their requests. Funding for acceptable, substantiated requests could result from financial partnerships with requesting entities. In support of these efforts, requesting entities can work with other stakeholders to facilitate funding, to meet coordination requirements with property owners /other stakeholders, and identify right of way and maintenance requirements. Retrofit projects may require the requesting entity to agree to maintain and/or fund the maintenance of the wildlife crossing feature. It is important to advise the requesting entity that appropriate agreements (i.e., Local Funds Agreements/Maintenance Agreements) would need to be executed consistent with FDOT requirements and related Work Program approvals would be needed in order to design and construct a retrofit project.

The following list should be used as a guide in evaluating whether a wildlife crossing feature is appropriate. The list below is not exhaustive and should not be considered a checklist, but simply a guide for coordination, consultation and decision making:

- Has a FDOT District received a documented, science-based need for a wildlife crossing feature that is supported by USFWS and/or FWC and regulatory agencies, as applicable?
- Are there wildlife species documented within the project area and is the project area used by these species?
- Are there documented road kills of wildlife species with high conservation value (as determined by the USFWS/FWC) or within a known area where traversing the roadway creates a potential hazard to motorists and/or wildlife species?
- Is the project within the documented range of the Florida panther and/or Florida black bear?
- Does the project cross or fragment designated critical habitat or a documented landscape level habitat linkage, ecological greenway, or Florida Forever project area where there is science-based evidence that the location is used by wildlife species? This may be especially important when a median barrier is proposed that could create entrapment of the species within the roadway.

- Are public conservation lands or lands under a perpetual conservation or agricultural easement needed to achieve successful use of a wildlife crossing feature? If so, are public conservation lands or lands under a perpetual conservation or agricultural easement present in sufficient amounts on both sides of the road (adjoining and contiguous), where a wildlife crossing feature may be located, including the ability to provide adequate fencing (where appropriate) to guide wildlife species for a sufficient distance to achieve successful use of the feature? Generally, these conditions would apply to large, new or retrofit wildlife crossing features that target wildlife with a large home range as compared to smaller wildlife crossing features where a shelf is being added to an existing structure. These conditions should be discussed and agreed upon with USFWS or FWC during the planning phase. If one of these conditions is required to achieve successful use and does not exist during the planning phase, but is reasonably certain to exist no later than the **beginning** of the 60% project design phase, the wildlife crossing feature can be considered up to that point in project development. Should the conditions agreed upon in the planning phase by the FDOT and agencies not exist at the beginning of the 60% design phase, the FDOT will not move forward with the inclusion of the wildlife crossing feature in the project. In cases where a project achieves 60% design but is not funded for right of way acquisition or construction and is put on "hold", the FDOT may consider moving forward with the inclusion of the wildlife crossing feature if the conditions have been satisfied at the time the project design is resumed if the schedule and budget allow.
- Are the future land use and development patterns compatible with wildlife species needs or ecosystem viability?
- Does the project involve locations of critical conservation need as determined by USFWS or FWC?

Science-based data collected or provided to address the above items should serve as a guide to determine whether a wildlife crossing feature is appropriate.

In addition, this data should support the selection of an appropriate wildlife crossing feature design that would promote wildlife species movement or ecosystem viability. The District should consult with USFWS or FWC when alternative measures and technology are considered.

In cases where science-based data does not exist to adequately support a proposed crossing, it may be necessary to perform studies or additional research to obtain the data. Generally, the party requesting the wildlife crossing feature is expected to perform the study or conduct the research needed. The USFWS and/or FWC should have an active role in the review and development of relevant studies and in the evaluation of the results, including meeting with the appropriate FDOT District with regard to the final recommendations. This effort needs to be done in a timely manner so as not to slow the progress of the project development process.

The specific design (type, size, and location) of the wildlife crossing feature should be determined by the FDOT District through coordination with the USFWS and/or FWC and other regulatory agencies as appropriate. The FDOT Districts may also consider input from other interested stakeholders.

A wildlife crossing feature design must take the following points into consideration:

- The wildlife crossing feature cannot compromise any state or federal highway safety criteria.
- The wildlife crossing feature cannot compromise FDOT design requirements. Should roadway or bridge design variations or exceptions be needed for the proposed wildlife crossing feature, proper and timely review by the FDOT Districts and Central Office (as applicable) would be required. If not approved, the wildlife crossing feature would require redesign and further coordination with the agencies to determine whether it is feasible to provide the feature.
- The wildlife crossing feature cannot restrict legal access to adjacent property owners without written approval from said property owners.
- The wildlife crossing feature cannot negatively impact adjacent properties (e.g., provide access for people and/or wildlife species to private properties where none presently exist).
- The wildlife crossing feature cannot negatively impact existing drainage patterns or flood off-site properties.
- The placement of wildlife crossing features is usually associated with wildlife mortality hotspots; however, the ultimate placement may be based on the most cost efficient and biologically effective design that meets the needs identified by USFWS and/or FWC and regulatory agencies as appropriate.
- Upland and wetland habitat impacts should be avoided and minimized to the extent practicable by proper design.
- The lighting at wildlife crossing features should be minimized to the greatest extent practical.
- The wildlife crossing feature must be accessible for proper maintenance to ensure the feature remains viable.
- When various types of wildlife crossing features could be applied to a location, a cost-benefit analysis of the feature should be considered. The costs of each wildlife crossing feature should be compared to the anticipated benefit of reduced risks of collisions for both motorists and wildlife species. Costs for the wildlife crossing feature(s) should include design, permitting, right-of-way, construction and long term maintenance (i.e., fencing, gates and maintaining wildlife access to the wildlife crossing feature when applicable). Costs for collision reductions should be coordinated with the Traffic Operations Office and be based on the anticipated number of reduced collisions using the data supporting the need for the wildlife crossing feature.
- Should post-construction monitoring be requested by a regulatory agency, USFWS and/or FWC should have an active role in the review and development of the monitoring plan. Any post-construction monitoring should be for data collection and information only and will only be conducted for a limited period of time.

1. INTRODUCTION AND BACKGROUND

1.1 OVERVIEW/BACKGROUND

Southwest Florida encompasses a variety of urban, agricultural, and natural landscapes that support, among other things, residential, commercial, and public activities, food production, recreation, natural ecosystem functions, and wildlife. Collier County, located west of the Everglades and south of the Caloosahatchee River (Figure 1-1), has experienced rapid human population growth over the past several decades, while simultaneously witnessing the dedication of vast expanses of natural areas to conservation as State and Federal lands. Over two-thirds of Collier County's land area is currently in conservation status, with over 877,000 of the county's 1,300,000 acres protected (FNAI 2014a).

The Federal preserves within Collier County include the Big Cypress National Preserve (BCNP), the Florida Panther National Wildlife Refuge (FPNWR), the Ten Thousand Islands National Wildlife Refuge (TTINWR), and the western coastal portions of Everglades National Park (ENP). State conservation lands within the County include the Fakahatchee Strand State Preserve (FSSP), the Picayune Strand State Forest (PSSF), the Okaloacoochee Slough State Forest (OSSF), and extensive portions of the Corkscrew Regional Ecosystem Watershed (CREW). In addition, the National Audubon Society maintains approximately 13,000 acres of conservation lands in Collier County, comprised of the Corkscrew Swamp Sanctuary and nearby lands.

These Federal and State preserves were generally established to protect vast tracts of Southwest Florida's diverse natural ecosystems, which harbor a wide variety of plants and wildlife, including many species listed as endangered or threatened under the Endangered Species Act, 16 U.S.C. §§ 1531 *et seq*. (ESA or Act), protected by the State of Florida, or both. Among these listed species, the Florida panther (*Puma concolor coryi*) represents a major "focal species," meaning that conservation activities directed toward conserving the panther also promote multiple aspects of regional biodiversity conservation (Lambeck 1997; Noss 2007). The public conservation lands within Collier County protect many species that have limited localized distributions, home ranges, and/or dispersal distances (e.g., red-cockaded woodpeckers; rare orchids; Big Cypress fox squirrels), but the Florida panther utilizes habitats and establishes home ranges on a landscape scale that extends well beyond the boundaries of the existing public conservation lands.

The role of private lands for sustaining the Florida panther has been addressed repeatedly in the scientific literature for over 25 years (e.g., Belden et al. 1988; Maehr 1990; Logan et al. 1993; Main et al. 1999; Beier 2009). Beier et al. (2003; 142) stated "it is certainly true that private lands are essential to security of this population, and that conserving these lands *will require active support* from water management districts, Seminoles, and private landowners." (italics added.) The most recent panther annual monitoring report (FWC 2016, p. 15) stated that "[c]onserving panther habitat on private lands is essential for advancing panther recovery throughout its range." Scientific literature on the panther contains numerous discussions related to the development and implementation of private-landowner incentives for preserving and maintaining panther habitat as a valuable tool that is needed to complement public land acquisition and management (Logan et al. 1993; Evans 1994; Maehr 1997;

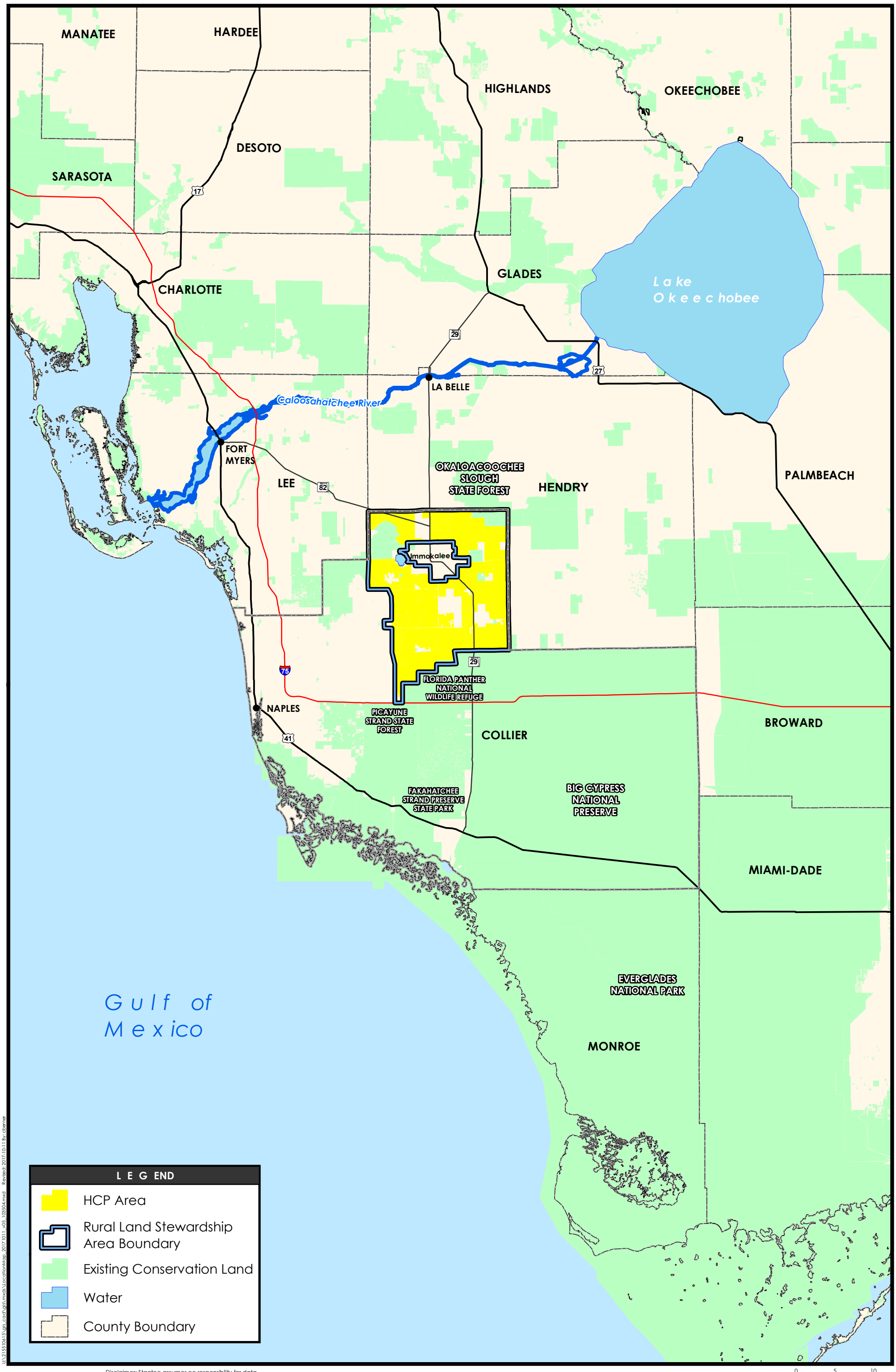

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FIGURE 1-1

Eastern Collier MSHCP Location Map

November 2017

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Kreye and Pienaar 2015). However, to date, the types of incentives offered to private landowners, and the conservation funding available to State and Federal agencies to consistently engage private landowners, have been limited and largely ineffective.

Since 1981, State and Federal wildlife biologists have captured over 243 Florida panthers in Southwest Florida, and fitted them with radiotelemetry collars and, more recently, geographic positioning system (GPS) collars (FWC 2016). The location data provided by these collared panthers have helped to define the "core population area" for the species (USFWS 2002a, Figure 37) and general patterns of habitat utilization throughout the panther's range (see Section 4, Florida Panther). While the majority of the core population area lands are currently protected within public conservation lands, including the BCNP, FPNWR, and FSSP, sizable portions of the core population area extend onto private lands in eastern Collier County and southern Hendry County that adjoin these public lands. The panther radiotelemetry and GPS data also reveal regular utilization of native habitats within two regional flowway systems in eastern Collier County (Okaloacoochee Slough and Camp Keais Strand), and sporadic utilization of extensive nearby agricultural areas.

Scientific literature on the Florida panther indicates that existing public conservation lands alone are insufficient for viable long-term conservation of the Florida panther's core population (USFWS 2002a; Kautz et al. 2006). There is broad-based agreement among Federal and State wildlife biologists, academic conservation researchers, a variety of non-governmental organizations (NGOs), and a group of rural property owners, that the engagement and active support of private landowners is essential to landscape-scale conservation efforts designed to address the panther's ecological needs.

Given the potential for privately-held native habitats within eastern Collier County to benefit the conservation of the Florida panther, a Habitat Conservation Plan (HCP) can provide a valuable mechanism for achieving permanent protection of the landscape-scale features that support panther ecology. The proposed HCP would also provide conservation benefits for other species that occur within the lands proposed to be covered by the HCP.

The U.S. Fish & Wildlife Service's (USFWS) "Habitat Conservation Planning and Incidental Take Permit Processing Handbook" (USFWS and NMFS 2016, hereinafter "HCP Handbook," at 1-2) speaks to the type of situation that exists in eastern Collier County, and advocates striking a balance between agriculture, economic development, and species conservation:

> Congress intended the HCP program to address listed and at-risk species in an ecosystem context, generate long-term commitments to conserve such species, and deliver regulatory assurances to project proponents. Congress also envisioned the HCP program as an opportunity to establish "creative partnerships" between the public and private sectors and State, municipal, and Federal agencies to conserve endangered and threatened species and their habitats (H.R. Rep. No. 97-835 (1982)). . .. Congress intended the HCP program to function not only to authorize incidental take, but also as a process to integrate non-Federal development and land-use activities with conservation goals, resolve conflicts between protection of listed species and economic activities on non-Federal lands, and create a climate of partnership and cooperation.

> In that spirit, the Services should encourage permit applicants and partners to use Congress' intent as the foundation for working together to develop an HCP. Collaboration, flexibility, ingenuity, innovation, and thoughtful planning are key to developing effective HCPs and resolving complex and controversial issues that may arise.

Indeed, the HCP Handbook notes that "[a]lthough some listed species are located on wildlife refuges, national parks, military bases, and other Federal lands, the majority of them are on non-federal lands[, and for that reason,] [t]he Services and other Federal agencies cannot recover those listed species alone." (HCP Handbook at 2-5.) The benefits of protecting private lands in eastern Collier County for the Florida panther are well documented (see Beier et al. 2003 for a literature review), and this HCP represents a viable means for achieving permanent protection of native panther habitats. Thus, the purpose of this HCP is to create a long-term balance among the complementary goals of environmental preservation, species protection, continued agricultural use of lands, and economic development. The Plan will achieve these goals through a combination of economic incentives and regulatory mechanisms, and will provide a balanced, sustainable future for the region. Because multiple species in eastern Collier County will be covered by this HCP, the plan is named the Eastern Collier Multiple Species Habitat Conservation Plan (ECMSHCP, or the Plan).

1.2 THE EASTERN COLLIER MULTIPLE SPECIES HABITAT CONSERVATION PLAN

This Plan provides a detailed, long-term, science-based methodology for the permanent protection of habitats for the endangered Florida panther and other species within the lands proposed to be covered by the HCP, referred to herein as the HCP Area (depicted in Figure 2-1, *infra*). The Plan is required to support the applications submitted by several Collier County landowners for Incidental Take Permits (ITPs) under Section 10(a)(1)(B) of the ESA. 16 U.S.C. § 1539(a)(1)(B).[1] The Plan provides a long-term (50-year) conservation and land-use planning framework for 151,779± acres[2] in Southwest Florida (Figure 1-1).

The eastern portions of Collier County comprise a variety of land uses, including, among other things, crop production, ranching, native vegetation communities, urban areas, and public lands (see Section 3, Environmental Setting). The ultimate planning goal for this region is to ensure a long-term compatible balance of conservation, continued agricultural land use, and economic development that contributes to the protection, survival, and recovery of the species covered by the Plan.

This Plan arose from a collaborative effort among property owners in eastern Collier County, NGOs, and Federal and State wildlife agencies, to address long-term planning issues related to the conservation of the Florida panther. As explained above, the landscape-scale mosaic of habitats that support the Florida panther also support many other federal and state-listed species, allowing for a multi-species approach

[1] Citations hereinafter are only to the Act.

[2] For the purpose of this Plan document, geographic information system (GIS) acreages are the best currently available estimates. Precise acreages will be determined during ITP processing.

for the Plan and ITPs. The Plan emphasizes the preservation of large expanses of native panther habitats, in a way that maintains landscape-scale habitat connectivity and facilitates panther utilization and movement.

The Plan covers eight federally-listed species: five avian species, one reptile species, and two mammal species. The Plan also covers three species – the gopher tortoise, eastern diamondback rattlesnake, and gopher frog – that are being considered for listing but are not currently federally-listed. The gopher tortoise is currently designated as candidate species for federal listing within its Florida range; the eastern diamondback rattlesnake and gopher frog are currently proposed for federal listing. The Plan also covers eight other non-federally-listed species that are currently listed as threatened by the State of Florida. All species to be covered by the Plan are included, along with their listing status, in Tables 1-1, 1-2, and 1-3, below (the Covered Species).

Table 1-1. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: federally-listed species.

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS[1]
BIRDS		
Florida scrub jay	*Aphelocoma coerulescens*	T
Northern crested caracara	*Caracara cheriway*	T
Wood stork	*Mycteria americana*	T
Red-cockaded woodpecker	*Picoides borealis*	E
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	E
REPTILES		
Eastern indigo snake	*Drymarchon corais couperi*	T
MAMMALS		
Florida bonneted bat	*Eumops floridanus*	E
Florida panther	*Puma concolor coryi*	E

[1] Federal status abbreviations (as of Aug. 2017): T -Threatened; E – Endangered

Table 1-2. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: candidate species and species under review for Federal listing.

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS[1]
REPTILES		
Gopher tortoise	*Gopherus polyphemus*	C
Eastern diamondback rattlesnake	*Crotalus adamanteus*	Under Review
Gopher frog	*Lithobates capito*	Under review

[1] Federal status abbreviations (as of Aug. 2017): C- Candidate species for federal listing; the gopher tortoise is also listed as Threatened by the State of Florida.

Table 1-3. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: species listed by the State of Florida.

COMMON NAME	SCIENTIFIC NAME	STATE STATUS[1]
BIRDS		
Burrowing owl	*Athene cunicularia*	T
Florida sandhill crane	*Antigone canadensis pratensis*	T
Little blue heron	*Egretta caerulea*	T
Roseate spoonbill	*Platalea ajaja*	T
Southeastern American kestrel	*Falco sparverius paulus*	T
Tricolored heron	*Egretta tricolor*	T
MAMMALS		
Big Cypress fox squirrel	*Sciurus niger avicennia*	T
Everglades mink	*Neovison vison evergladensis*	T

[1] State status abbreviations (as Aug. 2017): T –Threatened

The USFWS (2002) characterized the long-acknowledged role of private lands for Florida panther conservation as follows:

> Regional conservation planning also recognizes the importance of the ecological interactions among native ecosystems, agricultural areas, and developed lands and attempts to design conservation areas and strategies that maximize compatibility and effectively conserve natural resources including biodiversity and important ecosystem processes.
>
> A regional landscape strategy for the Florida panther in south Florida is dependent on two complementary aspects: science-based management of existing and potential future public lands consistent with panther conservation, and cooperation with private landowners that currently manage thousands of acres of panther habitat (Maehr 1990).

Ultimately, the Plan and ITPs allow participating property owners to plan and coordinate future permitted activities within defined areas in the HCP Area (the areas designated for Covered Activities, depicted on Figure 2-1, *infra*), enabling integrated and more effective conservation planning, avoiding piecemeal development scenarios, supporting effective long-term cumulative impact analyses, and simplifying future individual consultations between the USFWS and other Federal agencies. These goals are consistent with the longstanding consensus that private lands constitute a key component for successful Florida panther conservation, and that the active cooperation of private property owners is an essential component.

1.3 PERMIT APPLICANTS AND PERMIT DURATION

The ITP applicants are a group of landowners known as the Eastern Collier Property Owners (ECPO). Collectively, ECPO members own approximately 90 percent of the private land within eastern Collier County (see Section 1.7 and Figure 2-1), as well as other lands in South and Central Florida outside the eastern Collier County area. The ECPO applicants and eventual permit holders would be (in alphabetical order): Alico, Inc.; Barron Collier Investment, Ltd.; Collier Enterprises Management, Inc.; Consolidated Citrus Limited Partnership; English Brothers Partnership; Half Circle L Ranch, LLP; Heller Bros. Packing Corp.; John E. Price, Jr. Trust; Pacific Land, Ltd.; and Sunniland Family Limited Partnership.

The duration of the ITPs will be 50 years. This is the time period necessary to complete planned and/or foreseeable permitted activities within the portion of the HCP Area designated for Covered Activities, and to fully enact conservation provisions associated with the Plan elements and ITP conditions.

1.4 PERMIT BOUNDARY/HCP AREA

The HCP Area is located in the northeastern corner of Collier County, and surrounds the Town of Immokalee (Figure 1-1). The HCP Area is located within the boundaries of the RLSA (see Figure 2-1), and comprises approximately 151,779 acres of lands owned by the applicants, which do not include existing or future County and State roads within eastern Collier County. Over 20,000 acres of non-ECPO private property are located within the RLSA. Because the applicants do not own these lands, they are outside the HCP Area. These non-ECPO lands may later be voluntarily incorporated into the Plan through

Certificates of Inclusion, and are therefore depicted in Figure 2-1 as lands "Eligible for HCP Inclusion (Non-ECPO Lands)" (see Section 2.4). The major existing and traditional land uses and land cover within the HCP Area include agriculture, ranching, native vegetation communities, residential and commercial development, and earth mining.

As shown on Figure 1-1, the HCP Area borders the FPNWR and BCNP to the south, public conservation lands that support the core population area for the Florida panther. The HCP Area also borders the OSSF to the north and east, which is heavily utilized by panthers and serves as a landscape linkage in a panther dispersal corridor leading to the Caloosahatchee River and then northward into Central Florida. To the west are the privately owned 13,000-acre Audubon Corkscrew Swamp Sanctuary, which harbors the largest breeding colony of threatened wood storks in South Florida, and the publicly-owned CREW conservation lands. The HCP Area therefore occupies a strategic area that, if properly planned and managed, can function as an area of increased value to the Florida panther and other species, featuring important, landscape-scale habitat linkages ("critical linkages") in perpetuity (Oetting et al. 2014). The avoidance, minimization, mitigation, and management actions proposed in the Plan and specified in the ITPs would promote and maintain these linkages.

The approximately 151,779-acre HCP Area – all of which is owned by ECPO members – occupies approximately 90 percent of the private lands within eastern Collier County. As described in greater detail in Chapter 2, the Plan designates 50,175 acres of lands, primarily within previously-cleared agricultural areas, where up to 45,000 acres of Covered Activities may occur. The remaining approximately 107,000 acres, which include existing regional wildlife corridors that allow for wildlife movement among existing public conservation lands, will be permanently preserved under the Plan. Further enhancing the ratio of preserved areas to development, the 5,027-acre Town of Ave Maria will be included in the 45,000 acres where Covered Activities may occur, even though Federal permitting and Section 7 consultation has been completed for the Town of Ave Maria, reducing the maximum acreage of Covered Activities attributable to the ITPs to 39,973 acres. There are two parcels of land located within the RLSA (and the outer boundaries of the HCP Area) – the Hogan Island Quarry and the Immokalee Sand Mine – that are owned by ECPO members but are not included in the HCP Area or as Covered Activities because the Federal permitting process for each, including Section 7 consultations, is either already complete or is expected to be complete by the time the ITPs are issued (depicted in Figure 2-1 as "Prior Federal Permitting Initiated"). Nonetheless, these two parcels are accounted for in the overall configuration and planning for wildlife corridors and other ecologically beneficial features of the Plan.

1.5 SPECIES TO BE COVERED BY PERMIT

The federally-listed species to be covered under the ITPs are listed in Table 1-1. These species are included in the online USFWS database of federally-listed and candidate species for Collier County (Information for Planning and Consultation database at: https://ecos.fws.gov/ipac/location/index). A candidate species for federal listing in Florida, the gopher tortoise (*Gopherus polyphemus*), is also included in the Plan, along with two species that are proposed for federal listing, the eastern diamondback rattlesnake (*Crotalus adamanteus*) and the gopher frog (*Lithobates capito*) (Table 1-2).

Section 8.1.4 details the measures to be taken if, subsequent to issuance of the ITP, additional species become federally-listed within the HCP Area. Table 1-1 excludes those federally-listed species that occur exclusively in marine environments, coastal ecosystems (beaches, mangroves, nearshore environments), and other environments not present within the HCP Area. Only one plant species within Collier County is currently designated as a proposed species for listing – Florida prairie clover (*Dalea carthagenesis floridana*) – but the rocklands, costal uplands, and marl prairies that the plant inhabits are not found within the HCP Area. Therefore, no plant species are included in the Covered Species.

In addition to the federally-listed Covered Species, the Plan will cover eight species currently listed by the State of Florida as "Threatened" (Table 1-3), based on recent Biological Status Reviews performed by the Florida Fish and Wildlife Conservation Commission (FWC). All of the State-listed species in Table 1-3 will benefit directly from the Plan, because each of these species utilizes the same or similar habitat(s) as the federally-listed Covered Species. Given the large expanse of the areas designated under the Plan for Preservation/Plan-Wide Activities and Very Low Density Use (see Section 2, Plan Description), other game and non-game species that are not currently listed or recommended for listing by State or Federal agencies and that are not covered by the Plan – such as the Florida black bear – will also benefit from these conservation actions.

For the status, distribution, habitat utilization, and occurrence of each Covered Species within the HCP Area, please refer to Section 4 (Florida Panther) and Section 5 (Other Covered Species) of this document.

1.6 REGULATORY FRAMEWORK

1.6.1 Federal Endangered Species Act

Section 9 of the Act and Federal Regulations enacted pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." ESA § 3(19). Harm is further defined by the USFWS to include significant habitat modification or degradation that results in death or injury to listed species "by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Harass is defined as intentional or negligent actions that create the likelihood of injury to listed species by annoying them "to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering." Incidental take is defined as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." 50 CFR § 17.3.

Pursuant to section 11(a) and (b) of the Act, any person who knowingly violates section 9 of the Act or any permit, certificate, or regulation issued pursuant to section 9, may be subject to civil penalties of up to $25,000 for each violation or criminal penalties up to $50,000 and/or imprisonment of up to one year.

Individuals and State and local agencies proposing action that may result in the take of federally-listed species may apply for an ITP under section 10(a)(1)(B) of the Act to maintain compliance with the law. Such permits are issued by the USFWS when take is not intentional, and is incidental to otherwise legal activities. An application for an ITP must be accompanied by an HCP. Under section 10(a)(1)(B) of the

Act, the anticipated take to be authorized must be incidental, the applicant must "minimize and mitigate the impacts of" take "to the maximum extent practicable," the authorized take must not "appreciably reduce the likelihood of the survival and recovery of the species in the wild," and adequate funding for the plan must be ensured.

Section 7 of the Act requires Federal agencies to ensure that their actions, including issuing permits, are "not likely to jeopardize the continued existence of [federally-listed] species or result in the destruction or adverse modification of habitat of such species. ESA § 7(a)(2). "Jeopardize the continued existence of" pursuant to 50 CFR § 402.02, means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." Issuance of an incidental take permit under section 10(a)(1)(B) of the Act by the USFWS is a Federal action subject to section 7 of the Act. Under section 7, the USFWS is required to consult with itself (i.e., conduct an internal consultation), as well as other Federal agencies.

Under ESA section 7, cumulative effects are effects of future State or private actions that are reasonably certain to occur in the action area, which is defined by the influence of direct and indirect impacts of the Federal action.

1.6.2 The Section 10(a)(1)(B) Process: HCP Requirements and Guidelines

Although the Section 10(a)(1)(B) process is iterative and often non-linear, the process includes four primary phases: (1) pre-application; (2) development of the HCP and environmental compliance documents; (3) application processing, permit decision-making, and issuance of the ITP; and (4) the post-issuance phase, including implementation of the HCP and compliance monitoring. HCP Handbook at 2-1.

During the first phase, USFWS provides guidance to prospective applicants, and determines the level of analysis required under the National Environmental Policy Act (NEPA)based on the nature and scale of the HCP.

During the second phase, the applicant prepares a plan that integrates the proposed project or activity with the protection of listed species. An HCP submitted in support of an ITP application must include the following information:

- impacts likely to result from the proposed taking of the species for which permit coverage is requested;
- measures that will be implemented to monitor, minimize, and mitigate impacts; the funding that will be made available to undertake such measures; and the procedures to deal with unforeseen circumstances;
- a description of alternative actions that the applicant considered, and an explanation of why those alternatives were not selected; and

- additional measures USFWS may require as necessary or appropriate for purposes of the plan.

HCP Handbook at C-1. The HCP development phase concludes and the permit processing phase begins when a complete application package is submitted to the appropriate permit-issuing office. A complete application package consists of (i) a draft HCP, (ii) an Implementing Agreement (IA), if applicable, (iii) a permit application, and (iv) payment of a $100 fee by the applicant(s). HCP Handbook at 2-13. USFWS is required to publish a Notice of Availability of the HCP package in the Federal Register and allow for public comment. The USFWS also prepares an Intra-Service Section 7 Biological Opinion and a Set of Findings, which evaluates the Section 10(a)(1)(B) permit application in the context of permit issuance criteria (see below). An Environmental Action Statement, Environmental Assessment, or Environmental Impact Statement serves as the USFWS's record of compliance under NEPA, and is subject to public comment. As noted in the Executive Summary, USFWS published a notice of intent to prepare an EIS in the Federal Register in March 2016 (81 Fed. Reg. 16,200 (March 25, 2016)), held a public scoping meeting on April 12, 2016, and has begun drafting an EIS analyzing the proposed ITPs.

During the third phase, USFWS oversees the public review process and undertakes decision-making. This phase includes development by USFWS of a document that describes USFWS's findings and provides a basis for USFWS's permitting decision. The third phase ends with USFWS's permit issuance decision. Pursuant to ESA § 10(a)(1)(B), USFWS will issue an ITP if the following statutory criteria for issuance of the permit are met:

- the taking will be incidental;
- the impacts of incidental take will be minimized and mitigated to the maximum extent practicable;
- 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;
- the applicant will provide any additional measures that the Secretary of the Interior requires as being necessary or appropriate; and
- the Secretary of the Interior has received any other assurances, as may be required, that the HCP will be implemented.

The public is notified of permit issuance by publication in the Federal Register.

During the fourth phase, the permittee and other responsible entities implement the Plan, and the USFWS monitors the permittee's compliance with the Plan as well as the long-term progress and success of the Plan.

1.6.3 National Environmental Policy Act

The purpose of NEPA is two-fold: to ensure that Federal agencies examine environmental impacts of their actions (in this case, deciding whether to issue an ITP) and to inform and involve the public. NEPA serves as an analytical tool to consider direct, indirect, and cumulative impacts of the proposed action and alternatives to help the USFWS decide whether to issue an ITP. The USFWS will complete a NEPA analysis as part of the ITP application process.

1.6.4 National Historic Preservation Act

All Federal agencies are required to examine the cultural impacts of their actions (e.g. issuance of a permit). This may require consultation with the State Historic Preservation Office and appropriate American Indian tribes. All ITP applicants are requested to submit a Request for Cultural Resources Compliance form to the USFWS. To complete compliance, the applicants may be required to contract for cultural resource surveys and possibly provide mitigation to address the impacts on cultural resources, if any, of authorizing incidental take of listed species.

1.7 COUNTY-LEVEL PLANNING AND ZONING

The Plan builds upon, and closely integrates with, Collier County's planning and zoning framework for lands within eastern Collier County. This section briefly summarizes the recent history of planning and zoning in eastern Collier County, the evolution of the County's innovative program to protect natural resources and agriculture while allowing for economic development, how that program underpins several key elements of the Plan, and how the Plan builds on the RLSP to provide significant conservation value beyond what is possible under the RLSP alone.

1.7.1 Background

In the late 1990s, the State of Florida challenged Collier County's comprehensive plan, contending that the required conservation elements would not sufficiently protect natural resources (including listed species and their habitats). Environmental NGOs intervened in support of the State. The challenge was upheld by a Florida administrative law judge in a March 1999 ruling. In June 1999, Governor Jeb Bush issued Final Order AC-99-02, which directed Collier County to perform an assessment of 195,000 acres in eastern Collier County (known as the "Immokalee Area Study"). Specifically, the order required that the assessment address long-term planning issues in order to balance natural resource protection, agriculture, and economic development within the 195,000-acre area.

Between 1999 and 2002, the applicants collaborated with Collier County, environmental NGOs, consultants, local citizens, and State agencies to complete the assessment, and to develop new comprehensive planning strategies and policies that would satisfy the requirements of the State's Final Order. The initial efforts involved a thorough compilation, mapping, and synthesis of natural resource and land use data for the 195,000-acre area, to serve as an objective and verifiable basis for planning and natural resource protection. The datasets collected through this process were entered into GIS to

allow for spatial analyses, data visualizations, data updating, and reporting. A report synthesizing this information was submitted to Collier County in December 2000.

Between 2000 and 2002, stakeholders utilized the GIS data to develop and test various scenarios for meeting the requirements of the Final Order. The stakeholders realized that any attempt to simply impose restrictive new zoning regulations would seriously compromise any chance of creating a broadly supported and viable long-term plan for the area. Collaborative stakeholder engagement likely would have ceased as a result of new zoning restrictions that would have effectively imposed the most restrictive burdens on those property owners who possessed the highest value natural resources, preventing those property owners from realizing the economic value of their land, including the benefits of future development and continued agricultural land use. Moreover, State of Florida statutes require that any such change that compromises private property vested rights (e.g., "downzoning" property) be considered a taking that must be compensated economically by the government entity imposing the change (Chapter 70, Florida Statutes). In short, simply imposing new zoning and/or land use regulations in eastern Collier County would likely have been counterproductive, logistically difficult, subject to protracted legal challenges, and ultimately unworkable.

As various scenarios were considered (with a 2002 Final Order deadline looming), the stakeholders understood that any effort to successfully achieve a long-term balance between agriculture, natural resource conservation, and economic development must recognize the potential economic value of *each* of these activities, and be available to all property owners within the 195,000-acre area. A breakthrough occurred when the parties concluded that economic development, primarily master-planned residential and commercial development, must be directly and quantifiably tied to permanent conservation benefits that could achieve the desired balance for future land uses. Ultimately, this collaborative process resulted in a system for calculating "credits" generated by protecting environmentally sensitive lands, and established procedures for calculating how many credits would be required to entitle a proposed development. Although the system possessed some similarities to Transfer of Development Rights (TDR) programs, this system provided more economic and regulatory incentives to protect the highest-quality natural environments, and allowed more flexibility to property owners for relinquishing various land-use rights. The resulting system was carefully calibrated, using GIS, to generate a total number of credits that could entitle a maximum development footprint within the 195,000-acre area. The plan was designed as a "closed system," so a maximum development footprint would leave the balance of the area as agricultural lands and native habitats.

This credit system became the basis for new planning policies and amendments, and was codified as the Collier County Rural Land Stewardship Program (RLSP).[3] The RLSP, approved by Collier County and the State of Florida in 2002, offers landowners a voluntary alternative to existing zoning, at the option of the

[3] The acronym "RLSP" is used throughout this document to refer to the Rural Land Stewardship Program and its associated elements. The Collier County Land Development Code (LDC), which implements the RLSP, utilizes the acronym "RLSA" to refer to the Rural Land Stewardship Area, the geographic area within which the County's RLSP policies and codes apply.

property owner, and provides for a more strategic and environmentally sensitive balance between conservation and development. Because entry into the program is purely voluntary for each property owner, no downzoning or property rights issues are triggered. As of this writing, the RLSP has operated continuously for 15 years, and has proven successful in meeting the policy goals for balanced economic development, agricultural land use, and permanent protection of environmentally sensitive lands.

1.7.2 Rural Land Stewardship Program (RLSP) Basics

Prior to the 2002 adoption of the RLSP, the zoning in eastern Collier County was (and to this day remains) one dwelling unit per five-acre area. This zoning plan can result in low-density growth patterns that fragment habitat, create inefficiencies in infrastructure and services, and generally complicate effective conservation actions. These low-density patterns are found immediately west of the HCP Area in the area known as “Golden Gate Estates” (see Figure 2-1, aerial imagery on left side of figure).

The RLSP did not change the underlying zoning of eastern Collier County, for the reasons outlined in the previous section. Rather, the RLSP operates as a zoning overlay, where the standards and criteria defined for the RLSP are applicable only if a property owner within the RLSA voluntarily elects to enter the program. Property owners may elect to enter the program when they wish to develop their property at densities greater than one dwelling unit per five acres, when they wish to set aside environmentally sensitive lands for protection, when they wish to receive credit for permanently limiting land uses to agriculture, and/or when they want to undertake other allowable activities incentivized by the program.

The RLSP creates incentives for property owners to protect environmentally sensitive lands (sending areas) permanently, in exchange for “stewardship credits” that can be used, traded, or sold to entitle compact forms of development (receiving areas) at higher densities than baseline zoning. RLSP policies mandate that compact development at higher densities can only occur within those areas that have been mapped as having limited natural resource values (i.e., previously cleared areas), and then only through the use of stewardship credits. Stewardship credits are only recognized after a perpetual “Stewardship Easement” is recorded for the land parcel being protected. The easement runs with the land in favor of Collier County and a State agency such as the Florida Department of Agriculture and Consumer Services (FDACS), the Florida Department of Environmental Protection (FDEP), or the South Florida Water Management District (SFWMD).

Under the RLSP, the local approval process for sending areas and receiving areas involves applicant submittal of a technical report that characterizes the sending area’s natural resources and credits generated, a rigorous application review by county planning and environmental staff, issuance of a staff report to the Collier County Board of County Commissioners, a public hearing before the commissioners (with a minimum 15 days’ notice in local newspapers), and majority approval of a resolution by the Board. Easements are recorded in the official County records after Board approval.

For property owners who enter the RLSP and seek to develop land at densities greater than existing zoning, Collier County will not issue any development approvals until the owner obtains (generates or purchases) the quantity of stewardship credits necessary to entitle the development. In essence, this

mechanism ensures that the construction of higher-density development (receiving areas) cannot commence until after the associated sending areas are under permanent protection with recorded easements.

The stewardship credit system was calibrated in a manner that protects several acres of native habitat and/or open space in exchange for one acre of higher-density development (the exact ratio depends upon habitat quality and other environmental factors). Implementation of the RLSP is intended to preserve the large regional wetland flowway systems and large blocks of interconnected upland and wetland native habitats that occur within the program area. Skeptics of the RLSP questioned whether the program would protect environmentally sensitive lands as planned. To date, however, over 50,000 acres have been designated for protection under the RLSP, including the vast majority of one regional flowway, and 20,000 acres of high-value panther habitats directly adjacent to the FPNWR and BCNP. A five-year review of the RLSP completed in 2009 concluded that the program was meeting the policy objectives it sought to achieve (Collier County 2009).

The five-year review resulted in a recommendation that residential and commercial development be capped at 45,000 acres within the RLSA. In order to reach that development cap, the balance of the HCP Area (approximately 107,000 acres, or 70 percent) would be protected permanently, in return for sufficient stewardship credits to entitle the development. Another recommendation was to increase the incentives for agricultural preservation, in order to preserve open space, agriculture, and the rural economy. This landscape-scale mosaic of native habitats and agricultural uses currently supports the Covered Species, as well as other species.

Since 2002, the RLSP policies have been implemented through the Collier County Land Development Code, which provides the detailed standards, procedures, protection mechanisms, site design criteria, and related program elements. The documentation may be accessed online at: https://library.municode.com/fl/collier_county/codes/land_development_code; see Section 4.08).

Several aspects of the RLSP provide assurance that the protection of environmentally sensitive lands (sending areas) will precede any local approvals to begin development activities within designated receiving areas:

- Lands within the RLSA cannot be developed at densities greater than existing zoning (1 dwelling unit per 5 acres) unless a property owner voluntarily enters the program;
- Stewardship credits can only be generated (and officially recorded in the County ledger) through the designation of environmentally sensitive lands as sending areas, which requires the recording of perpetual easements over those lands;
- A receiving area (and its associated development plans) cannot be approved by Collier County unless/until the applicant can demonstrate that it possesses a sufficient number of stewardship credits;

- Therefore, no construction activities within receiving areas may commence until the Collier County staff and the Board of County Commissioners have verified that the required stewardship easements over the associated sending areas have been recorded; that the applicant possesses a sufficient number of credits to entitle the development; and the receiving area development plans are in compliance with the Collier County Land Development Code, Section 4.08.

- Stewardship credits can only be generated and utilized within the RLSA. The system was initially calibrated to limit the extent of potential future development. Current proposed RLSP amendments would enforce a strict cap for receiving areas of 45,000 acres total, and the system would be recalibrated to achieve that policy goal.

Many factors provide assurance that the RLSP will remain in place through the 50-year term of the ITP:

- The RLSP has been in place for over 15 years, and the program is working as designed;

- The RLSP is considered a great planning success by Collier County commissioners, staff, and RLSP stakeholders;

- The first development under the RLSP – the Town of Ave Maria – brought mixed-use economic development to the area and preserved over three acres of environmentally valuable lands for every acre of development;

- The tax base for Collier County is increased by the new developments, and the sending areas (placed under perpetual easements) remain on the County tax rolls;

- All of the requirements of the 1999 Final Order are satisfied through the adoption and implementation of the RLSP.

The RLSP is unlikely to be changed substantially or replaced. If the RLSP were discontinued, all of the benefits listed above would cease. The county's comprehensive plan would no longer be in compliance with State regulations, and new natural resource protection measures would need to be developed for eastern Collier County (a process that spanned three years until the RLSP was created). There would be a high likelihood of litigation resulting from any new comprehensive plan element for the area, brought by property owners and/or third-party challenges. In short, the RLSP is working so well, and the downsides of changing it substantially are so great, that the probability of such change is exceptionally low.

1.7.3 Added Benefits of the Plan

The RLSP and the Plan work in concert through a combination of economic incentives and regulatory mechanisms to achieve a balanced, sustainable future for the region. The Plan builds upon the goals of the RLSP and increases substantially the conservation benefits that are possible under the RLSP to create a long-term balance between environmental preservation, listed species protection, agriculture, and economic development.

The Plan will integrate with and reinforce the RLSP elements addressed in the section above. The permit holders would be the ECPO members listed in Section 1.3. Property bordering the HCP Area owned by other entities could become part of the Plan through Certificates of Inclusion, if acceptable to USFWS (see Section 2.4). The Plan itself limits future development to those lands depicted on Figure 2-1 as "Covered Activities," and caps that development at 45,000 acres. Additionally, under the terms of the ITP, any development within the HCP Area must provide compensation for panther habitat loss in the form of panther habitat units (PHUs; see Chapter 4). The Plan verifies that sufficient PHUs can be generated by the 107,000 acres set aside for protection in perpetuity, and all of those PHUs will be required as compensation if the 45,000-acre cap is reached.

In addition, the Plan will use the framework provided by the RLSP to provide benefits that extend well beyond those that would be possible through the RLSP alone. These benefits include the following:

- Landscape-level planning that will result in greater conservation benefits than would exist under uncoordinated participation in the RLSP, including ensuring preservation of regional wildlife habitat corridors that allow for movement of wildlife among existing public conservation lands in Southwest Florida;
- Incorporation and implementation of the Florida Panther Protection Program (FPPP)[4], a collaboration between ECPO and several leading conservation organizations that integrates a variety of programs, studies, and strategies to enhance and fund a science-based program "to better protect and manage the Florida panther in southwest Florida." (FPPP 2010).
- Creation and funding of the Marinelli Fund, which will be used for conservation activities that will benefit the Florida panther, as well as other wildlife;
- Collaboration and coordination with the Service and FWC; and
- Additional monitoring required under the ITPs that is not required under the RLSP.

The requested term of the ITPs – 50 years – will allow for planning, permitting and completion of contemplated or foreseeable development within the portion of the HCP Area designated for Covered Activities, and for implementation of conservation actions that benefit Covered Species in the portions of the HCP Area designated for Preservation/Plan-Wide Activities and Very Low Density Use.

[4] "The purpose of the Florida Panther Protection Program …is to facilitate the management and protection of panthers within the Enhanced Protection Area [i.e., RLSP/Plan area] by providing a contiguous range of preserved panther habitat in the Enhanced Protection Area to assist recovery through the use of buffering against panther-human interaction, locating and construction of panther crossings, and the protection, enhancement, restoration, including corridor enhancement or restoration, or acquisition of panther habitat demonstrated to be important to panther protection and management within the Enhanced Protection Area based upon a technical review and analysis of available data..." (excerpt from FPPP MOU between Rural Landowners and Conservation Organizations, June 2008).

1.8 SUMMARY OF ALTERNATIVES TO THE ECMSHCP

Chapter 10 of this document describes four basic alternatives considered by the applicants (ECPO), and the reasons why the Plan emerged as the preferred alternative. The four alternatives included: Existing Zoning (no HCP); the Proposed HCP (Plan); a Panther-Only HCP; and a Panther Review Team (PRT) HCP Configuration.

When assessing these four alternatives, it is useful to consider a 2006 academic study of statewide population growth and projected land use, and specifically the projected land use patterns for eastern Collier County. The "Florida 2060" report (Zwick and Carr 2006) utilized population projections from 2005-2060, the existing gross urban densities (as of 2005), and estimates of developable land (considering proximity of urban centers; road densities; and absence of wetlands) to model population distributions on 1-acre grid cells in GIS.

Figure 1-2 depicts the Florida 2060 data within the RLSP. In this modeled scenario, approximately 135,000 acres of land would be developed and populated. Note that the study did not take into account the 2002 Collier County comprehensive plan amendments that effectively limited some of this potential development. This 2060 scenario would impact most of the native habitat acreage in eastern Collier County, and would disconnect and fragment regional flowways and wildlife corridors.

The existing Collier County zoning within the HCP Area allows for one dwelling unit per five-acre area, and thus defines one baseline alternative to the Plan. Figure 1-3 illustrates the extent of potential development for the "Existing Zoning" alternative, using the same color scheme as Figure 1-2 to allow for visual comparisons. Under the existing program, over 90,000 acres of land within the RLSP area are designated as "Open" to allow potential development. Approximately half of this acreage could be developed if property owners voluntarily entered the RLSP and developed within receiving areas. Those owners who voluntarily chose not to enter the program and elected to develop at the existing 1:5 zoning could develop the other half of the "Open" lands, bringing the total development footprint (RLSP and existing zoning) to over 90,000 acres. This scenario would preserve the core of the regional flowways, large blocks of habitat, and wildlife corridors, but would preserve far less land and native habitats than the proposed HCP.

The proposed HCP (Plan), schematically depicted in Figure 2-1, occupies approximately 152,000 acres within the RLSA, and proposes up to 45,000 acres of development (see Chapter 2). The balance of the HCP Area, 107,000 acres, would be placed under perpetual easements that run with the land. The proposed HCP limits potential development, preserves the greatest land acreage, preserves the greatest extent of native habitats, and protects the existing flowways and wildlife corridors within the RLSP. The proposed HCP provides an integrated conservation plan for the Florida panther and eighteen other species on a landscape scale, while the other alternatives lack a long-term plan and would result in ad-hoc development patterns and mitigation.

The third alternative, a "Panther-Only HCP," would cover the same land area as the proposed HCP (Figure 2-1), but would only cover the Florida panther under the terms of the ITPs. The eighteen other

Covered Species would be evaluated by the relevant permitting authorities on a project-by-project basis, and conservation actions for those species would be determined for each project. While the panther would benefit from an integrated conservation plan under the ITPs, the other species would not be "Covered Species."

The "Panther Review Team (PRT) Configuration" alternative accommodated up to 45,000 acres of development, similar to the proposed HCP (see section 10.4). Although much of the potentially developable land area in this alternative overlaps with the proposed HCP (Plan), the PRT configuration proposed some additional area for preservation, additional buffers along the Camp Keais and Corkscrew systems, and different configurations for two panther corridors. However, the PRT alternative included non-ECPO lands outside the HCP Area in its analyses (see Figure 2-1 and Section 2.4). While those lands could eventually be included in the Covered Lands, they are not currently in the Plan. Additionally, the configuration of land ownership and landowner interests do not align with the PRT configuration, rendering the alternative impracticable.

In summary, the proposed Plan represents the preferred alternative and the best opportunity for perpetual preservation of habitats for the Florida panther and the eighteen other Covered Species. The existing zoning for the RLSP could result in a development footprint of over 90,000 acres, while the development footprint within the HCP Area would be limited to 45,000 acres. In comparing the proposed HCP to a "Panther-Only HCP," there are clear conservation and regulatory benefits to including the eighteen other Covered Species. Finally, although the PRT alternative proposed a similar development footprint as the proposed HCP, the PRT configuration includes non-ECPO lands outside of the HCP area, and does not align with land ownership patterns and landowner interest. The proposed HCP therefore represents the preferred and most practicable alternative.

1.9 CONCLUSION

The Plan furthers the goal of panther conservation, and conserves many other federally-listed and state-listed species, by working with USFWS to incorporate RLSP and FPPP program elements in a formal plan under Section 10 of the ESA. The RLSP and the Plan synergistically provide assurances at the local and federal levels that conservation measures will be implemented, and that a long-term balance of land uses will be achieved. Using the framework established by the RLSP, the Plan provides landscape-level planning and other benefits that extend well beyond that the RLSP could accomplish alone.

Once issued, the ITPs will specify the rights and responsibilities of all parties to the Plan, and legally bind the parties to its provisions. After several decades of panther research, meetings, agency outreach, and discussions, this Plan finally provides a viable science-based, legally binding mechanism for the realization of Florida panther habitat preservation on private lands, along with preservation of other Covered Species habitat, and a long-range vision for sustainable regional planning in eastern Collier County.

2. PLAN DESCRIPTION AND ACTIVITIES COVERED BY PERMIT

2.1 PLAN DESCRIPTION

The Plan provides a long-term (50-year) framework for the preservation and management of approximately 107,000 acres of privately owned land, located within the 151,779± acres of privately owned lands in eastern Collier County. The approximately 107,000 acres protected through the Plan – the lands that will ultimately be dedicated for Preservation/Plan-Wide Activities and Very Low Density Use at Plan completion (described in section 2.2 below and depicted in Figure 2-1) – comprise an ecologically important landscape-scale mosaic of habitats and land uses that support the Florida panther and seven other federally-listed species. These lands also support one candidate species for federal listing, two species that are under review for federal listing, and eight non-federally-listed species that are listed threatened by the State of Florida.[1]

The Plan conserves major regional wildlife habitat linkages, preserving habitat connectivity between the existing public conservation lands to the south of the HCP Area that are part of the panther's core population area, and between the public conservation lands and dispersal corridors to the north and east of the HCP Area. Specifically, these regional linkages connect the Big Cypress National Preserve (BCNP), Florida Panther National Wildlife Refuge (FPNWR), Fakahatchee Strand State Preserve (FSSP) and Picayune Strand State Forest to the Corkscrew Regional Ecosystem Watershed (CREW), Okaloacoochee Slough State Forest (OSSF), Dinner Island Ranch Wildlife Management Area, Spirit of the Wild Wildlife Management Area, and the panther "Dispersal Zone" (USFWS 2002a; Kautz et al. 2006). The conservation and management of these lands will provide important ecological benefits for the Florida panther, the other Covered Species, and other wildlife, including black bear.

Under the Plan, the historic, ongoing, and future land uses within the approximately 107,000 acres of protected lands — primarily agriculture and ranching — will continue and will provide the basis for long-term sustainable activities compatible with conserving the Covered Species. Outside of the protected areas, Covered Activities will include up to 45,000 acres (combined total) of residential/commercial development and earth mining within predefined portions of the 151,779±-acre HCP Area, consistent with the Collier County RLSP. These 45,000 acres include the 5,027-acre Town of Ave Maria, for which Federal permitting and Section 7 consultations have been completed. The acreage of Covered Activities attributable to the ITPs, therefore, is actually less than 40,000 acres (45,000 – 5,027 = 39,973).

The Covered Activities will occur primarily within previously-cleared agricultural areas that currently possess low proportions of native habitats, and exhibit little native habitat connectivity. These previously-cleared or otherwise disturbed areas generally consist of active agricultural fields, fallow fields, pastures, and other areas managed for agricultural production, which may include minor remnants of native vegetation (e.g., small cypress domes; small depressional wetlands). The Plan will thereby provide prospective, landscape-level management of future development on privately owned lands, by consolidating and directing development away from more ecologically valuable areas of

[1] The species covered by the Plan are listed in Tables 1-1, 1-2, and 1-3 (see Chapter 1, Background).

interconnected native habitats and toward previously cleared areas with lower habitat support functions. This integrated landscape approach provides significant ecological benefits over the piecemeal, project-by-project approach that typically occurs without landscape-level coordination and planning of conservation actions among separate, private landowners.

The Plan builds upon the ecological benefits arising from the RLSP (see Chapter 1), augmenting the RLSP by providing greater certainty for long-term planning of economic activities, as well as habitat preservation for the Florida panther and other Covered Species, through extensive preservation of habitats and regional wildlife corridors. The Plan institutes a 50-year integrated framework, and will reduce planning risks and regulatory uncertainties for property owners, regulatory agencies, environmental advocates, and the general public. Expanding upon the potential benefits of the RLSP, the Plan will provide the following benefits that will further long-term protection goals for the Florida panther and other Covered Species:

- Preservation, through conservation easements, of approximately 107,000 acres of land, which include existing regional wildlife corridors ("critical linkages") that provide landscape-scale "ecological greenways" among existing public conservation lands;
- Maintenance of lands designated as Preservation/Plan-Wide Activities and Very Low Density Use, to preserve the ecological value of those lands for Covered Species, through land management practices such as control of invasive plant species;
- Minimization of adverse impacts to Covered Species (e.g., concentrating and directing development to the more heavily developed western portions of the RLSP; directing lights and noise away from habitat);
- Monitoring potential impacts of the Covered Activities to listed species and their habitat to ensure that impacts are accounted for and minimized;
- Enhanced panther habitat mitigation (25% additional mitigation beyond that currently required by USFWS panther habitat functional analyses for activities subject to Federal approval within the panther primary zone); and
- Incorporation and implementation of the Florida Panther Protection Program (FPPP).

The Plan will also provide funding for activities undertaken through the Paul J. Marinelli Florida Panther Protection Fund (the Marinelli Fund, described in section 2.7 below and in Chapter 9). The Marinelli Fund was established through the FPPP to fund panther conservation activities. In 2016, the FPPP expanded the potential scope of the Fund's uses to include funding conservation activities to benefit other Covered Species, in addition to the panther. The Plan will support the Marinelli Fund through (i) contributions to be made on a per-acre basis as Covered Activities are initiated and (ii) transfer fees to be paid on a per-unit basis as homes within the HCP Area are sold and re-sold. Initiatives to benefit the Florida panther and other Covered Species will be undertaken at the discretion of the Fund's Board of Directors, and are expected to include funding for activities such as the following:

- Enhancement and management of wildlife corridors (the "North" and "South" corridors, described in Section 2.2 *infra*, with areas to be enhanced depicted as arrows on Figure 4-9) that facilitate landscape-scale movement of panther and black bear, in addition to other wildlife;
- Construction of panther and other wildlife crossings on roadways within the HCP Area; and
- Land acquisition, enhancement, and management, providing additional habitat for panther and other Covered Species.

Figure 2-1 depicts the extent of the HCP Area within the RLSA, the areas designated for Covered Activities (residential/commercial development and earth mining), Preservation/Plan-Wide Activities, Very Low Density Use, and Base Zoning (each described below). The Plan sets forth the acreage and general location for each of the designated uses (Figure 2-1). Precise locations will be determined in the future.

The Plan designates 97,086 acres as "Preservation/Plan-Wide Activities." The Plan also designates a 50,175-acre area where Covered Activities may occur, but caps the total for Covered Activities at 45,000 acres. Thus, 45,000 acres of Covered Activities may occur anywhere within this 50,175-acre area. The unused balance (5,175 acres) will be placed in the "Preservation/Plan-Wide Activities" designation, bringing the total of that designation to 102,261 acres. The Plan designates 2,087 acres "Very Low Density Use," indicating areas that may be used for such purposes as isolated residences, lodges, and hunting/fishing camps. In the event this property is used for such purposes, any construction would be limited to no more than one structure or dwelling unit per 50 acres. Finally, the 2,431-acre area within the HCP Area that makes up the Half Circle L Ranch is currently identified as "Base Zoning." These lands are located in an RLSP "Open" overlay area, where either development or preservation can occur under RLSP regulations, and where base zoning (1 dwelling unit per 5 acres) under the Collier County Land Development Code applies. The Half Circle L Ranch is for sale on the open market, and the current property owner is a member of the FPPP and an applicant for an ITP. The status of this property will be resolved during the timeframe for USFWS review of the HCP document, drafting of the IA (if applicable), and processing of the ITP applications. Currently, this Base Zoning area is simply identified. If the current or future owner chooses not to develop the area, it will be included in the Plan as land designated for Preservation/Plan-Wide Activities. If the current or future owner develops the area, the development footprint will be included under the 45,000-acre cap for Covered Activities and 2,431 acres that would have otherwise been designated for Covered Activities will be included in the area designated for Preservation/Plan-Wide Activities. Thus, the areas designated for Preservation/Plan-Wide Activities and Very Low Density Use will ultimately total approximately 107,000 acres, and the land designated for Covered Activities will be capped at 45,000 acres.

Figure 2-2 provides a regional view that illustrates how areas within the HCP Area designated for Preservation/Plan-Wide Activities serve to link existing public conservation lands. Table 2-1 summarizes the current land use and land cover within the HCP Area, by land designation category.

Okaloacoochee Slough State Forest

Corkscrew Regional Ecosystem Watershed

Lake Trafford

Immokalee

Immokalee Reservation

Big Cypress National Preserve

Florida Panther National Wildlife Refuge

Fakahatchee Strand State Preserve

Note: The location of Covered Activities was delineated in a Geographic Information System (GIS) to define the location, extent, and general configuration of where these Covered Activities may occur over a 50-year timeframe. The acres depicted in Covered Activities total approximately 50,175 acres. The actual total acreage of Covered Activities is constrained by the ECMSHCP to 45,000 acres within the HCP boundary. The exact configuration of Covered Activities will be refined during the design and permitting processes for each project.

L E G END

- HCP Area
- Preservation/ Plan-Wide Activities
- Covered Activities
- Very Low Density Use (≤ 1DU : 50 Acres)
- Base Zoning (1DU : 5 Acres)
- Prior Federal Permitting Initiated
- Eligible for HCP Inclusion (Non-ECPO Lands)
- Rural Land Stewardship Area Boundary
- Existing Conservation Land
- County and State Roads (not covered in ECMSHCP)

0 1 2 Miles

N

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FIGURE 2-1
HCP Land Designations
November 2017

Stantec Consulting Services Inc.
5801 Pelican Bay Blvd. Suite 300
Naples, FL 34108
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fax 239.263.6449

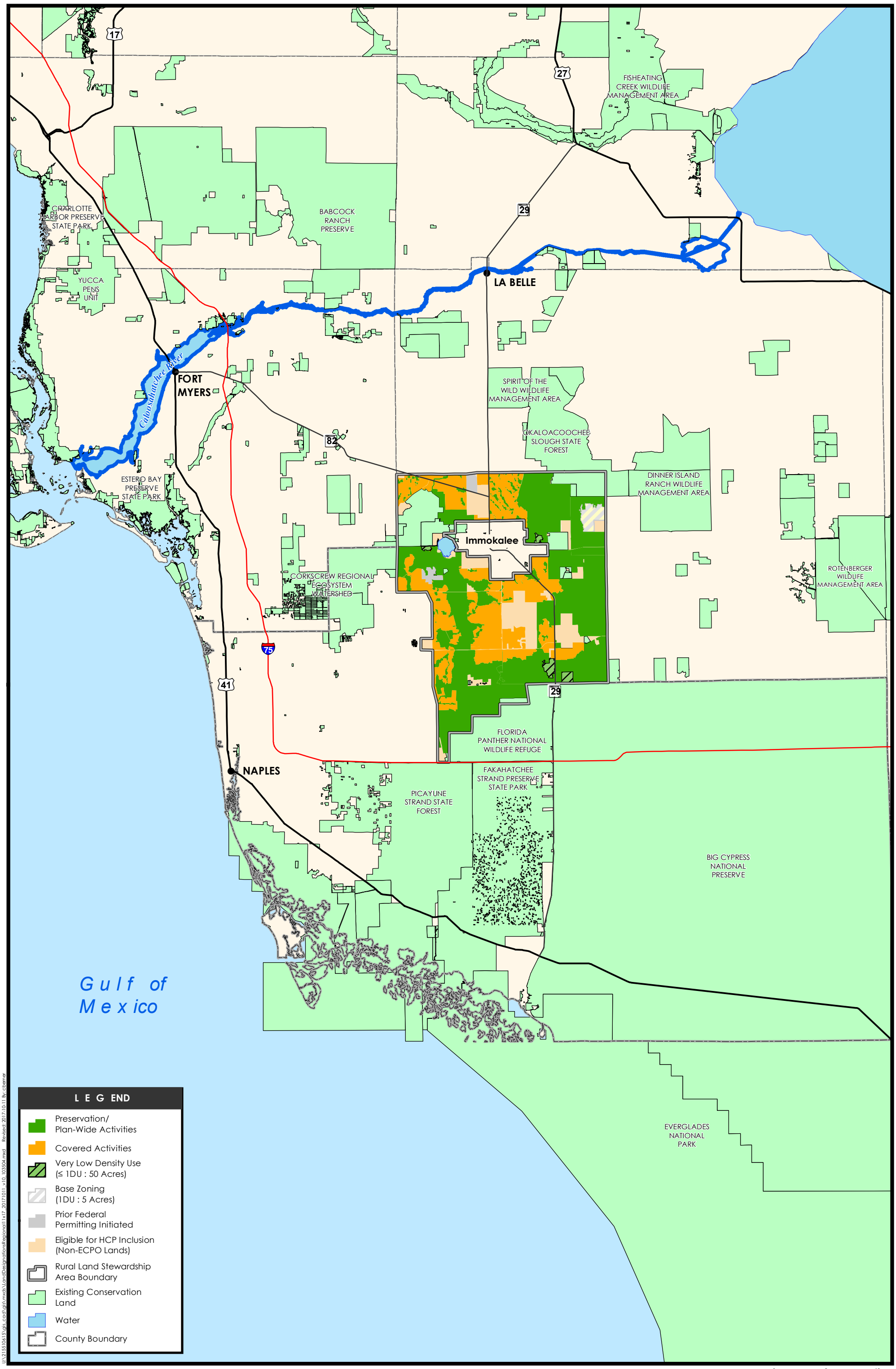

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FIGURE 2-2

HCP Land Designations - Regional View

November 2017

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Table 2-1. Existing land use / land cover within the ECMSHCP, by land designation category.

LAND USE / LAND COVER CATEGORY	COVERED ACTIVITIES (ACRES)[1]	PRESERVATION/ PLAN-WIDE ACTIVITIES (ACRES)[2]	VERY LOW DENSITY USE (ACRES)[3]	BASE ZONING (ACRES)[4]	TOTAL ACRES
Urban / Infrastructure	2,203	164	10	4	**2,381**
Mining / Oil and Gas	0	334	445	0	**779**
Pastures (Improved)	5,126	9,467	446	1,211	**16,250**
Cropland / Pasture	15,795	9,481	0	568	**25,844**
Citrus groves / other groves	19,842	8,287	0	1	**28,130**
Other Agriculture Rural Open Lands	1,730	4,457	117	0	**6,304**
Exotic Plants	377	541	2	0	**920**
Native upland non-forested	428	1,009	138	0	**1,575**
Native upland forested	1,775	9,791	307	16	**11,889**
Native wetland non-forested	2,101	25,672	169	536	**28,478**
Native wetland forested	796	27,717	442	93	**29,048**
Water	0	161	10	0	**171**
TOTALS PER FIGURE 2-1	**50,175**	**97,086**	**2,087**	**2,431**	**151,779**
TOTALS AT PLAN COMPLETION[5]	**45,000**	**102,261**	**2,087**	**TBD**	**151,779**

[1] "Covered Activities" may occur anywhere within the 50,175-acre area shown on Figure 2-1, but will be capped at 45,000 acres total. The balance of acreage between Figure 2-1 and the 45,000-acre cap (5,175 acres) eventually will be placed into "Preservation/Plan-Wide Activities."

[2] "Preservation/Plan-Wide Activities" (102,261 acres) refers to land areas preserved at Plan completion.

[3] "Very Low Density Use" refers to isolated rural structures (lodges, camps), and the acreage contributes to habitat support for Covered Species.

[4] "Base Zoning" was retained on the Half Circle L Ranch, and refers to a maximum of 1 dwelling unit per 5 acres. See section 2.5 of text.

[5] "Totals at Plan Completion" reflect the 45,000-acre cap for "Covered Activities," with the balance of land dedicated to the other land designations. The "TBD" (To Be Determined) notation reflects the fact that the Half Circle L Ranch is currently for sale, and its current zoning is retained until the current or new property owner places the land into a specific designation under the ECMSHCP.

The primary elements of the Plan are outlined in sections 2.2 and 2.3 below. The first two elements – Preservation/Plan-Wide Activities and Very Low Density Use – currently occur and/or will occur within the approximately 107,000 acres slated for permanent protection. The Covered Activities (residential/commercial development and earth mining activities), will occur within the 45,000 acres identified for Covered Activities described in section 2.3 ("Activities Covered By Incidental Take Permit").

2.2 PRESERVATION/PLAN-WIDE ACTIVITIES AND VERY LOW DENSITY USE

Activities that may occur in the lands designated for Preservation/Plan-Wide Activities include the types of agricultural, ranching, and other rural activities that have occurred throughout the HCP Area historically, and are expected to continue into the future. These predominantly agricultural activities preserve the current extent and function of the landscape-scale mosaic of habitats and land uses in this area that support the Covered Species, and are consistent with the protection of lands under the Plan.

These include activities such as the following:

- Crop Cultivation;
- Ranching/Livestock Operations;
- Forestry and Silviculture;
- Recreation;
- Exotic and Nuisance Species Control; and
- Oil and Gas Exploration and Production.

Many of these activities have generally occurred for a century or more in eastern Collier County, and in their present form are compatible with use of the lands designated for Preservation/Plan-Wide Activities and Very Low Density Use by the Covered Species. Some historic land use practices, such as the establishment and maintenance of pastures, directly benefit one or more Covered Species (e.g., northern crested caracara; Florida burrowing owl; Florida sandhill crane). In addition, existing land management practices may benefit the Covered Species. For example, prescribed burning benefits the Florida panther, gopher tortoise, and Eastern indigo snake; water retention area management may benefit wood stork and snail kite; and exotic species control benefits the Florida panther and many of the other Covered Species). Allowing these activities to continue also provides the opportunity for long-term agricultural use of lands, environmentally beneficial land management, and species conservation within a contiguous regional landscape.

Active oil and gas production has occurred within the HCP Area since the 1940s, and remains ongoing. Long-term radiotelemetry data and GPS data demonstrate that oil and gas production is compatible with utilization of the surrounding habitat by the Florida panther. No adverse effects of oil and/or gas exploration or production have been documented for the Covered Species within the HCP Area, and no incidental take of Covered Species is expected based on these activities. The oil and gas activities

conducted in the HCP Area are subject to regulation and permitting by the State of Florida (FDEP) and Federal agencies. Under the Plan, oil and gas exploration and production are activities that may occur anywhere within the HCP Area, as there are inherent uncertainties related to locating productive oil and gas reserves.

The permittees will also have the option of using the 2,087-acre area designated for Very Low Density Use for such purposes as isolated residences, lodges, and hunting/fishing camps (see Figure 2-1, Very Low Density Use). Any construction in this area would be limited to no more than one structure or dwelling unit per 50 acres. The low density of any development on these lands would be compatible with the panther's continued use of these lands.

The Plan will designate the vast majority (approximately 107,000 acres, or 70%) of the HCP Area as Preservation/Plan-Wide Activities and Very Low Density Use, which represent over 92 percent of the native habitats found within the HCP Area. This will ensure that the approximately 107,000 acres of contiguous lands will continue to support the needs of the Florida panther and other Covered Species through preservation, management, and ecological restoration (to be initiated through the Marinelli Fund where feasible). These lands include large blocks of native habitat where panthers have been documented extensively (Maehr 1990; USFWS 2002a; FPPP Technical Review Team [FPPPTRT] 2009).

The Plan includes the following activities that are collectively designed to meet biological goals and objectives for the Covered Species within the HCP Area:

- **Extensive, Contiguous Land Preservation.** The primary ecological benefit of the Plan is the designation of approximately 107,000 acres of contiguous lands for Preservation/Plan-Wide Activities and Very Low Density Use by Plan completion. These vast interconnected lands support the Florida panther as the Plan's major "focal species" (Beier 2010), as well as the other Covered Species. The approximately 107,000 acres of contiguous lands contain an ecologically valuable landscape-scale mosaic of native habitats and agricultural land uses that are utilized by the Florida panther and the other Covered Species. The preservation of these lands, which include two existing regional wildlife corridors – the Camp Keais Strand and Okaloacoochee Slough flowways – has been a goal of conservationists dating back several decades, and a goal identified specifically with respect to the panther since the 1980s (Belden et al. 1988; Maehr 1990; Logan et al. 1993). The Plan will prevent impacts that would have resulted from more intensive uses or development of the land designated for Preservation/Plan-Wide Activities and Very Low Density Use; preserve large, interconnected blocks of panther habitat; and minimize potential impacts of future development by concentrating and directing that development toward existing development and previously cleared areas in the western portions of the HCP Area, in the area designated for Covered Activities.

  As residential/commercial and earth-mining activities are approved and implemented in the area designated for Covered Activities, commensurate acreages within the lands designated for Preservation/Plan-Wide Activities and Very Low Density Use will be placed under conservation easements to compensate for permitted impacts. A summary of the current acreage of various

types of land cover and land use within the approximately 107,000-acre area that will be designated for Preservation/Plan-Wide Activities and Very Low Density Use is provided in Table 3-1, and depicted in Figure 3-4 (see Chapter 3, Environmental Setting). These phased land preservation activities will be augmented by the land management, mitigation, and monitoring activities described below, which will preserve and enhance the ecological function of these lands.

- **Management of Preserved Lands.** The lands designated for Preservation/Plan-Wide Activities and Very Low Density Use will be managed to preserve their existing ecological functions. Many of the activities that already occur within the lands designated for Preservation/Plan-Wide Activities, such as exotic and nuisance species control and pasture management, will benefit some or all of the Covered Species.

  The management activities that may occur within areas designated for Preservation/Plan-Wide Activities and Very Low Density Use in native habitat areas include, but are not limited to: exotic and nuisance species control; prescribed burning; mechanical control of excessive forest understory/fuel loads; tree thinning to improve native forest productivity; mechanical, hydrologic, and/or chemical control of vegetation to improve community structure and/or plant species diversity; construction and maintenance of surface water management structures for preservation or enhancement of existing/natural hydrologic function; scouting and monitoring of lands on foot, horseback, or by vehicle.

  The management activities that may occur within areas designated for Preservation/Plan-Wide Activities and Very Low Density Use in areas with non-native land cover types (predominantly agricultural fields and pastures) include a subset of the activities as listed above: crop cultivation; ranching/livestock operations; forestry and silvicultural operations; and exotic and nuisance species control. Collectively, these predominantly agricultural management activities will preserve the ecological functions of the area by maintaining healthy agro-ecosystems, controlling invasive species, and providing varying degrees of direct habitat support to some or all of the Covered Species.

- **Mitigation and Monitoring.** The designation of these lands for Preservation/Plan-Wide Activities and Very Low Density Use provides an effective framework for the implementation of systematic (rather than *ad-hoc*) mitigation and monitoring activities within the HCP Area. The Plan will restrict residential/commercial development activities and earth mining (Section 2.3) to areas designated for Covered Activities, which are largely previously cleared or otherwise disturbed areas with little native panther habitat and little habitat connectivity. Potential impacts to the Florida panther and the other Covered Species will be covered under ITPs issued to the applicants, which will provide for appropriate levels of mitigation and subsequent monitoring. Consistent with the RLSP, and as specified by USFWS under the ITPs, mitigation will be provided by placing conservation easements on lands designated for Preservation/Plan-Wide Activities as development in the area designated for Covered Activities occurs. Monitoring will be conducted to verify mitigation compliance.

Additional mitigation activities may include: wildlife mitigation activities designed to benefit one or more of the Covered Species, in coordination with USFWS and/or FWC; and wetland mitigation activities required by Federal and/or State resource agencies, including the U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (USEPA), South Florida Water Management District (SFWMD), and Florida Department of Environmental Protection (FDEP).

Wildlife mitigation activities may include habitat enhancement (invasive species control, prescribed burning, supplemental planting, etc.); hydrologic enhancement (increasing/decreasing seasonal high water to influence community composition); surface water management for species-specific requirements (e.g., northern caracara, wood stork, Everglade snail kite); and wetland creation, restoration, and/or enhancement.

- **Preservation of Existing Panther Movement Corridors.** Several planning and conservation efforts have identified the potential benefit of creating and/or enhancing wildlife movement corridors within Southwest Florida and eastern Collier County (Collier County 2009; FPPPTRT 2009; Small et al. 2012). As part of a comprehensive mitigation program, the Plan sets aside lands designated for Preservation/Plan-Wide Activities and Very Low Density Use that will allow for preservation of these corridors, which link large blocks of preserved habitat within and beyond the HCP Area. As depicted schematically in Small et al. (2012), setting aside these lands will allow for the enhancement of two corridors within the HCP Area: one corridor linking the Corkscrew Marsh system with the Okaloacoochee Slough system ("North" corridor); and another corridor linking habitats just east of SR 29 to the middle portions of the Okaloacoochee Slough ("South" corridor) (See Chapter 4, Florida Panther, and Figure 4-9). The Marinelli Fund could be used to fund activities to enhance the utility of these corridors through the planting of native vegetation used as cover by the panther and other Covered Species. Additionally, where these panther movement corridors intersect roadways, the Marinelli Fund could be used to fund activities to arrange for construction of fenced wildlife crossings to ensure safe passage of panthers and other wildlife through the landscape.

2.3 ACTIVITIES COVERED BY INCIDENTAL TAKE PERMIT

The Plan proposes two general categories of Covered Activities that will be conducted by or under the direction or control of the applicants: (i) residential/commercial development and (ii) earth mining. Upon full implementation of the Plan, including full build-out of the 45,000 acres of land designated for Covered Activities, the areas that will be designated for Preservation/Plan-Wide Activities and Very Low Density Use will encompass approximately 107,000 acres within the HCP Area, with the land permanently protected under conservation easements. The land utilized for Covered Activities will be capped at a maximum combined total of 45,000 acres, but as indicated above, the maximum combined total attributable to the ITPs will be less than 40,000 acres due to the inclusion of the Town of Ave Maria.

The applicants are seeking authorization for incidental take of the Covered Species resulting from Covered Activities conducted by or on behalf of the applicants, their lessees, their contractors, and/or

holders of Certificates of Inclusion,[2] that may occur within the pre-defined "Covered Activities" land designation areas within the HCP Area (Figure 2-1). The applicants request that ITPs be issued to the Plan applicants at the conclusion of Plan development. Any other activities that may potentially affect federally-listed species are not covered by the Plan.[3]

As shown in Figures 2-1 and 2-2, and summarized in Table 2-1, the Plan will accommodate up to a maximum of 45,000 acres of residential/commercial development and earth mining, in areas largely already cleared for agriculture that have low qualities of native habitat and little or no native habitat connectivity. The Town of Ave Maria (5,027 acres) will be included in this 45,000-acre cap.[4] The Covered Activities will be phased over the 50-year duration of the ITPs. Prior to the conversion of a given tract within the "Covered Activities" areas designated for development and/or earth mining activities (Figure 2-1), pre-existing activities (Section 2.2) can continue to occur. At any given time during the 50-year ITP duration, the total area designated for development will be a mix of agricultural lands, earth mining, and residential/commercial development, but at no time will the combined acreage of residential/commercial development and earth mining within the area designated for Covered Activities exceed 45,000 acres. The residential/commercial development and earth mining activities included in the Plan, for which incidental take authorization is requested, are described in the following bulleted paragraphs.

- **Residential/Commercial Development.** These activities include the planning, design, permitting, and construction of mixed-use residential communities and associated commercial facilities, along with infrastructure internal to the development footprint necessary to support these activities. Land uses within these developments may include, but are not limited to: single-family housing; multi-unit housing; public and private institutional facilities; commercial space; office space; retail establishments; surface water management; internal roadways; utilities; open space (e.g., parks, landscaping buffers, lakes); and other elements typical of mixed-use developments. Wherever feasible, developments will employ environmentally friendly planning

[2] See section 2.4, below.

[3] For example, the ITPs will not authorize or control incidental take resulting from activities of third parties (*e.g.*, actions that are not conducted by or on behalf of the applicants), such as panther-vehicle collisions on external roadways. Panther-vehicle collisions are not expected during construction and maintenance of roads internal to development areas permitted under the ITPs, based on factors such as the low speed of travel on these roads and relatively lower likelihood of panthers crossing roads, and therefore any such collisions, and any other panther strikes on these internal roads will not be covered. In addition, the ITPs will not cover panther strikes on any other roadways within the HCP Area (whether public or private). For example, roadway improvements conducted as part of county and/or State programs are not covered by the Plan, including pursuant to any current or future Long-Range Transportation Plans (LRTPs) developed by the Collier County Metropolitan Planning Organization (MPO).

[4] As described in Chapter 1, there are two parcels of land located within the RLSA (and the outer boundaries of the HCP Area) – the Hogan Island Quarry and the Immokalee Sand Mine – that are owned by ECPO members but are not included in the HCP Area or as Covered Activities because the Federal permitting process for each, including Section 7 consultations, is either already complete or is expected to be complete by the time the ITPs are issued. These two parcels are accounted for in the overall configuration and planning for wildlife corridors and other ecologically beneficial features of the Plan.

and designs, such as clustering, low-impact development, water reuse techniques, and greenspace buffers. These activities are subject to local, State, and Federal regulatory programs related to the establishment and operation of residential/commercial developments.

- **Earth Mining.** These activities include the planning, design, permitting, construction, operation, and decommissioning of surface earth mines. Within the area designated for Covered Activities, the earth materials extracted will be soil, sand, limestone, and similar earth materials used for construction fill, roadway fill, landscaping, and similar uses. Earth mines may occur as a prelude to future land uses, such as development, or may occur as an end-use. Permitting and regulation of earth mining activities is administered by USACE, FDEP, and Collier County.

In addition, lands designated as Plan-Wide/Preservation and Very Low Density Use will require periodic land management in perpetuity to maintain or improve habitat functions; maintain agriculture operations; maintain drainage infrastructure; control exotic vegetation; and control pests and diseases. Under the Plan, these activities include land management techniques such as prescribed burning; mechanical control of groundcover (e.g., roller chopping, brush-hogging, mowing); ditch and canal maintenance; mechanical and/or chemical control of exotic vegetation; soil tillage; and similar activities that maintain or improve land quality. The applicants also seek take coverage for these activities.

2.4 CERTIFICATES OF INCLUSION HOLDERS AND LESSEES

The permit applicants seek incidental take authorization for the Covered Activities, up to a maximum footprint of 45,000 acres, which will occur within the 50,175-acre area designated for Covered Activities on Figure 2-1. This incidental take authorization will extend to the applicants' subsidiaries, employees, lessees, and contractors, and other parties carrying out otherwise lawful activities conducted under the direction of the applicants and in compliance with the terms of the ITPs.

Although the applicants (ECPO members) own the entirety of the 151,779± acres within the HCP Area, non-ECPO private property owners hold over 20,000 acres of land (as calculated from the Collier County Property Appraiser database) within the RLSP area where the Plan is set. Figure 2-1 depicts these non-ECPO private property holdings as "Eligible for HCP Inclusion" within RLSP boundary. Some of these non-ECPO lands possess conservation value that could augment the conservation benefits provided by the Plan, should the current or future non-ECPO property owners choose to add some or all of their land to the Plan.

Given the 50-year duration of the ITPs, the intent of this Plan element is to provide additional flexibility in implementing the Plan, while adhering to the 45,000-acre limit for Covered Activities and without changing the areas within which the Covered Activities may occur. The goal is to recognize the possibility that future land transfers, purchases of new conservation lands, conservation incentives, or other mechanisms may provide new opportunities for enhancing the Plan, especially for the Florida panther.

Programmatic HCPs, such as those implemented by counties or states, often include a mechanism for non-participating property owners to participate in an HCP after issuance of the ITP. The reason for doing this is to facilitate the assembly of a wider and/or more complete conservation area and

comprehensively address activities within the area to the extent practicable. In such cases, a "Certificate of Inclusion" may be issued, which conveys the incidental take authorization to the new participant, while maintaining the take limitations and conservation requirements of the ITP.

At least one private-sector HCP – the Tehachapi Uplands Multiple Species Habitat Conservation Plan – has utilized this mechanism. The permit applicants recognize the potential benefits of such an approach for augmenting the Plan, and also for providing flexibility in responding to changed or unforeseen circumstances. The use of "Certificates of Inclusion" would not result in any increased take, reduce the conservation benefits specified in the ITP, or result in changes to the extent or location of Covered Activities, but would provide a means for flexibly enhancing the Plan.

2.5 BASE ZONING AREA

Figure 2-1 depicts a "Base Zoning" area on 2,431 acres of the Half Circle L Ranch, east of Immokalee. The 2,431 acres represents an RLSP "Open" overlay area, where either development or preservation could occur under RLSP regulations, and where base zoning (1 dwelling unit per 5 acres) under the Collier County Land Development Code applies. As of this writing, the Half Circle L Ranch is for sale on the open market. Although the current property owner is a member of the FPPP and an applicant for an ITP, it is not known whether the property will be sold before the HCP/ITP process is concluded, or what land designation would be applied to the 2,431 acres in the event of a sale.

The status of this property is expected to be resolved during the timeframe for USFWS review of the HCP document, completion of the NEPA process, and processing of the ITP applications. For the purposes of this draft of the HCP document, the Base Zoning area is simply identified, and counts neither as land designated for Covered Activities, or for Preservation/Plan-Wide Activities or Very Low Density Use. Should the current or future owner choose not to develop the area, it will be included in the Plan as land designated for Preservation/Plan-Wide Activities. Should the current or future owner develop the area at base zoning or higher densities, the development footprint will be included under the 45,000-acre cap for Covered Activities, and 2,431 acres that would have otherwise been designated for Covered Activities will be included in the area designated for Preservation/Plan-Wide Activities.

2.6 OTHER TAKE AVOIDANCE AND MINIMIZATION MEASURES

The primary avoidance and minimization measure for potential impacts to the Florida panther and other Covered Species is the designation of approximately 107,000 acres of contiguous lands for Preservation/Plan-Wide Activities and Very Low Density Use (Figure 2-1). Within the 45,000 acres proposed for Covered Activities, multiple avoidance and minimization measures will be implemented at project-level scales as part of project planning, design, permitting, and construction. The Plan's direction of development toward less ecologically valuable, previously cleared areas, and preservation of more ecologically valuable contiguous areas of land, serves as a significant avoidance and minimization strategy. Other project-level avoidance and minimization measures for the Covered Species are described in Chapter 4 (Florida Panther) and Chapter 7 (Conservation Plan for Other Covered Species).

2.7 OTHER PLAN ELEMENTS

A major benefit of the Plan is the opportunity for coordination with the FPPP (see Chapters 1 and 9). The FPPP is a collaborative effort among the applicants and several major environmental groups to assist in the conservation and recovery of the Florida panther. A central component of the FPPP is the establishment of the Marinelli Fund, which will be governed by its own board of directors, and will be funded by the Plan.

The Fund will be underwritten by (i) contributions to be made on a per-acre basis as Covered Activities are initiated and (ii) transfer fees to be paid on a per-unit basis as homes within the HCP Area are sold and re-sold (see Chapter 9 for more detail). In addition to possible enhancement of the North and South Corridors (described above), the Marinelli Fund may be used for a variety of conservation activities that assist with panther recovery, such as design and construction of wildlife underpasses under and fencing along roadways to prevent wildlife-vehicle collisions; panther habitat acquisition, management, restoration and/or enhancement; and other activities that are consistent with the FPPP goals; the Fund may also be used to benefit the other Covered Species (Chapter 9).

The Plan also identifies the potential for changed and unforeseen circumstances (see Chapter 8). Examples of reasonably foreseeable changed circumstances include the potential impacts of hurricanes; wildfires; pests, and diseases affecting Covered Species and/or their habitats; effects of climate change; and new listings of species not covered by the Plan. The Plan also incorporates measures for responding to changed circumstances that may impact one or more Plan elements. Under USFWS's "No Surprises" rule, permittees are not required to provide additional resources or funds to address unforeseen circumstances.

The Plan identifies alternatives to the issuance of the ITPs as proposed under the Plan, and explains why the other alternatives were not selected (see Chapter 10, Alternatives).

The detailed provisions for implementing this Plan will be incorporated into the permits or IA. The IA (if applicable) and/or the permits will specify the mutual obligations of the applicants and USFWS for executing the Plan elements, and for carrying out the Plan in accordance with the terms of the ITPs and Federal regulations.

Revised Chapters 1 & 2 Comments
Ken McDonald
11/30/2017

1) Expand Section 1.3 to include contact information for representatives of each applicant. If ECPO will continue to represent the applicants throughout the lifespan of the HCP, designate them as such and additionally provide relevant contact information for the ECPO designated representative in this section. Ensure someone picking up this HCP knows exactly how to contact the individual(s) participating in the HCP and administering it. Consider moving this section to the front of Chapter 1.
2) Move discussion of Covered Species conservation and recovery histories from Chapter 1 to the appropriate species chapters.
3) After the applicants and their representatives have been identified, introduce the activities and species for which an ITP is sought. Call this Section "Purpose of the HCP."
    a. Bring the description of Covered Activities from Chapter 2 to Chapter 1
        i) Where applicants retain a governance role in any future commercial developments, residential developments, or earth mining activities add "facilities/properties management" to the list of Covered Activities.
        ii) Remember to include conservation actions in the list of Covered Activities (example, those being implemented for Rural Lands West). *Note: Very Low Density Use" might qualify as a minimization measure ONLY IF it is being implemented as an alternative to more intense development that would otherwise occur. If more intensive development is not being considered for "Very Low Density Use" locations, these need to be described as a Covered Activity.
        iii) Describe the manner of takings for each Covered Activity (e.g. "harm & harassment" or any other manner of taking likely to occur relative to each covered activity).
        iv) Describe features common to activities that makes them different than what would be pursued without an HCP (a change in housing density from base zoning, trip-capture within communities, reduction of water consumption relative to present etc).
        v) Summarize how the aggregate of Covered Activities will impact Covered Species without mitigation.
    b. Describe the FULL Regulatory Environment in which these impacts will occur (local, state, and federal). Provide a table listing all laws and regulations (local, state, and federal) applicants must adhere to in order to engage in Covered Activities. Provide a separate table listing all of the permits required for applicants to engage in Covered Activities.
    c. Identify which of these laws and regulations are satisfied by compilation of the HCP and implementation of the measures contained within it.
    d. Broadly describe the desired end state for Covered Species (e.g. "no-net loss", "net gain" etc).
4) See Figure 9.1e on page 9-5 of the HCP handbook for guidance on how to describe biological goals for the HCP, and break down biological goals and measures hierarchically.
    a. Chapter 1 describes the "Purpose of the HCP." Some of the purpose is described in Chapter 1, but the presentation of it gives one the impression it's a sales pitch rather than a description (There's some text dedicated to Chapter 2 describing "Regional or Landscape Goals", "Vision for HCP Program", and "HCP Goals", but these should be more explicitly identified in the text- consider naming chapters after these and putting in the appropriate information). Chapters describing impacts to species should have sections titled "HCP Objectives", "HCP Measures", and "Monitoring Goals" for each species.

TBD 2018

Meeting between USFWS and Conservancy of Southwest Florida

DRAFT Agenda

- Florida panther issues:
  - Eastern Collier Habitat Conservation Plan, Rural Lands West development
  - Recovery Implementation Team – Recovery criteria and landowner incentive programs
    - Panther general conservation permit/ Safe Harbor
  - Panther regulatory framework updates
  - 5 Year Status Update and Species Status Assessment

- Individual projects:
  - Mining
    - FFD Mine (Lee County)
    - Old Corkscrew Plantation (Lee County)
    - Troyer Brothers Mine (Lee County)
    - Lost Grove Mine (Collier County)
    - Immokalee Sand Mine (Collier County)
    - Keri Road Sand Mine (Hendry County)
  - Developments
    - Corkscrew Crossing development (Lee County)
    - Eden Oak (Lee County)
    - Verdana (Lee County)
    - Pepperland (Lee County)
    - Timbercreek (Lee County)
  - Energy and oil & gas exploration
    - FPL Power Plant (Hendry County)
    - Big Cypress National Preserve Burnett seismic survey (Collier County)
  - Transportation
    - SR29 widening
    - Wilson-Benfield road
    - I-75 interchange in the vicinity of Everglades Blvd.
  - Mitigation Banks
    - Proposed panther compensation banks
  - Other Habitat Conservation Plans
    - Follow up on Charlotte County HCP implementation

- Other
  - Caracara regulatory framework tool and survey protocol update
  - Bonneted Bat protocol and critical habitat designation
  - Section 6 Delegation – Indigo Snake Guidelines
  - New mitigation/conservation bank policy

DRAFT

From:	Mcdonald, Kenneth
To:	Johnson, Bruce
Cc:	Cassler, Constance; Kelso, Charles
Subject:	Chapters 1& 2 Comments & Suggestions
Date:	Friday, December 8, 2017 10:37:12 AM
Attachments:	ECMSHCP_Chapter_1_submitted_20171024_KenComments.pdf ECMSHCP_Chapter_2_submitted_20171024_KenComments.pdf Ken Comments.docx
Importance:	High

Hey Bruce,

Attached are my comments and suggestions for Chapters 1&2. I didn't see anything in Chapter 3 that needed any further work, in my opinion it's fine as it is. This is the applicants' document, but I think there are things that can be done in chapters 1& 2 to make it more useful to them and more clear to us, though.

Ken

--

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NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

Energy and persistence will conquer all things

- Benjamin Franklin

1. INTRODUCTION AND BACKGROUND

1.1 OVERVIEW/BACKGROUND

Southwest Florida encompasses a variety of urban, agricultural, and natural landscapes that support, among other things, residential, commercial, and public activities, food production, recreation, natural ecosystem functions, and wildlife. Collier County, located west of the Everglades and south of the Caloosahatchee River (Figure 1-1), has experienced rapid human population growth over the past several decades, while simultaneously witnessing the dedication of vast expanses of natural areas to conservation as State and Federal lands. Over two-thirds of Collier County's land area is currently in conservation status, with over 877,000 of the county's 1,300,000 acres protected (FNAI 2014a).

The Federal preserves within Collier County include the Big Cypress National Preserve (BCNP), the Florida Panther National Wildlife Refuge (FPNWR), the Ten Thousand Islands National Wildlife Refuge (TTINWR), and the western coastal portions of Everglades National Park (ENP). State conservation lands within the County include the Fakahatchee Strand State Preserve (FSSP), the Picayune Strand State Forest (PSSF), the Okaloacoochee Slough State Forest (OSSF), and extensive portions of the Corkscrew Regional Ecosystem Watershed (CREW). In addition, the National Audubon Society maintains approximately 13,000 acres of conservation lands in Collier County, comprised of the Corkscrew Swamp Sanctuary and nearby lands.

These Federal and State preserves were generally established to protect vast tracts of Southwest Florida's diverse natural ecosystems, which harbor a wide variety of plants and wildlife, including many species listed as endangered or threatened under the Endangered Species Act, 16 U.S.C. §§ 1531 *et seq*. (ESA or Act), protected by the State of Florida, or both. Among these listed species, the Florida panther (*Puma concolor coryi*) represents a major "focal species," meaning that conservation activities directed toward conserving the panther also promote multiple aspects of regional biodiversity conservation (Lambeck 1997; Noss 2007). The public conservation lands within Collier County protect many species that have limited localized distributions, home ranges, and/or dispersal distances (e.g., red-cockaded woodpeckers; rare orchids; Big Cypress fox squirrels), but the Florida panther utilizes habitats and establishes home ranges on a landscape scale that extends well beyond the boundaries of the existing public conservation lands.

The role of private lands for sustaining the Florida panther has been addressed repeatedly in the scientific literature for over 25 years (e.g., Belden et al. 1988; Maehr 1990; Logan et al. 1993; Main et al. 1999; Beier 2009). Beier et al. (2003; 142) stated "it is certainly true that private lands are essential to security of this population, and that conserving these lands *will require active support* from water management districts, Seminoles, and private landowners." (italics added.) The most recent panther annual monitoring report (FWC 2016, p. 15) stated that "[c]onserving panther habitat on private lands is essential for advancing panther recovery throughout its range." Scientific literature on the panther contains numerous discussions related to the development and implementation of private-landowner incentives for preserving and maintaining panther habitat as a valuable tool that is needed to complement public land acquisition and management (Logan et al. 1993; Evans 1994; Maehr 1997;

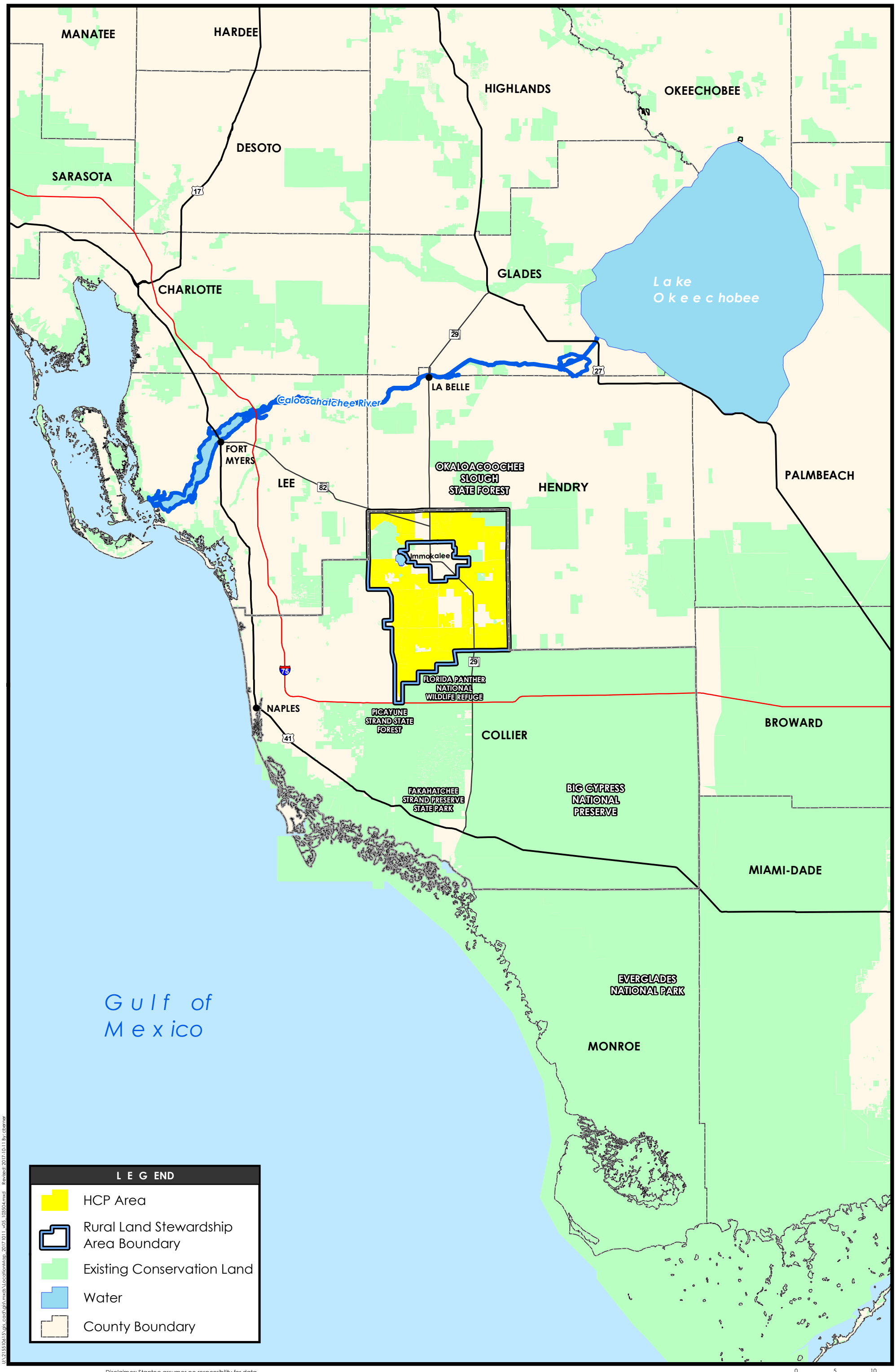

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FIGURE 1-1

Eastern Collier MSHCP Location Map

November 2017

Stantec Consulting Services Inc.
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Naples, FL 34108
tel 239.649.4040
fax 239.263.6449

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Kreye and Pienaar 2015). However, to date, the types of incentives offered to private landowners, and the conservation funding available to State and Federal agencies to consistently engage private landowners, have been limited and largely ineffective.

Since 1981, State and Federal wildlife biologists have captured over 243 Florida panthers in Southwest Florida, and fitted them with radiotelemetry collars and, more recently, geographic positioning system (GPS) collars (FWC 2016). The location data provided by these collared panthers have helped to define the "core population area" for the species (USFWS 2002a, Figure 37) and general patterns of habitat utilization throughout the panther's range (see Section 4, Florida Panther). While the majority of the core population area lands are currently protected within public conservation lands, including the BCNP, FPNWR, and FSSP, sizable portions of the core population area extend onto private lands in eastern Collier County and southern Hendry County that adjoin these public lands. The panther radiotelemetry and GPS data also reveal regular utilization of native habitats within two regional flowway systems in eastern Collier County (Okaloacoochee Slough and Camp Keais Strand), and sporadic utilization of extensive nearby agricultural areas.

Scientific literature on the Florida panther indicates that existing public conservation lands alone are insufficient for viable long-term conservation of the Florida panther's core population (USFWS 2002a; Kautz et al. 2006). There is broad-based agreement among Federal and State wildlife biologists, academic conservation researchers, a variety of non-governmental organizations (NGOs), and a group of rural property owners, that the engagement and active support of private landowners is essential to landscape-scale conservation efforts designed to address the panther's ecological needs.

Given the potential for privately-held native habitats within eastern Collier County to benefit the conservation of the Florida panther, a Habitat Conservation Plan (HCP) can provide a valuable mechanism for achieving permanent protection of the landscape-scale features that support panther ecology. The proposed HCP would also provide conservation benefits for other species that occur within the lands proposed to be covered by the HCP.

The U.S. Fish & Wildlife Service's (USFWS) "Habitat Conservation Planning and Incidental Take Permit Processing Handbook" (USFWS and NMFS 2016, hereinafter "HCP Handbook," at 1-2) speaks to the type of situation that exists in eastern Collier County, and advocates striking a balance between agriculture, economic development, and species conservation:

> Congress intended the HCP program to address listed and at-risk species in an ecosystem context, generate long-term commitments to conserve such species, and deliver regulatory assurances to project proponents. Congress also envisioned the HCP program as an opportunity to establish "creative partnerships" between the public and private sectors and State, municipal, and Federal agencies to conserve endangered and threatened species and their habitats (H.R. Rep. No. 97-835 (1982)). . .. Congress intended the HCP program to function not only to authorize incidental take, but also as a process to integrate non-Federal development and land-use activities with conservation goals, resolve conflicts between protection of listed species and economic activities on non-Federal lands, and create a climate of partnership and cooperation.

> In that spirit, the Services should encourage permit applicants and partners to use Congress' intent as the foundation for working together to develop an HCP. Collaboration, flexibility, ingenuity, innovation, and thoughtful planning are key to developing effective HCPs and resolving complex and controversial issues that may arise.

Indeed, the HCP Handbook notes that "[a]lthough some listed species are located on wildlife refuges, national parks, military bases, and other Federal lands, the majority of them are on non-federal lands[, and for that reason,] [t]he Services and other Federal agencies cannot recover those listed species alone." (HCP Handbook at 2-5.) The benefits of protecting private lands in eastern Collier County for the Florida panther are well documented (see Beier et al. 2003 for a literature review), and this HCP represents a viable means for achieving permanent protection of native panther habitats. Thus, the purpose of this HCP is to create a long-term balance among the complementary goals of environmental preservation, species protection, continued agricultural use of lands, and economic development. The Plan will achieve these goals through a combination of economic incentives and regulatory mechanisms, and will provide a balanced, sustainable future for the region. Because multiple species in eastern Collier County will be covered by this HCP, the plan is named the Eastern Collier Multiple Species Habitat Conservation Plan (ECMSHCP, or the Plan).

1.2 THE EASTERN COLLIER MULTIPLE SPECIES HABITAT CONSERVATION PLAN

This Plan provides a detailed, long-term, science-based methodology for the permanent protection of habitats for the endangered Florida panther and other species within the lands proposed to be covered by the HCP, referred to herein as the HCP Area (depicted in Figure 2-1, *infra*). The Plan is required to support the applications submitted by several Collier County landowners for Incidental Take Permits (ITPs) under Section 10(a)(1)(B) of the ESA. 16 U.S.C. § 1539(a)(1)(B).[1] The Plan provides a long-term (50-year) conservation and land-use planning framework for 151,779± acres[2] in Southwest Florida (Figure 1-1).

The eastern portions of Collier County comprise a variety of land uses, including, among other things, crop production, ranching, native vegetation communities, urban areas, and public lands (see Section 3, Environmental Setting). The ultimate planning goal for this region is to ensure a long-term compatible balance of conservation, continued agricultural land use, and economic development that contributes to the protection, survival, and recovery of the species covered by the Plan.

This Plan arose from a collaborative effort among property owners in eastern Collier County, NGOs, and Federal and State wildlife agencies, to address long-term planning issues related to the conservation of the Florida panther. As explained above, the landscape-scale mosaic of habitats that support the Florida panther also support many other federal and state-listed species, allowing for a multi-species approach

[1] Citations hereinafter are only to the Act.

[2] For the purpose of this Plan document, geographic information system (GIS) acreages are the best currently available estimates. Precise acreages will be determined during ITP processing.

for the Plan and ITPs. The Plan emphasizes the preservation of large expanses of native panther habitats, in a way that maintains landscape-scale habitat connectivity and facilitates panther utilization and movement.

The Plan covers eight federally-listed species: five avian species, one reptile species, and two mammal species. The Plan also covers three species – the gopher tortoise, eastern diamondback rattlesnake, and gopher frog – that are being considered for listing but are not currently federally-listed. The gopher tortoise is currently designated as candidate species for federal listing within its Florida range; the eastern diamondback rattlesnake and gopher frog are currently proposed for federal listing. The Plan also covers eight other non-federally-listed species that are currently listed as threatened by the State of Florida. All species to be covered by the Plan are included, along with their listing status, in Tables 1-1, 1-2, and 1-3, below (the Covered Species).

Table 1-1. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: federally-listed species.

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS[1]
BIRDS		
Florida scrub jay	*Aphelocoma coerulescens*	T
Northern crested caracara	*Caracara cheriway*	T
Wood stork	*Mycteria americana*	T
Red-cockaded woodpecker	*Picoides borealis*	E
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	E
REPTILES		
Eastern indigo snake	*Drymarchon corais couperi*	T
MAMMALS		
Florida bonneted bat	*Eumops floridanus*	E
Florida panther	*Puma concolor coryi*	E

[1] Federal status abbreviations (as of Aug. 2017): T -Threatened; E – Endangered

Table 1-2. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: candidate species and species under review for Federal listing.

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS[1]
REPTILES		
Gopher tortoise	*Gopherus polyphemus*	C
Eastern diamondback rattlesnake	*Crotalus adamanteus*	Under Review
Gopher frog	*Lithobates capito*	Under review

[1] Federal status abbreviations (as of Aug. 2017): C- Candidate species for federal listing; the gopher tortoise is also listed as Threatened by the State of Florida.

Table 1-3. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: species listed by the State of Florida.

COMMON NAME	SCIENTIFIC NAME	STATE STATUS[1]
BIRDS		
Burrowing owl	*Athene cunicularia*	T
Florida sandhill crane	*Antigone canadensis pratensis*	T
Little blue heron	*Egretta caerulea*	T
Roseate spoonbill	*Platalea ajaja*	T
Southeastern American kestrel	*Falco sparverius paulus*	T
Tricolored heron	*Egretta tricolor*	T
MAMMALS		
Big Cypress fox squirrel	*Sciurus niger avicennia*	T
Everglades mink	*Neovison vison evergladensis*	T

[1] State status abbreviations (as Aug. 2017): T –Threatened

The USFWS (2002) characterized the long-acknowledged role of private lands for Florida panther conservation as follows:

> Regional conservation planning also recognizes the importance of the ecological interactions among native ecosystems, agricultural areas, and developed lands and attempts to design conservation areas and strategies that maximize compatibility and effectively conserve natural resources including biodiversity and important ecosystem processes.
>
> A regional landscape strategy for the Florida panther in south Florida is dependent on two complementary aspects: science-based management of existing and potential future public lands consistent with panther conservation, and cooperation with private landowners that currently manage thousands of acres of panther habitat (Maehr 1990).

Ultimately, the Plan and ITPs allow participating property owners to plan and coordinate future permitted activities within defined areas in the HCP Area (the areas designated for Covered Activities, depicted on Figure 2-1, *infra*), enabling integrated and more effective conservation planning, avoiding piecemeal development scenarios, supporting effective long-term cumulative impact analyses, and simplifying future individual consultations between the USFWS and other Federal agencies. These goals are consistent with the longstanding consensus that private lands constitute a key component for successful Florida panther conservation, and that the active cooperation of private property owners is an essential component.

1.3 PERMIT APPLICANTS AND PERMIT DURATION

The ITP applicants are a group of landowners known as the Eastern Collier Property Owners (ECPO). Collectively, ECPO members own approximately 90 percent of the private land within eastern Collier County (see Section 1.7 and Figure 2-1), as well as other lands in South and Central Florida outside the eastern Collier County area. The ECPO applicants and eventual permit holders would be (in alphabetical order): Alico, Inc.; Barron Collier Investment, Ltd.; Collier Enterprises Management, Inc.; Consolidated Citrus Limited Partnership; English Brothers Partnership; Half Circle L Ranch, LLP; Heller Bros. Packing Corp.; John E. Price, Jr. Trust; Pacific Land, Ltd.; and Sunniland Family Limited Partnership.

The duration of the ITPs will be 50 years. This is the time period necessary to complete planned and/or foreseeable permitted activities within the portion of the HCP Area designated for Covered Activities, and to fully enact conservation provisions associated with the Plan elements and ITP conditions.

1.4 PERMIT BOUNDARY/HCP AREA

The HCP Area is located in the northeastern corner of Collier County, and surrounds the Town of Immokalee (Figure 1-1). The HCP Area is located within the boundaries of the RLSA (see Figure 2-1), and comprises approximately 151,779 acres of lands owned by the applicants, which do not include existing or future County and State roads within eastern Collier County. Over 20,000 acres of non-ECPO private property are located within the RLSA. Because the applicants do not own these lands, they are outside the HCP Area. These non-ECPO lands may later be voluntarily incorporated into the Plan through

Certificates of Inclusion, and are therefore depicted in Figure 2-1 as lands "Eligible for HCP Inclusion (Non-ECPO Lands)" (see Section 2.4). The major existing and traditional land uses and land cover within the HCP Area include agriculture, ranching, native vegetation communities, residential and commercial development, and earth mining.

As shown on Figure 1-1, the HCP Area borders the FPNWR and BCNP to the south, public conservation lands that support the core population area for the Florida panther. The HCP Area also borders the OSSF to the north and east, which is heavily utilized by panthers and serves as a landscape linkage in a panther dispersal corridor leading to the Caloosahatchee River and then northward into Central Florida. To the west are the privately owned 13,000-acre Audubon Corkscrew Swamp Sanctuary, which harbors the largest breeding colony of threatened wood storks in South Florida, and the publicly-owned CREW conservation lands. The HCP Area therefore occupies a strategic area that, if properly planned and managed, can function as an area of increased value to the Florida panther and other species, featuring important, landscape-scale habitat linkages ("critical linkages") in perpetuity (Oetting et al. 2014). The avoidance, minimization, mitigation, and management actions proposed in the Plan and specified in the ITPs would promote and maintain these linkages.

The approximately 151,779-acre HCP Area – all of which is owned by ECPO members – occupies approximately 90 percent of the private lands within eastern Collier County. As described in greater detail in Chapter 2, the Plan designates 50,175 acres of lands, primarily within previously-cleared agricultural areas, where up to 45,000 acres of Covered Activities may occur. The remaining approximately 107,000 acres, which include existing regional wildlife corridors that allow for wildlife movement among existing public conservation lands, will be permanently preserved under the Plan. Further enhancing the ratio of preserved areas to development, the 5,027-acre Town of Ave Maria will be included in the 45,000 acres where Covered Activities may occur, even though Federal permitting and Section 7 consultation has been completed for the Town of Ave Maria, reducing the maximum acreage of Covered Activities attributable to the ITPs to 39,973 acres. There are two parcels of land located within the RLSA (and the outer boundaries of the HCP Area) – the Hogan Island Quarry and the Immokalee Sand Mine – that are owned by ECPO members but are not included in the HCP Area or as Covered Activities because the Federal permitting process for each, including Section 7 consultations, is either already complete or is expected to be complete by the time the ITPs are issued (depicted in Figure 2-1 as "Prior Federal Permitting Initiated"). Nonetheless, these two parcels are accounted for in the overall configuration and planning for wildlife corridors and other ecologically beneficial features of the Plan.

1.5 SPECIES TO BE COVERED BY PERMIT

The federally-listed species to be covered under the ITPs are listed in Table 1-1. These species are included in the online USFWS database of federally-listed and candidate species for Collier County (Information for Planning and Consultation database at: https://ecos.fws.gov/ipac/location/index). A candidate species for federal listing in Florida, the gopher tortoise (*Gopherus polyphemus*), is also included in the Plan, along with two species that are proposed for federal listing, the eastern diamondback rattlesnake (*Crotalus adamanteus*) and the gopher frog (*Lithobates capito*) (Table 1-2).

Section 8.1.4 details the measures to be taken if, subsequent to issuance of the ITP, additional species become federally-listed within the HCP Area. Table 1-1 excludes those federally-listed species that occur exclusively in marine environments, coastal ecosystems (beaches, mangroves, nearshore environments), and other environments not present within the HCP Area. Only one plant species within Collier County is currently designated as a proposed species for listing – Florida prairie clover (*Dalea carthagenesis floridana*) – but the rocklands, costal uplands, and marl prairies that the plant inhabits are not found within the HCP Area. Therefore, no plant species are included in the Covered Species.

In addition to the federally-listed Covered Species, the Plan will cover eight species currently listed by the State of Florida as "Threatened" (Table 1-3), based on recent Biological Status Reviews performed by the Florida Fish and Wildlife Conservation Commission (FWC). All of the State-listed species in Table 1-3 will benefit directly from the Plan, because each of these species utilizes the same or similar habitat(s) as the federally-listed Covered Species. Given the large expanse of the areas designated under the Plan for Preservation/Plan-Wide Activities and Very Low Density Use (see Section 2, Plan Description), other game and non-game species that are not currently listed or recommended for listing by State or Federal agencies and that are not covered by the Plan – such as the Florida black bear – will also benefit from these conservation actions.

For the status, distribution, habitat utilization, and occurrence of each Covered Species within the HCP Area, please refer to Section 4 (Florida Panther) and Section 5 (Other Covered Species) of this document.

1.6 REGULATORY FRAMEWORK

1.6.1 Federal Endangered Species Act

Section 9 of the Act and Federal Regulations enacted pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." ESA § 3(19). Harm is further defined by the USFWS to include significant habitat modification or degradation that results in death or injury to listed species "by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Harass is defined as intentional or negligent actions that create the likelihood of injury to listed species by annoying them "to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering." Incidental take is defined as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." 50 CFR § 17.3.

Pursuant to section 11(a) and (b) of the Act, any person who knowingly violates section 9 of the Act or any permit, certificate, or regulation issued pursuant to section 9, may be subject to civil penalties of up to $25,000 for each violation or criminal penalties up to $50,000 and/or imprisonment of up to one year.

Individuals and State and local agencies proposing action that may result in the take of federally-listed species may apply for an ITP under section 10(a)(1)(B) of the Act to maintain compliance with the law. Such permits are issued by the USFWS when take is not intentional, and is incidental to otherwise legal activities. An application for an ITP must be accompanied by an HCP. Under section 10(a)(1)(B) of the

Act, the anticipated take to be authorized must be incidental, the applicant must "minimize and mitigate the impacts of" take "to the maximum extent practicable," the authorized take must not "appreciably reduce the likelihood of the survival and recovery of the species in the wild," and adequate funding for the plan must be ensured.

Section 7 of the Act requires Federal agencies to ensure that their actions, including issuing permits, are "not likely to jeopardize the continued existence of [federally-listed] species or result in the destruction or adverse modification of habitat of such species. ESA § 7(a)(2). "Jeopardize the continued existence of" pursuant to 50 CFR § 402.02, means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." Issuance of an incidental take permit under section 10(a)(1)(B) of the Act by the USFWS is a Federal action subject to section 7 of the Act. Under section 7, the USFWS is required to consult with itself (i.e., conduct an internal consultation), as well as other Federal agencies.

Under ESA section 7, cumulative effects are effects of future State or private actions that are reasonably certain to occur in the action area, which is defined by the influence of direct and indirect impacts of the Federal action.

1.6.2 The Section 10(a)(1)(B) Process: HCP Requirements and Guidelines

Although the Section 10(a)(1)(B) process is iterative and often non-linear, the process includes four primary phases: (1) pre-application; (2) development of the HCP and environmental compliance documents; (3) application processing, permit decision-making, and issuance of the ITP; and (4) the post-issuance phase, including implementation of the HCP and compliance monitoring. HCP Handbook at 2-1.

During the first phase, USFWS provides guidance to prospective applicants, and determines the level of analysis required under the National Environmental Policy Act (NEPA)based on the nature and scale of the HCP.

During the second phase, the applicant prepares a plan that integrates the proposed project or activity with the protection of listed species. An HCP submitted in support of an ITP application must include the following information:

- impacts likely to result from the proposed taking of the species for which permit coverage is requested;
- measures that will be implemented to monitor, minimize, and mitigate impacts; the funding that will be made available to undertake such measures; and the procedures to deal with unforeseen circumstances;
- a description of alternative actions that the applicant considered, and an explanation of why those alternatives were not selected; and

- additional measures USFWS may require as necessary or appropriate for purposes of the plan.

HCP Handbook at C-1. The HCP development phase concludes and the permit processing phase begins when a complete application package is submitted to the appropriate permit-issuing office. A complete application package consists of (i) a draft HCP, (ii) an Implementing Agreement (IA), if applicable, (iii) a permit application, and (iv) payment of a $100 fee by the applicant(s). HCP Handbook at 2-13. USFWS is required to publish a Notice of Availability of the HCP package in the Federal Register and allow for public comment. The USFWS also prepares an Intra-Service Section 7 Biological Opinion and a Set of Findings, which evaluates the Section 10(a)(1)(B) permit application in the context of permit issuance criteria (see below). An Environmental Action Statement, Environmental Assessment, or Environmental Impact Statement serves as the USFWS's record of compliance under NEPA, and is subject to public comment. As noted in the Executive Summary, USFWS published a notice of intent to prepare an EIS in the Federal Register in March 2016 (81 Fed. Reg. 16,200 (March 25, 2016)), held a public scoping meeting on April 12, 2016, and has begun drafting an EIS analyzing the proposed ITPs.

During the third phase, USFWS oversees the public review process and undertakes decision-making. This phase includes development by USFWS of a document that describes USFWS's findings and provides a basis for USFWS's permitting decision. The third phase ends with USFWS's permit issuance decision. Pursuant to ESA § 10(a)(1)(B), USFWS will issue an ITP if the following statutory criteria for issuance of the permit are met:

- the taking will be incidental;
- the impacts of incidental take will be minimized and mitigated to the maximum extent practicable;
- 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;
- the applicant will provide any additional measures that the Secretary of the Interior requires as being necessary or appropriate; and
- the Secretary of the Interior has received any other assurances, as may be required, that the HCP will be implemented.

The public is notified of permit issuance by publication in the Federal Register.

During the fourth phase, the permittee and other responsible entities implement the Plan, and the USFWS monitors the permittee's compliance with the Plan as well as the long-term progress and success of the Plan.

1.6.3 National Environmental Policy Act

The purpose of NEPA is two-fold: to ensure that Federal agencies examine environmental impacts of their actions (in this case, deciding whether to issue an ITP) and to inform and involve the public. NEPA serves as an analytical tool to consider direct, indirect, and cumulative impacts of the proposed action and alternatives to help the USFWS decide whether to issue an ITP. The USFWS will complete a NEPA analysis as part of the ITP application process.

1.6.4 National Historic Preservation Act

All Federal agencies are required to examine the cultural impacts of their actions (e.g. issuance of a permit). This may require consultation with the State Historic Preservation Office and appropriate American Indian tribes. All ITP applicants are requested to submit a Request for Cultural Resources Compliance form to the USFWS. To complete compliance, the applicants may be required to contract for cultural resource surveys and possibly provide mitigation to address the impacts on cultural resources, if any, of authorizing incidental take of listed species.

1.7 COUNTY-LEVEL PLANNING AND ZONING

The Plan builds upon, and closely integrates with, Collier County's planning and zoning framework for lands within eastern Collier County. This section briefly summarizes the recent history of planning and zoning in eastern Collier County, the evolution of the County's innovative program to protect natural resources and agriculture while allowing for economic development, how that program underpins several key elements of the Plan, and how the Plan builds on the RLSP to provide significant conservation value beyond what is possible under the RLSP alone.

1.7.1 Background

In the late 1990s, the State of Florida challenged Collier County's comprehensive plan, contending that the required conservation elements would not sufficiently protect natural resources (including listed species and their habitats). Environmental NGOs intervened in support of the State. The challenge was upheld by a Florida administrative law judge in a March 1999 ruling. In June 1999, Governor Jeb Bush issued Final Order AC-99-02, which directed Collier County to perform an assessment of 195,000 acres in eastern Collier County (known as the "Immokalee Area Study"). Specifically, the order required that the assessment address long-term planning issues in order to balance natural resource protection, agriculture, and economic development within the 195,000-acre area.

Between 1999 and 2002, the applicants collaborated with Collier County, environmental NGOs, consultants, local citizens, and State agencies to complete the assessment, and to develop new comprehensive planning strategies and policies that would satisfy the requirements of the State's Final Order. The initial efforts involved a thorough compilation, mapping, and synthesis of natural resource and land use data for the 195,000-acre area, to serve as an objective and verifiable basis for planning and natural resource protection. The datasets collected through this process were entered into GIS to

allow for spatial analyses, data visualizations, data updating, and reporting. A report synthesizing this information was submitted to Collier County in December 2000.

Between 2000 and 2002, stakeholders utilized the GIS data to develop and test various scenarios for meeting the requirements of the Final Order. The stakeholders realized that any attempt to simply impose restrictive new zoning regulations would seriously compromise any chance of creating a broadly supported and viable long-term plan for the area. Collaborative stakeholder engagement likely would have ceased as a result of new zoning restrictions that would have effectively imposed the most restrictive burdens on those property owners who possessed the highest value natural resources, preventing those property owners from realizing the economic value of their land, including the benefits of future development and continued agricultural land use. Moreover, State of Florida statutes require that any such change that compromises private property vested rights (e.g., "downzoning" property) be considered a taking that must be compensated economically by the government entity imposing the change (Chapter 70, Florida Statutes). In short, simply imposing new zoning and/or land use regulations in eastern Collier County would likely have been counterproductive, logistically difficult, subject to protracted legal challenges, and ultimately unworkable.

As various scenarios were considered (with a 2002 Final Order deadline looming), the stakeholders understood that any effort to successfully achieve a long-term balance between agriculture, natural resource conservation, and economic development must recognize the potential economic value of *each* of these activities, and be available to all property owners within the 195,000-acre area. A breakthrough occurred when the parties concluded that economic development, primarily master-planned residential and commercial development, must be directly and quantifiably tied to permanent conservation benefits that could achieve the desired balance for future land uses. Ultimately, this collaborative process resulted in a system for calculating "credits" generated by protecting environmentally sensitive lands, and established procedures for calculating how many credits would be required to entitle a proposed development. Although the system possessed some similarities to Transfer of Development Rights (TDR) programs, this system provided more economic and regulatory incentives to protect the highest-quality natural environments, and allowed more flexibility to property owners for relinquishing various land-use rights. The resulting system was carefully calibrated, using GIS, to generate a total number of credits that could entitle a maximum development footprint within the 195,000-acre area. The plan was designed as a "closed system," so a maximum development footprint would leave the balance of the area as agricultural lands and native habitats.

This credit system became the basis for new planning policies and amendments, and was codified as the Collier County Rural Land Stewardship Program (RLSP).[3] The RLSP, approved by Collier County and the State of Florida in 2002, offers landowners a voluntary alternative to existing zoning, at the option of the

[3] The acronym "RLSP" is used throughout this document to refer to the Rural Land Stewardship Program and its associated elements. The Collier County Land Development Code (LDC), which implements the RLSP, utilizes the acronym "RLSA" to refer to the Rural Land Stewardship Area, the geographic area within which the County's RLSP policies and codes apply.

property owner, and provides for a more strategic and environmentally sensitive balance between conservation and development. Because entry into the program is purely voluntary for each property owner, no downzoning or property rights issues are triggered. As of this writing, the RLSP has operated continuously for 15 years, and has proven successful in meeting the policy goals for balanced economic development, agricultural land use, and permanent protection of environmentally sensitive lands.

1.7.2 Rural Land Stewardship Program (RLSP) Basics

Prior to the 2002 adoption of the RLSP, the zoning in eastern Collier County was (and to this day remains) one dwelling unit per five-acre area. This zoning plan can result in low-density growth patterns that fragment habitat, create inefficiencies in infrastructure and services, and generally complicate effective conservation actions. These low-density patterns are found immediately west of the HCP Area in the area known as “Golden Gate Estates” (see Figure 2-1, aerial imagery on left side of figure).

The RLSP did not change the underlying zoning of eastern Collier County, for the reasons outlined in the previous section. Rather, the RLSP operates as a zoning overlay, where the standards and criteria defined for the RLSP are applicable only if a property owner within the RLSA voluntarily elects to enter the program. Property owners may elect to enter the program when they wish to develop their property at densities greater than one dwelling unit per five acres, when they wish to set aside environmentally sensitive lands for protection, when they wish to receive credit for permanently limiting land uses to agriculture, and/or when they want to undertake other allowable activities incentivized by the program.

The RLSP creates incentives for property owners to protect environmentally sensitive lands (sending areas) permanently, in exchange for “stewardship credits” that can be used, traded, or sold to entitle compact forms of development (receiving areas) at higher densities than baseline zoning. RLSP policies mandate that compact development at higher densities can only occur within those areas that have been mapped as having limited natural resource values (i.e., previously cleared areas), and then only through the use of stewardship credits. Stewardship credits are only recognized after a perpetual “Stewardship Easement” is recorded for the land parcel being protected. The easement runs with the land in favor of Collier County and a State agency such as the Florida Department of Agriculture and Consumer Services (FDACS), the Florida Department of Environmental Protection (FDEP), or the South Florida Water Management District (SFWMD).

Under the RLSP, the local approval process for sending areas and receiving areas involves applicant submittal of a technical report that characterizes the sending area’s natural resources and credits generated, a rigorous application review by county planning and environmental staff, issuance of a staff report to the Collier County Board of County Commissioners, a public hearing before the commissioners (with a minimum 15 days’ notice in local newspapers), and majority approval of a resolution by the Board. Easements are recorded in the official County records after Board approval.

For property owners who enter the RLSP and seek to develop land at densities greater than existing zoning, Collier County will not issue any development approvals until the owner obtains (generates or purchases) the quantity of stewardship credits necessary to entitle the development. In essence, this

mechanism ensures that the construction of higher-density development (receiving areas) cannot commence until after the associated sending areas are under permanent protection with recorded easements.

The stewardship credit system was calibrated in a manner that protects several acres of native habitat and/or open space in exchange for one acre of higher-density development (the exact ratio depends upon habitat quality and other environmental factors). Implementation of the RLSP is intended to preserve the large regional wetland flowway systems and large blocks of interconnected upland and wetland native habitats that occur within the program area. Skeptics of the RLSP questioned whether the program would protect environmentally sensitive lands as planned. To date, however, over 50,000 acres have been designated for protection under the RLSP, including the vast majority of one regional flowway, and 20,000 acres of high-value panther habitats directly adjacent to the FPNWR and BCNP. A five-year review of the RLSP completed in 2009 concluded that the program was meeting the policy objectives it sought to achieve (Collier County 2009).

The five-year review resulted in a recommendation that residential and commercial development be capped at 45,000 acres within the RLSA. In order to reach that development cap, the balance of the HCP Area (approximately 107,000 acres, or 70 percent) would be protected permanently, in return for sufficient stewardship credits to entitle the development. Another recommendation was to increase the incentives for agricultural preservation, in order to preserve open space, agriculture, and the rural economy. This landscape-scale mosaic of native habitats and agricultural uses currently supports the Covered Species, as well as other species.

Since 2002, the RLSP policies have been implemented through the Collier County Land Development Code, which provides the detailed standards, procedures, protection mechanisms, site design criteria, and related program elements. The documentation may be accessed online at: https://library.municode.com/fl/collier_county/codes/land_development_code; see Section 4.08).

Several aspects of the RLSP provide assurance that the protection of environmentally sensitive lands (sending areas) will precede any local approvals to begin development activities within designated receiving areas:

- Lands within the RLSA cannot be developed at densities greater than existing zoning (1 dwelling unit per 5 acres) unless a property owner voluntarily enters the program;
- Stewardship credits can only be generated (and officially recorded in the County ledger) through the designation of environmentally sensitive lands as sending areas, which requires the recording of perpetual easements over those lands;
- A receiving area (and its associated development plans) cannot be approved by Collier County unless/until the applicant can demonstrate that it possesses a sufficient number of stewardship credits;

- Therefore, no construction activities within receiving areas may commence until the Collier County staff and the Board of County Commissioners have verified that the required stewardship easements over the associated sending areas have been recorded; that the applicant possesses a sufficient number of credits to entitle the development; and the receiving area development plans are in compliance with the Collier County Land Development Code, Section 4.08.

- Stewardship credits can only be generated and utilized within the RLSA. The system was initially calibrated to limit the extent of potential future development. Current proposed RLSP amendments would enforce a strict cap for receiving areas of 45,000 acres total, and the system would be recalibrated to achieve that policy goal.

Many factors provide assurance that the RLSP will remain in place through the 50-year term of the ITP:

- The RLSP has been in place for over 15 years, and the program is working as designed;

- The RLSP is considered a great planning success by Collier County commissioners, staff, and RLSP stakeholders;

- The first development under the RLSP – the Town of Ave Maria – brought mixed-use economic development to the area and preserved over three acres of environmentally valuable lands for every acre of development;

- The tax base for Collier County is increased by the new developments, and the sending areas (placed under perpetual easements) remain on the County tax rolls;

- All of the requirements of the 1999 Final Order are satisfied through the adoption and implementation of the RLSP.

The RLSP is unlikely to be changed substantially or replaced. If the RLSP were discontinued, all of the benefits listed above would cease. The county's comprehensive plan would no longer be in compliance with State regulations, and new natural resource protection measures would need to be developed for eastern Collier County (a process that spanned three years until the RLSP was created). There would be a high likelihood of litigation resulting from any new comprehensive plan element for the area, brought by property owners and/or third-party challenges. In short, the RLSP is working so well, and the downsides of changing it substantially are so great, that the probability of such change is exceptionally low.

1.7.3 Added Benefits of the Plan

The RLSP and the Plan work in concert through a combination of economic incentives and regulatory mechanisms to achieve a balanced, sustainable future for the region. The Plan builds upon the goals of the RLSP and increases substantially the conservation benefits that are possible under the RLSP to create a long-term balance between environmental preservation, listed species protection, agriculture, and economic development.

The Plan will integrate with and reinforce the RLSP elements addressed in the section above. The permit holders would be the ECPO members listed in Section 1.3. Property bordering the HCP Area owned by other entities could become part of the Plan through Certificates of Inclusion, if acceptable to USFWS (see Section 2.4). The Plan itself limits future development to those lands depicted on Figure 2-1 as "Covered Activities," and caps that development at 45,000 acres. Additionally, under the terms of the ITP, any development within the HCP Area must provide compensation for panther habitat loss in the form of panther habitat units (PHUs; see Chapter 4). The Plan verifies that sufficient PHUs can be generated by the 107,000 acres set aside for protection in perpetuity, and all of those PHUs will be required as compensation if the 45,000-acre cap is reached.

In addition, the Plan will use the framework provided by the RLSP to provide benefits that extend well beyond those that would be possible through the RLSP alone. These benefits include the following:

- Landscape-level planning that will result in greater conservation benefits than would exist under uncoordinated participation in the RLSP, including ensuring preservation of regional wildlife habitat corridors that allow for movement of wildlife among existing public conservation lands in Southwest Florida;
- Incorporation and implementation of the Florida Panther Protection Program (FPPP)[4], a collaboration between ECPO and several leading conservation organizations that integrates a variety of programs, studies, and strategies to enhance and fund a science-based program "to better protect and manage the Florida panther in southwest Florida." (FPPP 2010).
- Creation and funding of the Marinelli Fund, which will be used for conservation activities that will benefit the Florida panther, as well as other wildlife;
- Collaboration and coordination with the Service and FWC; and
- Additional monitoring required under the ITPs that is not required under the RLSP.

The requested term of the ITPs – 50 years – will allow for planning, permitting and completion of contemplated or foreseeable development within the portion of the HCP Area designated for Covered Activities, and for implementation of conservation actions that benefit Covered Species in the portions of the HCP Area designated for Preservation/Plan-Wide Activities and Very Low Density Use.

[4] "The purpose of the Florida Panther Protection Program …is to facilitate the management and protection of panthers within the Enhanced Protection Area [i.e., RLSP/Plan area] by providing a contiguous range of preserved panther habitat in the Enhanced Protection Area to assist recovery through the use of buffering against panther-human interaction, locating and construction of panther crossings, and the protection, enhancement, restoration, including corridor enhancement or restoration, or acquisition of panther habitat demonstrated to be important to panther protection and management within the Enhanced Protection Area based upon a technical review and analysis of available data..." (excerpt from FPPP MOU between Rural Landowners and Conservation Organizations, June 2008).

1.8 SUMMARY OF ALTERNATIVES TO THE ECMSHCP

Chapter 10 of this document describes four basic alternatives considered by the applicants (ECPO), and the reasons why the Plan emerged as the preferred alternative. The four alternatives included: Existing Zoning (no HCP); the Proposed HCP (Plan); a Panther-Only HCP; and a Panther Review Team (PRT) HCP Configuration.

When assessing these four alternatives, it is useful to consider a 2006 academic study of statewide population growth and projected land use, and specifically the projected land use patterns for eastern Collier County. The "Florida 2060" report (Zwick and Carr 2006) utilized population projections from 2005-2060, the existing gross urban densities (as of 2005), and estimates of developable land (considering proximity of urban centers; road densities; and absence of wetlands) to model population distributions on 1-acre grid cells in GIS.

Figure 1-2 depicts the Florida 2060 data within the RLSP. In this modeled scenario, approximately 135,000 acres of land would be developed and populated. Note that the study did not take into account the 2002 Collier County comprehensive plan amendments that effectively limited some of this potential development. This 2060 scenario would impact most of the native habitat acreage in eastern Collier County, and would disconnect and fragment regional flowways and wildlife corridors.

The existing Collier County zoning within the HCP Area allows for one dwelling unit per five-acre area, and thus defines one baseline alternative to the Plan. Figure 1-3 illustrates the extent of potential development for the "Existing Zoning" alternative, using the same color scheme as Figure 1-2 to allow for visual comparisons. Under the existing program, over 90,000 acres of land within the RLSP area are designated as "Open" to allow potential development. Approximately half of this acreage could be developed if property owners voluntarily entered the RLSP and developed within receiving areas. Those owners who voluntarily chose not to enter the program and elected to develop at the existing 1:5 zoning could develop the other half of the "Open" lands, bringing the total development footprint (RLSP and existing zoning) to over 90,000 acres. This scenario would preserve the core of the regional flowways, large blocks of habitat, and wildlife corridors, but would preserve far less land and native habitats than the proposed HCP.

The proposed HCP (Plan), schematically depicted in Figure 2-1, occupies approximately 152,000 acres within the RLSA, and proposes up to 45,000 acres of development (see Chapter 2). The balance of the HCP Area, 107,000 acres, would be placed under perpetual easements that run with the land. The proposed HCP limits potential development, preserves the greatest land acreage, preserves the greatest extent of native habitats, and protects the existing flowways and wildlife corridors within the RLSP. The proposed HCP provides an integrated conservation plan for the Florida panther and eighteen other species on a landscape scale, while the other alternatives lack a long-term plan and would result in ad-hoc development patterns and mitigation.

The third alternative, a "Panther-Only HCP," would cover the same land area as the proposed HCP (Figure 2-1), but would only cover the Florida panther under the terms of the ITPs. The eighteen other

Covered Species would be evaluated by the relevant permitting authorities on a project-by-project basis, and conservation actions for those species would be determined for each project. While the panther would benefit from an integrated conservation plan under the ITPs, the other species would not be "Covered Species."

The "Panther Review Team (PRT) Configuration" alternative accommodated up to 45,000 acres of development, similar to the proposed HCP (see section 10.4). Although much of the potentially developable land area in this alternative overlaps with the proposed HCP (Plan), the PRT configuration proposed some additional area for preservation, additional buffers along the Camp Keais and Corkscrew systems, and different configurations for two panther corridors. However, the PRT alternative included non-ECPO lands outside the HCP Area in its analyses (see Figure 2-1 and Section 2.4). While those lands could eventually be included in the Covered Lands, they are not currently in the Plan. Additionally, the configuration of land ownership and landowner interests do not align with the PRT configuration, rendering the alternative impracticable.

In summary, the proposed Plan represents the preferred alternative and the best opportunity for perpetual preservation of habitats for the Florida panther and the eighteen other Covered Species. The existing zoning for the RLSP could result in a development footprint of over 90,000 acres, while the development footprint within the HCP Area would be limited to 45,000 acres. In comparing the proposed HCP to a "Panther-Only HCP," there are clear conservation and regulatory benefits to including the eighteen other Covered Species. Finally, although the PRT alternative proposed a similar development footprint as the proposed HCP, the PRT configuration includes non-ECPO lands outside of the HCP area, and does not align with land ownership patterns and landowner interest. The proposed HCP therefore represents the preferred and most practicable alternative.

1.9 CONCLUSION

The Plan furthers the goal of panther conservation, and conserves many other federally-listed and state-listed species, by working with USFWS to incorporate RLSP and FPPP program elements in a formal plan under Section 10 of the ESA. The RLSP and the Plan synergistically provide assurances at the local and federal levels that conservation measures will be implemented, and that a long-term balance of land uses will be achieved. Using the framework established by the RLSP, the Plan provides landscape-level planning and other benefits that extend well beyond that the RLSP could accomplish alone.

Once issued, the ITPs will specify the rights and responsibilities of all parties to the Plan, and legally bind the parties to its provisions. After several decades of panther research, meetings, agency outreach, and discussions, this Plan finally provides a viable science-based, legally binding mechanism for the realization of Florida panther habitat preservation on private lands, along with preservation of other Covered Species habitat, and a long-range vision for sustainable regional planning in eastern Collier County.

2. PLAN DESCRIPTION AND ACTIVITIES COVERED BY PERMIT

2.1 PLAN DESCRIPTION

The Plan provides a long-term (50-year) framework for the preservation and management of approximately 107,000 acres of privately owned land, located within the 151,779± acres of privately owned lands in eastern Collier County. The approximately 107,000 acres protected through the Plan – the lands that will ultimately be dedicated for Preservation/Plan-Wide Activities and Very Low Density Use at Plan completion (described in section 2.2 below and depicted in Figure 2-1) – comprise an ecologically important landscape-scale mosaic of habitats and land uses that support the Florida panther and seven other federally-listed species. These lands also support one candidate species for federal listing, two species that are under review for federal listing, and eight non-federally-listed species that are listed threatened by the State of Florida.[1]

The Plan conserves major regional wildlife habitat linkages, preserving habitat connectivity between the existing public conservation lands to the south of the HCP Area that are part of the panther's core population area, and between the public conservation lands and dispersal corridors to the north and east of the HCP Area. Specifically, these regional linkages connect the Big Cypress National Preserve (BCNP), Florida Panther National Wildlife Refuge (FPNWR), Fakahatchee Strand State Preserve (FSSP) and Picayune Strand State Forest to the Corkscrew Regional Ecosystem Watershed (CREW), Okaloacoochee Slough State Forest (OSSF), Dinner Island Ranch Wildlife Management Area, Spirit of the Wild Wildlife Management Area, and the panther "Dispersal Zone" (USFWS 2002a; Kautz et al. 2006). The conservation and management of these lands will provide important ecological benefits for the Florida panther, the other Covered Species, and other wildlife, including black bear.

Under the Plan, the historic, ongoing, and future land uses within the approximately 107,000 acres of protected lands — primarily agriculture and ranching — will continue and will provide the basis for long-term sustainable activities compatible with conserving the Covered Species. Outside of the protected areas, Covered Activities will include up to 45,000 acres (combined total) of residential/commercial development and earth mining within predefined portions of the 151,779±-acre HCP Area, consistent with the Collier County RLSP. These 45,000 acres include the 5,027-acre Town of Ave Maria, for which Federal permitting and Section 7 consultations have been completed. The acreage of Covered Activities attributable to the ITPs, therefore, is actually less than 40,000 acres (45,000 – 5,027 = 39,973).

The Covered Activities will occur primarily within previously-cleared agricultural areas that currently possess low proportions of native habitats, and exhibit little native habitat connectivity. These previously-cleared or otherwise disturbed areas generally consist of active agricultural fields, fallow fields, pastures, and other areas managed for agricultural production, which may include minor remnants of native vegetation (e.g., small cypress domes; small depressional wetlands). The Plan will thereby provide prospective, landscape-level management of future development on privately owned lands, by consolidating and directing development away from more ecologically valuable areas of

[1] The species covered by the Plan are listed in Tables 1-1, 1-2, and 1-3 (see Chapter 1, Background).

interconnected native habitats and toward previously cleared areas with lower habitat support functions. This integrated landscape approach provides significant ecological benefits over the piecemeal, project-by-project approach that typically occurs without landscape-level coordination and planning of conservation actions among separate, private landowners.

The Plan builds upon the ecological benefits arising from the RLSP (see Chapter 1), augmenting the RLSP by providing greater certainty for long-term planning of economic activities, as well as habitat preservation for the Florida panther and other Covered Species, through extensive preservation of habitats and regional wildlife corridors. The Plan institutes a 50-year integrated framework, and will reduce planning risks and regulatory uncertainties for property owners, regulatory agencies, environmental advocates, and the general public. Expanding upon the potential benefits of the RLSP, the Plan will provide the following benefits that will further long-term protection goals for the Florida panther and other Covered Species:

- Preservation, through conservation easements, of approximately 107,000 acres of land, which include existing regional wildlife corridors ("critical linkages") that provide landscape-scale "ecological greenways" among existing public conservation lands;
- Maintenance of lands designated as Preservation/Plan-Wide Activities and Very Low Density Use, to preserve the ecological value of those lands for Covered Species, through land management practices such as control of invasive plant species;
- Minimization of adverse impacts to Covered Species (e.g., concentrating and directing development to the more heavily developed western portions of the RLSP; directing lights and noise away from habitat);
- Monitoring potential impacts of the Covered Activities to listed species and their habitat to ensure that impacts are accounted for and minimized;
- Enhanced panther habitat mitigation (25% additional mitigation beyond that currently required by USFWS panther habitat functional analyses for activities subject to Federal approval within the panther primary zone); and
- Incorporation and implementation of the Florida Panther Protection Program (FPPP).

The Plan will also provide funding for activities undertaken through the Paul J. Marinelli Florida Panther Protection Fund (the Marinelli Fund, described in section 2.7 below and in Chapter 9). The Marinelli Fund was established through the FPPP to fund panther conservation activities. In 2016, the FPPP expanded the potential scope of the Fund's uses to include funding conservation activities to benefit other Covered Species, in addition to the panther. The Plan will support the Marinelli Fund through (i) contributions to be made on a per-acre basis as Covered Activities are initiated and (ii) transfer fees to be paid on a per-unit basis as homes within the HCP Area are sold and re-sold. Initiatives to benefit the Florida panther and other Covered Species will be undertaken at the discretion of the Fund's Board of Directors, and are expected to include funding for activities such as the following:

- Enhancement and management of wildlife corridors (the "North" and "South" corridors, described in Section 2.2 *infra*, with areas to be enhanced depicted as arrows on Figure 4-9) that facilitate landscape-scale movement of panther and black bear, in addition to other wildlife;
- Construction of panther and other wildlife crossings on roadways within the HCP Area; and
- Land acquisition, enhancement, and management, providing additional habitat for panther and other Covered Species.

Figure 2-1 depicts the extent of the HCP Area within the RLSA, the areas designated for Covered Activities (residential/commercial development and earth mining), Preservation/Plan-Wide Activities, Very Low Density Use, and Base Zoning (each described below). The Plan sets forth the acreage and general location for each of the designated uses (Figure 2-1). Precise locations will be determined in the future.

The Plan designates 97,086 acres as "Preservation/Plan-Wide Activities." The Plan also designates a 50,175-acre area where Covered Activities may occur, but caps the total for Covered Activities at 45,000 acres. Thus, 45,000 acres of Covered Activities may occur anywhere within this 50,175-acre area. The unused balance (5,175 acres) will be placed in the "Preservation/Plan-Wide Activities" designation, bringing the total of that designation to 102,261 acres. The Plan designates 2,087 acres "Very Low Density Use," indicating areas that may be used for such purposes as isolated residences, lodges, and hunting/fishing camps. In the event this property is used for such purposes, any construction would be limited to no more than one structure or dwelling unit per 50 acres. Finally, the 2,431-acre area within the HCP Area that makes up the Half Circle L Ranch is currently identified as "Base Zoning." These lands are located in an RLSP "Open" overlay area, where either development or preservation can occur under RLSP regulations, and where base zoning (1 dwelling unit per 5 acres) under the Collier County Land Development Code applies. The Half Circle L Ranch is for sale on the open market, and the current property owner is a member of the FPPP and an applicant for an ITP. The status of this property will be resolved during the timeframe for USFWS review of the HCP document, drafting of the IA (if applicable), and processing of the ITP applications. Currently, this Base Zoning area is simply identified. If the current or future owner chooses not to develop the area, it will be included in the Plan as land designated for Preservation/Plan-Wide Activities. If the current or future owner develops the area, the development footprint will be included under the 45,000-acre cap for Covered Activities and 2,431 acres that would have otherwise been designated for Covered Activities will be included in the area designated for Preservation/Plan-Wide Activities. Thus, the areas designated for Preservation/Plan-Wide Activities and Very Low Density Use will ultimately total approximately 107,000 acres, and the land designated for Covered Activities will be capped at 45,000 acres.

Figure 2-2 provides a regional view that illustrates how areas within the HCP Area designated for Preservation/Plan-Wide Activities serve to link existing public conservation lands. Table 2-1 summarizes the current land use and land cover within the HCP Area, by land designation category.

Okaloacoochee Slough State Forest

Corkscrew Regional Ecosystem Watershed

Lake Trafford

Immokalee

Immokalee Reservation

Big Cypress National Preserve

Florida Panther National Wildlife Refuge

Fakahatchee Strand State Preserve

Note: The location of Covered Activities was delineated in a Geographic Information System (GIS) to define the location, extent, and general configuration of where these Covered Activities may occur over a 50-year timeframe. The acres depicted in Covered Activities total approximately 50,175 acres. The actual total acreage of Covered Activities is constrained by the ECMSHCP to 45,000 acres within the HCP boundary. The exact configuration of Covered Activities will be refined during the design and permitting processes for each project.

L E G END

- HCP Area
- Preservation/ Plan-Wide Activities
- Covered Activities
- Very Low Density Use (≤ 1DU : 50 Acres)
- Base Zoning (1DU : 5 Acres)
- Prior Federal Permitting Initiated
- Eligible for HCP Inclusion (Non-ECPO Lands)
- Rural Land Stewardship Area Boundary
- Existing Conservation Land
- County and State Roads (not covered in ECMSHCP)

0 1 2 Miles

N

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FIGURE 2-1
HCP Land Designations
November 2017

Stantec Consulting Services Inc.
5801 Pelican Bay Blvd. Suite 300
Naples, FL 34108
tel 239.649.4040
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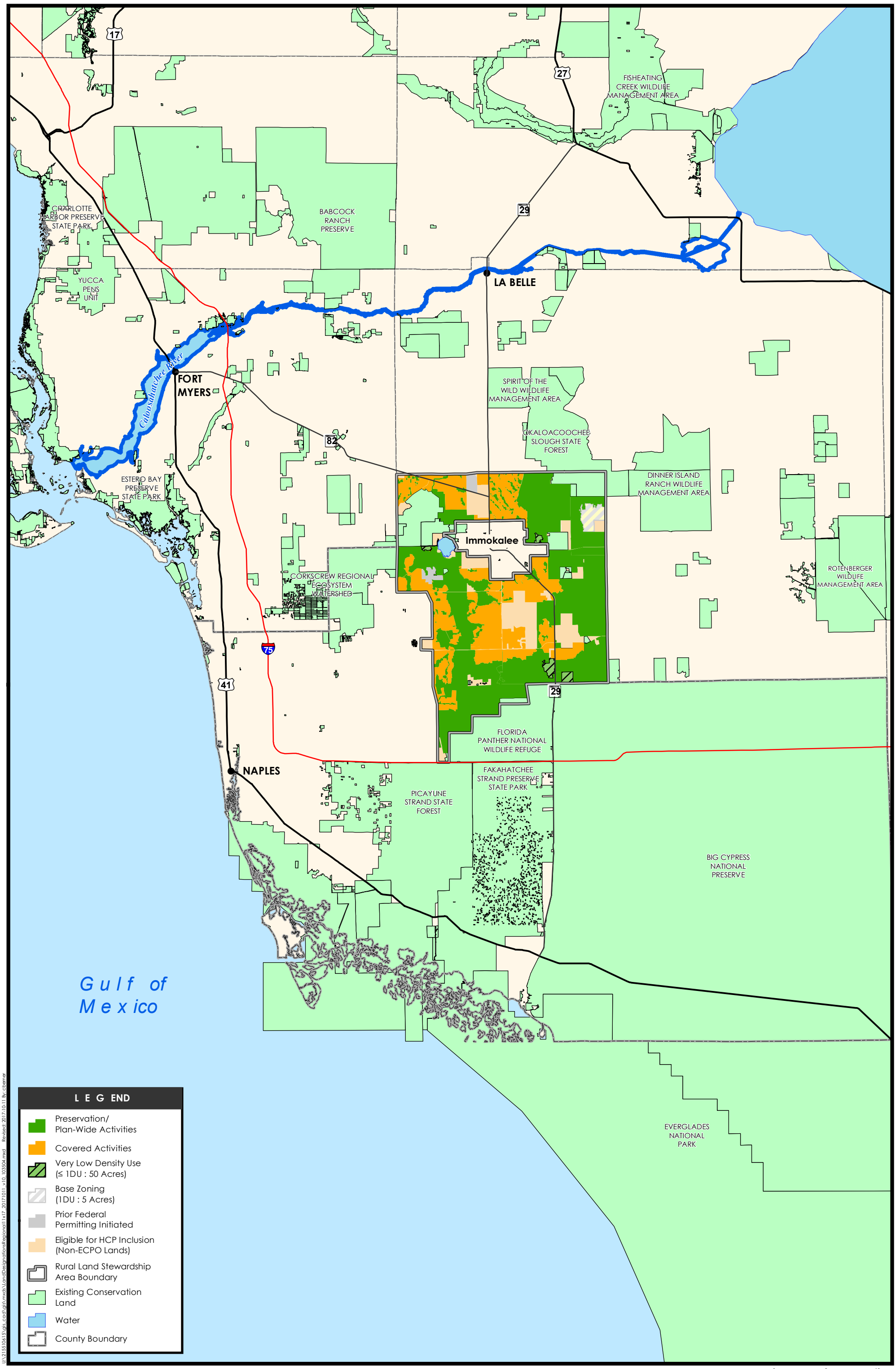

U:\215510615\gis\mxds\LandDesignationsRegional11x17_20171011_v10_103504.mxd Revised: 2017-10-11 By: cberner

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FIGURE 2-2

HCP Land Designations - Regional View

November 2017

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Table 2-1. Existing land use / land cover within the ECMSHCP, by land designation category.

LAND USE / LAND COVER CATEGORY	COVERED ACTIVITIES (ACRES)[1]	PRESERVATION/ PLAN-WIDE ACTIVITIES (ACRES)[2]	VERY LOW DENSITY USE (ACRES)[3]	BASE ZONING (ACRES)[4]	TOTAL ACRES
Urban / Infrastructure	2,203	164	10	4	**2,381**
Mining / Oil and Gas	0	334	445	0	**779**
Pastures (Improved)	5,126	9,467	446	1,211	**16,250**
Cropland / Pasture	15,795	9,481	0	568	**25,844**
Citrus groves / other groves	19,842	8,287	0	1	**28,130**
Other Agriculture Rural Open Lands	1,730	4,457	117	0	**6,304**
Exotic Plants	377	541	2	0	**920**
Native upland non-forested	428	1,009	138	0	**1,575**
Native upland forested	1,775	9,791	307	16	**11,889**
Native wetland non-forested	2,101	25,672	169	536	**28,478**
Native wetland forested	796	27,717	442	93	**29,048**
Water	0	161	10	0	**171**
TOTALS PER FIGURE 2-1	**50,175**	**97,086**	**2,087**	**2,431**	**151,779**
TOTALS AT PLAN COMPLETION[5]	**45,000**	**102,261**	**2,087**	**TBD**	**151,779**

[1] "Covered Activities" may occur anywhere within the 50,175-acre area shown on Figure 2-1, but will be capped at 45,000 acres total. The balance of acreage between Figure 2-1 and the 45,000-acre cap (5,175 acres) eventually will be placed into "Preservation/Plan-Wide Activities."

[2] "Preservation/Plan-Wide Activities" (102,261 acres) refers to land areas preserved at Plan completion.

[3] "Very Low Density Use" refers to isolated rural structures (lodges, camps), and the acreage contributes to habitat support for Covered Species.

[4] "Base Zoning" was retained on the Half Circle L Ranch, and refers to a maximum of 1 dwelling unit per 5 acres. See section 2.5 of text.

[5] "Totals at Plan Completion" reflect the 45,000-acre cap for "Covered Activities," with the balance of land dedicated to the other land designations. The "TBD" (To Be Determined) notation reflects the fact that the Half Circle L Ranch is currently for sale, and its current zoning is retained until the current or new property owner places the land into a specific designation under the ECMSHCP.

The primary elements of the Plan are outlined in sections 2.2 and 2.3 below. The first two elements – Preservation/Plan-Wide Activities and Very Low Density Use – currently occur and/or will occur within the approximately 107,000 acres slated for permanent protection. The Covered Activities (residential/commercial development and earth mining activities), will occur within the 45,000 acres identified for Covered Activities described in section 2.3 ("Activities Covered By Incidental Take Permit").

2.2 PRESERVATION/PLAN-WIDE ACTIVITIES AND VERY LOW DENSITY USE

Activities that may occur in the lands designated for Preservation/Plan-Wide Activities include the types of agricultural, ranching, and other rural activities that have occurred throughout the HCP Area historically, and are expected to continue into the future. These predominantly agricultural activities preserve the current extent and function of the landscape-scale mosaic of habitats and land uses in this area that support the Covered Species, and are consistent with the protection of lands under the Plan.

These include activities such as the following:

- Crop Cultivation;
- Ranching/Livestock Operations;
- Forestry and Silviculture;
- Recreation;
- Exotic and Nuisance Species Control; and
- Oil and Gas Exploration and Production.

Many of these activities have generally occurred for a century or more in eastern Collier County, and in their present form are compatible with use of the lands designated for Preservation/Plan-Wide Activities and Very Low Density Use by the Covered Species. Some historic land use practices, such as the establishment and maintenance of pastures, directly benefit one or more Covered Species (e.g., northern crested caracara; Florida burrowing owl; Florida sandhill crane). In addition, existing land management practices may benefit the Covered Species. For example, prescribed burning benefits the Florida panther, gopher tortoise, and Eastern indigo snake; water retention area management may benefit wood stork and snail kite; and exotic species control benefits the Florida panther and many of the other Covered Species). Allowing these activities to continue also provides the opportunity for long-term agricultural use of lands, environmentally beneficial land management, and species conservation within a contiguous regional landscape.

Active oil and gas production has occurred within the HCP Area since the 1940s, and remains ongoing. Long-term radiotelemetry data and GPS data demonstrate that oil and gas production is compatible with utilization of the surrounding habitat by the Florida panther. No adverse effects of oil and/or gas exploration or production have been documented for the Covered Species within the HCP Area, and no incidental take of Covered Species is expected based on these activities. The oil and gas activities

conducted in the HCP Area are subject to regulation and permitting by the State of Florida (FDEP) and Federal agencies. Under the Plan, oil and gas exploration and production are activities that may occur anywhere within the HCP Area, as there are inherent uncertainties related to locating productive oil and gas reserves.

The permittees will also have the option of using the 2,087-acre area designated for Very Low Density Use for such purposes as isolated residences, lodges, and hunting/fishing camps (see Figure 2-1, Very Low Density Use). Any construction in this area would be limited to no more than one structure or dwelling unit per 50 acres. The low density of any development on these lands would be compatible with the panther's continued use of these lands.

The Plan will designate the vast majority (approximately 107,000 acres, or 70%) of the HCP Area as Preservation/Plan-Wide Activities and Very Low Density Use, which represent over 92 percent of the native habitats found within the HCP Area. This will ensure that the approximately 107,000 acres of contiguous lands will continue to support the needs of the Florida panther and other Covered Species through preservation, management, and ecological restoration (to be initiated through the Marinelli Fund where feasible). These lands include large blocks of native habitat where panthers have been documented extensively (Maehr 1990; USFWS 2002a; FPPP Technical Review Team [FPPPTRT] 2009).

The Plan includes the following activities that are collectively designed to meet biological goals and objectives for the Covered Species within the HCP Area:

- **Extensive, Contiguous Land Preservation.** The primary ecological benefit of the Plan is the designation of approximately 107,000 acres of contiguous lands for Preservation/Plan-Wide Activities and Very Low Density Use by Plan completion. These vast interconnected lands support the Florida panther as the Plan's major "focal species" (Beier 2010), as well as the other Covered Species. The approximately 107,000 acres of contiguous lands contain an ecologically valuable landscape-scale mosaic of native habitats and agricultural land uses that are utilized by the Florida panther and the other Covered Species. The preservation of these lands, which include two existing regional wildlife corridors – the Camp Keais Strand and Okaloacoochee Slough flowways – has been a goal of conservationists dating back several decades, and a goal identified specifically with respect to the panther since the 1980s (Belden et al. 1988; Maehr 1990; Logan et al. 1993). The Plan will prevent impacts that would have resulted from more intensive uses or development of the land designated for Preservation/Plan-Wide Activities and Very Low Density Use; preserve large, interconnected blocks of panther habitat; and minimize potential impacts of future development by concentrating and directing that development toward existing development and previously cleared areas in the western portions of the HCP Area, in the area designated for Covered Activities.

  As residential/commercial and earth-mining activities are approved and implemented in the area designated for Covered Activities, commensurate acreages within the lands designated for Preservation/Plan-Wide Activities and Very Low Density Use will be placed under conservation easements to compensate for permitted impacts. A summary of the current acreage of various

types of land cover and land use within the approximately 107,000-acre area that will be designated for Preservation/Plan-Wide Activities and Very Low Density Use is provided in Table 3-1, and depicted in Figure 3-4 (see Chapter 3, Environmental Setting). These phased land preservation activities will be augmented by the land management, mitigation, and monitoring activities described below, which will preserve and enhance the ecological function of these lands.

- **Management of Preserved Lands.** The lands designated for Preservation/Plan-Wide Activities and Very Low Density Use will be managed to preserve their existing ecological functions. Many of the activities that already occur within the lands designated for Preservation/Plan-Wide Activities, such as exotic and nuisance species control and pasture management, will benefit some or all of the Covered Species.

  The management activities that may occur within areas designated for Preservation/Plan-Wide Activities and Very Low Density Use in native habitat areas include, but are not limited to: exotic and nuisance species control; prescribed burning; mechanical control of excessive forest understory/fuel loads; tree thinning to improve native forest productivity; mechanical, hydrologic, and/or chemical control of vegetation to improve community structure and/or plant species diversity; construction and maintenance of surface water management structures for preservation or enhancement of existing/natural hydrologic function; scouting and monitoring of lands on foot, horseback, or by vehicle.

  The management activities that may occur within areas designated for Preservation/Plan-Wide Activities and Very Low Density Use in areas with non-native land cover types (predominantly agricultural fields and pastures) include a subset of the activities as listed above: crop cultivation; ranching/livestock operations; forestry and silvicultural operations; and exotic and nuisance species control. Collectively, these predominantly agricultural management activities will preserve the ecological functions of the area by maintaining healthy agro-ecosystems, controlling invasive species, and providing varying degrees of direct habitat support to some or all of the Covered Species.

- **Mitigation and Monitoring.** The designation of these lands for Preservation/Plan-Wide Activities and Very Low Density Use provides an effective framework for the implementation of systematic (rather than *ad-hoc*) mitigation and monitoring activities within the HCP Area. The Plan will restrict residential/commercial development activities and earth mining (Section 2.3) to areas designated for Covered Activities, which are largely previously cleared or otherwise disturbed areas with little native panther habitat and little habitat connectivity. Potential impacts to the Florida panther and the other Covered Species will be covered under ITPs issued to the applicants, which will provide for appropriate levels of mitigation and subsequent monitoring. Consistent with the RLSP, and as specified by USFWS under the ITPs, mitigation will be provided by placing conservation easements on lands designated for Preservation/Plan-Wide Activities as development in the area designated for Covered Activities occurs. Monitoring will be conducted to verify mitigation compliance.

Additional mitigation activities may include: wildlife mitigation activities designed to benefit one or more of the Covered Species, in coordination with USFWS and/or FWC; and wetland mitigation activities required by Federal and/or State resource agencies, including the U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (USEPA), South Florida Water Management District (SFWMD), and Florida Department of Environmental Protection (FDEP).

Wildlife mitigation activities may include habitat enhancement (invasive species control, prescribed burning, supplemental planting, etc.); hydrologic enhancement (increasing/decreasing seasonal high water to influence community composition); surface water management for species-specific requirements (e.g., northern caracara, wood stork, Everglade snail kite); and wetland creation, restoration, and/or enhancement.

- **Preservation of Existing Panther Movement Corridors.** Several planning and conservation efforts have identified the potential benefit of creating and/or enhancing wildlife movement corridors within Southwest Florida and eastern Collier County (Collier County 2009; FPPPTRT 2009; Small et al. 2012). As part of a comprehensive mitigation program, the Plan sets aside lands designated for Preservation/Plan-Wide Activities and Very Low Density Use that will allow for preservation of these corridors, which link large blocks of preserved habitat within and beyond the HCP Area. As depicted schematically in Small et al. (2012), setting aside these lands will allow for the enhancement of two corridors within the HCP Area: one corridor linking the Corkscrew Marsh system with the Okaloacoochee Slough system ("North" corridor); and another corridor linking habitats just east of SR 29 to the middle portions of the Okaloacoochee Slough ("South" corridor) (See Chapter 4, Florida Panther, and Figure 4-9). The Marinelli Fund could be used to fund activities to enhance the utility of these corridors through the planting of native vegetation used as cover by the panther and other Covered Species. Additionally, where these panther movement corridors intersect roadways, the Marinelli Fund could be used to fund activities to arrange for construction of fenced wildlife crossings to ensure safe passage of panthers and other wildlife through the landscape.

2.3 ACTIVITIES COVERED BY INCIDENTAL TAKE PERMIT

The Plan proposes two general categories of Covered Activities that will be conducted by or under the direction or control of the applicants: (i) residential/commercial development and (ii) earth mining. Upon full implementation of the Plan, including full build-out of the 45,000 acres of land designated for Covered Activities, the areas that will be designated for Preservation/Plan-Wide Activities and Very Low Density Use will encompass approximately 107,000 acres within the HCP Area, with the land permanently protected under conservation easements. The land utilized for Covered Activities will be capped at a maximum combined total of 45,000 acres, but as indicated above, the maximum combined total attributable to the ITPs will be less than 40,000 acres due to the inclusion of the Town of Ave Maria.

The applicants are seeking authorization for incidental take of the Covered Species resulting from Covered Activities conducted by or on behalf of the applicants, their lessees, their contractors, and/or

holders of Certificates of Inclusion,[2] that may occur within the pre-defined "Covered Activities" land designation areas within the HCP Area (Figure 2-1). The applicants request that ITPs be issued to the Plan applicants at the conclusion of Plan development. Any other activities that may potentially affect federally-listed species are not covered by the Plan.[3]

As shown in Figures 2-1 and 2-2, and summarized in Table 2-1, the Plan will accommodate up to a maximum of 45,000 acres of residential/commercial development and earth mining, in areas largely already cleared for agriculture that have low qualities of native habitat and little or no native habitat connectivity. The Town of Ave Maria (5,027 acres) will be included in this 45,000-acre cap.[4] The Covered Activities will be phased over the 50-year duration of the ITPs. Prior to the conversion of a given tract within the "Covered Activities" areas designated for development and/or earth mining activities (Figure 2-1), pre-existing activities (Section 2.2) can continue to occur. At any given time during the 50-year ITP duration, the total area designated for development will be a mix of agricultural lands, earth mining, and residential/commercial development, but at no time will the combined acreage of residential/commercial development and earth mining within the area designated for Covered Activities exceed 45,000 acres. The residential/commercial development and earth mining activities included in the Plan, for which incidental take authorization is requested, are described in the following bulleted paragraphs.

- **Residential/Commercial Development.** These activities include the planning, design, permitting, and construction of mixed-use residential communities and associated commercial facilities, along with infrastructure internal to the development footprint necessary to support these activities. Land uses within these developments may include, but are not limited to: single-family housing; multi-unit housing; public and private institutional facilities; commercial space; office space; retail establishments; surface water management; internal roadways; utilities; open space (e.g., parks, landscaping buffers, lakes); and other elements typical of mixed-use developments. Wherever feasible, developments will employ environmentally friendly planning

[2] See section 2.4, below.

[3] For example, the ITPs will not authorize or control incidental take resulting from activities of third parties (*e.g.*, actions that are not conducted by or on behalf of the applicants), such as panther-vehicle collisions on external roadways. Panther-vehicle collisions are not expected during construction and maintenance of roads internal to development areas permitted under the ITPs, based on factors such as the low speed of travel on these roads and relatively lower likelihood of panthers crossing roads, and therefore any such collisions, and any other panther strikes on these internal roads will not be covered. In addition, the ITPs will not cover panther strikes on any other roadways within the HCP Area (whether public or private). For example, roadway improvements conducted as part of county and/or State programs are not covered by the Plan, including pursuant to any current or future Long-Range Transportation Plans (LRTPs) developed by the Collier County Metropolitan Planning Organization (MPO).

[4] As described in Chapter 1, there are two parcels of land located within the RLSA (and the outer boundaries of the HCP Area) – the Hogan Island Quarry and the Immokalee Sand Mine – that are owned by ECPO members but are not included in the HCP Area or as Covered Activities because the Federal permitting process for each, including Section 7 consultations, is either already complete or is expected to be complete by the time the ITPs are issued. These two parcels are accounted for in the overall configuration and planning for wildlife corridors and other ecologically beneficial features of the Plan.

and designs, such as clustering, low-impact development, water reuse techniques, and greenspace buffers. These activities are subject to local, State, and Federal regulatory programs related to the establishment and operation of residential/commercial developments.

- **Earth Mining.** These activities include the planning, design, permitting, construction, operation, and decommissioning of surface earth mines. Within the area designated for Covered Activities, the earth materials extracted will be soil, sand, limestone, and similar earth materials used for construction fill, roadway fill, landscaping, and similar uses. Earth mines may occur as a prelude to future land uses, such as development, or may occur as an end-use. Permitting and regulation of earth mining activities is administered by USACE, FDEP, and Collier County.

In addition, lands designated as Plan-Wide/Preservation and Very Low Density Use will require periodic land management in perpetuity to maintain or improve habitat functions; maintain agriculture operations; maintain drainage infrastructure; control exotic vegetation; and control pests and diseases. Under the Plan, these activities include land management techniques such as prescribed burning; mechanical control of groundcover (e.g., roller chopping, brush-hogging, mowing); ditch and canal maintenance; mechanical and/or chemical control of exotic vegetation; soil tillage; and similar activities that maintain or improve land quality. The applicants also seek take coverage for these activities.

2.4 CERTIFICATES OF INCLUSION HOLDERS AND LESSEES

The permit applicants seek incidental take authorization for the Covered Activities, up to a maximum footprint of 45,000 acres, which will occur within the 50,175-acre area designated for Covered Activities on Figure 2-1. This incidental take authorization will extend to the applicants' subsidiaries, employees, lessees, and contractors, and other parties carrying out otherwise lawful activities conducted under the direction of the applicants and in compliance with the terms of the ITPs.

Although the applicants (ECPO members) own the entirety of the 151,779± acres within the HCP Area, non-ECPO private property owners hold over 20,000 acres of land (as calculated from the Collier County Property Appraiser database) within the RLSP area where the Plan is set. Figure 2-1 depicts these non-ECPO private property holdings as "Eligible for HCP Inclusion" within RLSP boundary. Some of these non-ECPO lands possess conservation value that could augment the conservation benefits provided by the Plan, should the current or future non-ECPO property owners choose to add some or all of their land to the Plan.

Given the 50-year duration of the ITPs, the intent of this Plan element is to provide additional flexibility in implementing the Plan, while adhering to the 45,000-acre limit for Covered Activities and without changing the areas within which the Covered Activities may occur. The goal is to recognize the possibility that future land transfers, purchases of new conservation lands, conservation incentives, or other mechanisms may provide new opportunities for enhancing the Plan, especially for the Florida panther.

Programmatic HCPs, such as those implemented by counties or states, often include a mechanism for non-participating property owners to participate in an HCP after issuance of the ITP. The reason for doing this is to facilitate the assembly of a wider and/or more complete conservation area and

comprehensively address activities within the area to the extent practicable. In such cases, a "Certificate of Inclusion" may be issued, which conveys the incidental take authorization to the new participant, while maintaining the take limitations and conservation requirements of the ITP.

At least one private-sector HCP – the Tehachapi Uplands Multiple Species Habitat Conservation Plan – has utilized this mechanism. The permit applicants recognize the potential benefits of such an approach for augmenting the Plan, and also for providing flexibility in responding to changed or unforeseen circumstances. The use of "Certificates of Inclusion" would not result in any increased take, reduce the conservation benefits specified in the ITP, or result in changes to the extent or location of Covered Activities, but would provide a means for flexibly enhancing the Plan.

2.5 BASE ZONING AREA

Figure 2-1 depicts a "Base Zoning" area on 2,431 acres of the Half Circle L Ranch, east of Immokalee. The 2,431 acres represents an RLSP "Open" overlay area, where either development or preservation could occur under RLSP regulations, and where base zoning (1 dwelling unit per 5 acres) under the Collier County Land Development Code applies. As of this writing, the Half Circle L Ranch is for sale on the open market. Although the current property owner is a member of the FPPP and an applicant for an ITP, it is not known whether the property will be sold before the HCP/ITP process is concluded, or what land designation would be applied to the 2,431 acres in the event of a sale.

The status of this property is expected to be resolved during the timeframe for USFWS review of the HCP document, completion of the NEPA process, and processing of the ITP applications. For the purposes of this draft of the HCP document, the Base Zoning area is simply identified, and counts neither as land designated for Covered Activities, or for Preservation/Plan-Wide Activities or Very Low Density Use. Should the current or future owner choose not to develop the area, it will be included in the Plan as land designated for Preservation/Plan-Wide Activities. Should the current or future owner develop the area at base zoning or higher densities, the development footprint will be included under the 45,000-acre cap for Covered Activities, and 2,431 acres that would have otherwise been designated for Covered Activities will be included in the area designated for Preservation/Plan-Wide Activities.

2.6 OTHER TAKE AVOIDANCE AND MINIMIZATION MEASURES

The primary avoidance and minimization measure for potential impacts to the Florida panther and other Covered Species is the designation of approximately 107,000 acres of contiguous lands for Preservation/Plan-Wide Activities and Very Low Density Use (Figure 2-1). Within the 45,000 acres proposed for Covered Activities, multiple avoidance and minimization measures will be implemented at project-level scales as part of project planning, design, permitting, and construction. The Plan's direction of development toward less ecologically valuable, previously cleared areas, and preservation of more ecologically valuable contiguous areas of land, serves as a significant avoidance and minimization strategy. Other project-level avoidance and minimization measures for the Covered Species are described in Chapter 4 (Florida Panther) and Chapter 7 (Conservation Plan for Other Covered Species).

2.7 OTHER PLAN ELEMENTS

A major benefit of the Plan is the opportunity for coordination with the FPPP (see Chapters 1 and 9). The FPPP is a collaborative effort among the applicants and several major environmental groups to assist in the conservation and recovery of the Florida panther. A central component of the FPPP is the establishment of the Marinelli Fund, which will be governed by its own board of directors, and will be funded by the Plan.

The Fund will be underwritten by (i) contributions to be made on a per-acre basis as Covered Activities are initiated and (ii) transfer fees to be paid on a per-unit basis as homes within the HCP Area are sold and re-sold (see Chapter 9 for more detail). In addition to possible enhancement of the North and South Corridors (described above), the Marinelli Fund may be used for a variety of conservation activities that assist with panther recovery, such as design and construction of wildlife underpasses under and fencing along roadways to prevent wildlife-vehicle collisions; panther habitat acquisition, management, restoration and/or enhancement; and other activities that are consistent with the FPPP goals; the Fund may also be used to benefit the other Covered Species (Chapter 9).

The Plan also identifies the potential for changed and unforeseen circumstances (see Chapter 8). Examples of reasonably foreseeable changed circumstances include the potential impacts of hurricanes; wildfires; pests, and diseases affecting Covered Species and/or their habitats; effects of climate change; and new listings of species not covered by the Plan. The Plan also incorporates measures for responding to changed circumstances that may impact one or more Plan elements. Under USFWS's "No Surprises" rule, permittees are not required to provide additional resources or funds to address unforeseen circumstances.

The Plan identifies alternatives to the issuance of the ITPs as proposed under the Plan, and explains why the other alternatives were not selected (see Chapter 10, Alternatives).

The detailed provisions for implementing this Plan will be incorporated into the permits or IA. The IA (if applicable) and/or the permits will specify the mutual obligations of the applicants and USFWS for executing the Plan elements, and for carrying out the Plan in accordance with the terms of the ITPs and Federal regulations.

Revised Chapters 1 & 2 Comments
Ken McDonald
11/30/2017

1) Expand Section 1.3 to include contact information for representatives of each applicant. If ECPO will continue to represent the applicants throughout the lifespan of the HCP, designate them as such and additionally provide relevant contact information for the ECPO designated representative in this section. Ensure someone picking up this HCP knows exactly how to contact the individual(s) participating in the HCP and administering it. Consider moving this section to the front of Chapter 1.
2) Move discussion of Covered Species conservation and recovery histories from Chapter 1 to the appropriate species chapters.
3) After the applicants and their representatives have been identified, introduce the activities and species for which an ITP is sought. Call this Section "Purpose of the HCP."
    a. Bring the description of Covered Activities from Chapter 2 to Chapter 1
        i) Where applicants retain a governance role in any future commercial developments, residential developments, or earth mining activities add "facilities/properties management" to the list of Covered Activities.
        ii) Remember to include conservation actions in the list of Covered Activities (example, those being implemented for Rural Lands West). *Note: Very Low Density Use" might qualify as a minimization measure ONLY IF it is being implemented as an alternative to more intense development that would otherwise occur. If more intensive development is not being considered for "Very Low Density Use" locations, these need to be described as a Covered Activity.
        iii) Describe the manner of takings for each Covered Activity (e.g. "harm & harassment" or any other manner of taking likely to occur relative to each covered activity).
        iv) Describe features common to activities that makes them different than what would be pursued without an HCP (a change in housing density from base zoning, trip-capture within communities, reduction of water consumption relative to present etc).
        v) Summarize how the aggregate of Covered Activities will impact Covered Species without mitigation.
    b. Describe the FULL Regulatory Environment in which these impacts will occur (local, state, and federal). Provide a table listing all laws and regulations (local, state, and federal) applicants must adhere to in order to engage in Covered Activities. Provide a separate table listing all of the permits required for applicants to engage in Covered Activities.
    c. Identify which of these laws and regulations are satisfied by compilation of the HCP and implementation of the measures contained within it.
    d. Broadly describe the desired end state for Covered Species (e.g. "no-net loss", "net gain" etc).
4) See Figure 9.1e on page 9-5 of the HCP handbook for guidance on how to describe biological goals for the HCP, and break down biological goals and measures hierarchically.
    a. Chapter 1 describes the "Purpose of the HCP." Some of the purpose is described in Chapter 1, but the presentation of it gives one the impression it's a sales pitch rather than a description (There's some text dedicated to Chapter 2 describing "Regional or Landscape Goals", "Vision for HCP Program", and "HCP Goals", but these should be more explicitly identified in the text- consider naming chapters after these and putting in the appropriate information). Chapters describing impacts to species should have sections titled "HCP Objectives", "HCP Measures", and "Monitoring Goals" for each species.

Label: "Chuck's Projects/Eastern Collier HCP/Releasable Emails/CK 2018 1st QTR Releasable Emails"

Created by:charles_kelso@fws.gov

Total Messages in label:17 (13 conversations)

Created: 10-12-2018 at 08:12 AM

Conversation Contents

Chapters 1& 2 Comments & Suggestions

Attachments:

/1. Chapters 1& 2 Comments & Suggestions/1.1 ECMSHCP_Chapter 1_submitted_20171024_KenComments.pdf
/1. Chapters 1& 2 Comments & Suggestions/1.2 ECMSHCP_Chapter_2_submitted_20171024_KenComments.pdf
/1. Chapters 1& 2 Comments & Suggestions/1.3 Ken Comments.docx
/1. Chapters 1& 2 Comments & Suggestions/2.1 ECMSHCP_Chapter 1_submitted_20171024_KenComments.pdf
/1. Chapters 1& 2 Comments & Suggestions/2.2 ECMSHCP_Chapter_2_submitted_20171024_KenComments.pdf
/1. Chapters 1& 2 Comments & Suggestions/2.3 Ken Comments.docx

"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Fri Dec 08 2017 08:37:12 GMT-0700 (MST)
To:	"Johnson, Bruce" <Bruce.Johnson@stantec.com>
Subject:	Chapters 1& 2 Comments & Suggestions
Attachments:	ECMSHCP_Chapter 1_submitted_20171024_KenComments.pdf ECMSHCP_Chapter_2_submitted_20171024_KenComments.pdf Ken Comments.docx

Hey Bruce,

Attached are my comments and suggestions for Chapters 1&2. I didn't see anything in Chapter 3 that needed any further work, in my opinion it's fine as it is. This is the applicants' document, but I think there are things that can be done in chapters 1& 2 to make it more useful to them and more clear to us, though.

Ken

--
Kenneth McDonald
Fish & Wildlife Biologist
South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, Florida 32960-3559
Office: 772.469.4284
Fax: 772.562.4288
kenneth_mcdonald@fws.gov

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"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Thu Mar 29 2018 05:47:05 GMT-0600 (MDT)
To:	"Kelso, Charles" <charles_kelso@fws.gov>
Subject:	Fwd: Chapters 1& 2 Comments & Suggestions
Attachments:	ECMSHCP_Chapter 1_submitted_20171024_KenComments.pdf ECMSHCP_Chapter_2_submitted_20171024_KenComments.pdf Ken Comments.docx

---------- Forwarded message ----------
From: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>
Date: Fri, Dec 8, 2017 at 10:37 AM
Subject: Chapters 1& 2 Comments & Suggestions
To: "Johnson, Bruce" <Bruce.Johnson@stantec.com>
Cc: "Cassler, Constance" <constance_cassler@fws.gov>, "Kelso, Charles" <charles_kelso@fws.gov>

Hey Bruce,

Attached are my comments and suggestions for Chapters 1&2. I didn't see anything in Chapter 3 that needed any further work, in my opinion it's fine as it is. This is the applicants' document, but I think there are things that can be done in chapters 1& 2 to make it more useful to them and more clear to us, though.

Ken

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Conversation Contents

Fwd: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County

Attachments:

/5. Fwd: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County/1.1 Qs for SFWMD.10.2017.docx

"Cassler, Constance" <constance_cassler@fws.gov>

From:	"Cassler, Constance" <constance_cassler@fws.gov>
Sent:	Fri Dec 15 2017 07:30:48 GMT-0700 (MST)
To:	Charles Kelso <charles_kelso@fws.gov>
Subject:	Fwd: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
Attachments:	Qs for SFWMD.10.2017.docx

FYI

Constance L. Cassler, Ph.D.
Supervisory Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960
office: 772-469-4243
fax: 772-562-4288
email: constance_cassler@fws.gov

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Follow us on InstaGram @usfws_south_florida
Visit our web site at www.fws.gov/verobeach/

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---------- Forwarded message ----------
From: **Williams, Larry** <larry_williams@fws.gov>
Date: Fri, Dec 15, 2017 at 9:24 AM
Subject: Fwd: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
To: Roxanna Hinzman <Roxanna_Hinzman@fws.gov>, Jose Rivera <jose_rivera@fws.gov>, Constance Cassler <Constance_Cassler@fws.gov>

Please pass on to appropriate staff members.

Thanks,

Larry
---------- Forwarded message ----------
From: **Gaylene Vasaturo** <gaylenevasaturo@sbcglobal.net>
Date: 2017-12-15 8:53 GMT-05:00
Subject: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
To: larry_williams@fws.gov

Mr. Williams, attached above are comments concerning Rural Lands West proposed development which is in the Rural Lands Stewardship Area of Collier County.

Please consider these comments for the pending Rural Lands West Development Corp of Engineer Permit review SAJ-2008-00210 (SP-RMT) and for the Environmental Impact Statement that USFWS is preparing for the Eastern Collier Multispecies Habitat Conservation Plan in the Rural Lands Stewardship Area.
Please place these comments in the appropriate public records.

These comments were submitted to South Florida Water Management District for their consideration of the pending Rural Lands West ERP Application #160711-8

--
Larry Williams
State Supervisor for Ecological Services
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, FL 32960-3559
Ph: 772-469-4285
Fax: 772-778-0683
larry_williams@fws.gov

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Conversation Contents

Shaggy Creek Consultation

"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Thu Dec 07 2017 11:50:07 GMT-0700 (MST)
To:	Christian Spilker <CSpilker@collierenterprises.com>, "Johnson, Bruce" <Bruce.Johnson@stantec.com>
Subject:	Shaggy Creek Consultation

Hi guys,

We have another project, "Shaggy Creek", being pursued by Barron Collier that's come into our office. This project consumes a major portion of the Covered Activities Area between Immokolee Road and Oil Well Road. If we do a Section 7 consultation for this project through the COE, this area will have to be removed from the HCP. We're simultaneously informing COE of the conflict, and that this project will likely need a full consultation.

Please advise on what's preferred. We will put a hold on our review of the HCP draft chapters until you let us know the project area is being correctly defined and the numbers reported in the draft chapters are correct.

Ken

--
Kenneth McDonald
Fish & Wildlife Biologist
South Florida Ecological Services Field Office
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Fax: 772.562.4288
kenneth_mcdonald@fws.gov

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Christian Spilker <CSpilker@collierenterprises.com>

From:	Christian Spilker <CSpilker@collierenterprises.com>
Sent:	Fri Dec 08 2017 10:21:27 GMT-0700 (MST)
	"'Mcdonald, Kenneth'" <kenneth_mcdonald@fws.gov>, "Johnson,

To: Bruce" <Bruce.Johnson@stantec.com>

Subject: RE: Shaggy Creek Consultation

Ken,

I am unaware of a project called “Shaggy Creek” and believe there may be some confusion in the name. The only application I am aware of with Shaggy in its name is an extension of an existing ag permit (ACOE 2008-02431) from the Corps that is entitled “Shaggy Cypress”. The Service was consulted on that project before the original permit was issued in July of 2011. The permit extension that is currently in front of the Service includes a modification to reduce the wetland impact by 6.32 acres or 18%. I hope this clears up some of the confusion.

Regards,

Christian Spilker

Vice President of Land Management
Collier Enterprises
2550 Goodlette Frank Rd North, #100
Naples, Fl 34103

(239)261-4455

From: Mcdonald, Kenneth [mailto:kenneth_mcdonald@fws.gov]
Sent: Thursday, December 07, 2017 1:50 PM
To: Christian Spilker; Johnson, Bruce
Cc: Cassler, Constance; Kelso, Charles; Hamlin, Dennis
Subject: Shaggy Creek Consultation

Hi guys,

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kenneth_mcdonald@fws.gov

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"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Fri Dec 08 2017 10:50:46 GMT-0700 (MST)
To:	Christian Spilker <CSpilker@collierenterprises.com>
Subject:	Re: Shaggy Creek Consultation

Thanks,

I see Dennis (the biologist handling that project) has sent out an email to COE with some questions he has about it. Will any of the work being done under this permit in anyway be used to facilitate construction of Rural Lands West, or is the work involved with that permit entirely separate?

Ken

On Fri, Dec 8, 2017 at 12:21 PM, Christian Spilker <CSpilker@collierenterprises.com> wrote:

> Ken,
>
> I am unaware of a project called “Shaggy Creek” and believe there may be some confusion in the name. The only application I am aware of with Shaggy in its name is an extension of an existing ag permit (ACOE 2008-02431) from the Corps that is entitled “Shaggy Cypress”. The Service was consulted on that project before the original permit was issued in July of 2011. The permit extension that is currently in front of the Service includes a modification to reduce the wetland impact by 6.32 acres or 18%. I hope this clears up some of the confusion.
>
> Regards,
>
> Christian Spilker
>
> Vice President of Land Management
> Collier Enterprises
> 2550 Goodlette Frank Rd North, #100
> Naples, Fl 34103
>
> (239)261-4455
>
> **From:** Mcdonald, Kenneth [mailto:kenneth_mcdonald@fws.gov]
> **Sent:** Thursday, December 07, 2017 1:50 PM
> **To:** Christian Spilker; Johnson, Bruce
> **Cc:** Cassler, Constance; Kelso, Charles; Hamlin, Dennis
> **Subject:** Shaggy Creek Consultation

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kenneth_mcdonald@fws.gov

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- Benjamin Franklin

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--
Kenneth McDonald
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Created by:charles_kelso@fws.gov

Total Messages in label:13 (6 conversations)

Created: 10-12-2018 at 08:07 AM

Conversation Contents

Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero

Attachments:

/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/1.1 image001.jpg
/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/2.1 image001.jpg
/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/3.1 image001.jpg
/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/4.1 image001.jpg
/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/4.2 USFWS Meeting 2017-2018 Agenda.docx
/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/5.1 image001.jpg
/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/6.1 image001.jpg
/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/6.2 image001.jpg
/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/6.3 image001.jpg
/1. Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero/6.4 USFWS Meeting 2017-2018 Agenda.docx

"Hinzman, Roxanna" <roxanna_hinzman@fws.gov>

From:	"Hinzman, Roxanna" <roxanna_hinzman@fws.gov>
Sent:	Mon Nov 27 2017 15:53:15 GMT-0700 (MST)
To:	amber crooks <amberc@conservancy.org>
Subject:	Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero
Attachments:	image001.jpg

Hi Amber - I have the small annex conference room booked from 1-4. I've invited Connie and Chuck Kelso (Chuck will be taking over the HCP while Ken is deployed). We'll see you in February.
Happy holidays!
Rox

Roxanna Hinzman, Field Supervisor
U.S. Fish and Wildlife Service South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960
Desk 772-469-4309
Cell 772-532-1247

Fax 772-562-4288
roxanna_hinzman@fws.gov

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From:	amber crooks <amberc@conservancy.org>
Sent:	Tue Dec 12 2017 10:19:12 GMT-0700 (MST)
To:	"'Hinzman, Roxanna'" <roxanna_hinzman@fws.gov>
Subject:	RE: Setting up a meeting with the Conservancy of Southwest Florida in Vero
Attachments:	image001.jpg

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"Kelso, Charles" <charles_kelso@fws.gov>

From:	"Kelso, Charles" <charles_kelso@fws.gov>
Sent:	Fri Feb 16 2018 08:21:45 GMT-0700 (MST)
To:	"Hinzman, Roxanna" <roxanna_hinzman@fws.gov>, amber crooks <amberc@conservancy.org>, Constance Cassler <constance_cassler@fws.gov>
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Subject:	RE: Setting up a meeting with the Conservancy of Southwest Florida in Vero
Attachments:	image001.jpg USFWS Meeting 2017-2018 Agenda.docx

Hi Chuck,

I'll be getting back with you ASAP as to whether the 27th or the 2nd work best for our meeting.

Here is the overly ambitious agenda we had put together for the Vero meeting. We can go ahead and cancel that and I'll redraft the agenda to focus on the HCP and other local issues that you and Connie have the most nexus with. We can always take up the remainder of the agenda items at a future meeting in Vero, perhaps sometime over the summer.

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Attachments:	image001.jpg

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Thanks so much for your willingness to be flexible! It allows us to participate in the HCP tour and meeting, and still meet our commitment to the Conservancy. We really appreciate it!
Rox

Roxanna Hinzman, Field Supervisor
U.S. Fish and Wildlife Service South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960
Desk 772-469-4309
Cell 772-532-1247

Fax 772-562-4288
roxanna_hinzman@fws.gov

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On Tue, Feb 20, 2018 at 10:37 AM, amber crooks <amberc@conservancy.org> wrote:

> Hi Chuck,
>
> I'll be getting back with you ASAP as to whether the 27th or the 2nd work best for our meeting.
>
> Here is the overly ambitious agenda we had put together for the Vero meeting. We can go ahead and cancel that and I'll redraft the agenda to focus on the HCP and other local issues that you and Connie have the most nexus with. We can always take up the remainder of the agenda items at a future meeting in Vero, perhaps sometime over the summer.
>
> Thanks
> Amber Crooks
> Amber Crooks, Environmental Policy Manager
> Conservancy of Southwest Florida
> 1495 Smith Preserve Way
> Naples, FL 34102
> (239)262-0304 ext. 286
> amberc@conservancy.org
> www.conservancy.org
>
> UNtitled logo
>
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>
> Please consider the environment before printing this e-mail
>
> **From:** Kelso, Charles [mailto:charles_kelso@fws.gov]
> **Sent:** Friday, February 16, 2018 10:22 AM
> **To:** Hinzman, Roxanna; amber crooks; Constance Cassler
>
> **Subject:** Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero
>
> Amber, Connie, Roxanna,
>
> Connie and I anticipate being in the Naples area for site visits and meetings on February 28 and March 1. This overlaps with the currently scheduled meeting with the Conservancy on the 28th in Vero. Since Connie and I will already be in the Naples area, it would make sense to have our meeting at the Conservancy's Naples office instead.

I plan to travel to Naples on Tuesday February 27th, conduct site visits and meetings Februay 28 and March 1, then return to Vero on Friday March 2nd. With that schedule, my best opportunities to meet with the Conservancy would be the afternoon of February 27, and the Morning of March 2.

To target a good meeting time, I've added a doodle poll. Once I have the doodle poll data, I'll send calendar invites.

On Mon, Nov 27, 2017 at 5:53 PM, Hinzman, Roxanna <roxanna_hinzman@fws.gov> wrote:
Hi Amber - I have the small annex conference room booked from 1-4. I've invited Connie and Chuck Kelso (Chuck will be taking over the HCP while Ken is deployed).
We'll see you in February.
Happy holidays!
Rox

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On Tue, Nov 21, 2017 at 11:48 AM, amber crooks <amberc@conservancy.org> wrote:
Hi Rox,

Thanks for the offer to meet on February 28, 2018 – we think that date will work great!

Would we be able to include the USFWS staff person who will be managing the Eastern Collier Habitat Conservation Plan while Ken is away on service? In attendance on our side will be Nicole Johnson (the Director of Environmental Policy for the Conservancy) and myself.

Our schedules are flexible that day, but after lunch would work best since we will be coming over from Naples. Let us know what time works best for you and how much time you would be able to provide for us. Thanks in advance and looking forward to meeting with you all.

Sincerely,

Amber Crooks
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amberc@conservancy.org
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From: Hinzman, Roxanna [mailto:roxanna_hinzman@fws.gov]
Sent: Tuesday, October 31, 2017 12:37 PM
To: amber crooks
Cc: Kelso, LeeAnn; Mcdonald, Kenneth

Subject: Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero

Hi Amber,
Spring sounds great! I have some flexibility in late February. Would the 28th work for y'all?
Thanks for thinking ahead!
Rox

Roxanna Hinzman, Field Supervisor
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On Tue, Oct 31, 2017 at 12:11 PM, amber crooks <amberc@conservancy.org> wrote:
Hi Rox,

I hope you are doing well - I apologize for taking so long to get back with you on this! We very much appreciate the opportunity to meet with you and your staff. Due to Hurricane Irma sidetracking us and the upcoming holidays, I am suspecting that we may want to push back our tentative meeting date to Spring 2018 (perhaps February or March)?

The attached agenda is draft and gives a sense of the type of topics we'd like to cover, knowing that we may only be able to get through a portion of what is proposed. We tried to put the agenda in order of Conservancy priorities.

As the Eastern Collier Habitat Conservation Plan is one of our central focuses, I am wondering what the best time frame to meet would be. I understand that Ken McDonald may be departing at some point soon for military duty. Perhaps a Spring meeting would allow us to meet the person that will be stepping in while he is away so they can be brought up to speed on our position and insights? During this meeting, we would also like to meet some of the newer review staff, since the last time we were over was in 2016 and there have been some staff changes.

Thanks in advance for your time and we look forward to catching up with you on these important issues.

In Kind Regards,

Amber Crooks

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From: Hinzman, Roxanna [mailto:roxanna_hinzman@fws.gov]
Sent: Monday, August 14, 2017 2:06 PM
To: amber crooks
Cc: Larry Williams; Kelso, LeeAnn
Subject: Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero

Wow! It has been a long time. As always, we'd be happy to sit down and chat. Oct-Nov is fine. I will be out of the office the week of October 23, and the week of Thanksgiving. Mondays are never good. Otherwise, please give me some options and I'll help coordinate from this end.

Great to see you too!
Rox

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On Mon, Aug 14, 2017 at 1:11 PM, amber crooks <amberc@conservancy.org> wrote:
Hello State Supervisor Williams and Field Supervisor Hinzman,

It was great to see you this week at the PRIT meeting. As always, a lot to think about it and digest with panther issues!

Larry, I wanted to follow up on our conversation about setting up a date for Conservancy staff to meet in Vero as we have done in the past. I think it has been over a year since we were there and there is plenty to catch up on! It would be great for Conservancy staff to meet the new Chief of Staff, as well as new reviewers that are working in the southwest Florida area.

As in the past, we would probably want to spend some time catching up about panther policy, the Eastern Collier Habitat Conservation Plan, and any other projects that we are aware of down here that we have been commenting on (e.g. Rural Lands West, mining projects, road projects etc.). I can begin to formulate a potential agenda to help use everyone's time wisely.

We appreciate your time and look forward to meeting with you, Rox, and any other appropriate staff members. Let me know if October-November timeframe would be an ok place to start and I can pick out some dates that might work.

In Kind Regards,

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--
Chuck Kelso
U.S. Fish and Wildlife Service

South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960-3559
(772)469-4241
Charles_Kelso@fws.gov

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"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Thu Mar 29 2018 05:47:57 GMT-0600 (MDT)
To:	"Kelso, Charles" <charles_kelso@fws.gov>
Subject:	Fwd: Setting up a meeting with the Conservancy of Southwest Florida in Vero
Attachments:	image001.jpg image001.jpg image001.jpg USFWS Meeting 2017-2018 Agenda.docx

Forwarded conversation
Subject: **RE: Setting up a meeting with the Conservancy of Southwest Florida in Vero**

From: **amber crooks** <amberc@conservancy.org>
Date: Tue, Oct 31, 2017 at 12:11 PM
To: "Hinzman, Roxanna" <roxanna_hinzman@fws.gov>
Cc: "Kelso, LeeAnn" <leeann_kelso@fws.gov>, "Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

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Great to see you too!
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Date: Tue, Nov 21, 2017 at 11:48 AM
To: "Hinzman, Roxanna" <roxanna_hinzman@fws.gov>
Cc: "Kelso, LeeAnn" <leeann_kelso@fws.gov>, "Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

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Sent: Tuesday, October 31, 2017 12:37 PM
To: amber crooks
Cc: Kelso, LeeAnn; Mcdonald, Kenneth

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Date: Mon, Nov 27, 2017 at 5:53 PM
To: amber crooks <amberc@conservancy.org>
Cc: "Kelso, LeeAnn" <leeann_kelso@fws.gov>, "Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>, Constance Cassler <constance_cassler@fws.gov>, "Kelso, Charles" <charles_kelso@fws.gov>

Hi Amber - I have the small annex conference room booked from 1-4. I've invited Connie and Chuck Kelso (Chuck will be taking over the HCP while Ken is deployed). We'll see you in February.
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From: **amber crooks** <amberc@conservancy.org>
Date: Tue, Dec 12, 2017 at 12:19 PM
To: "Hinzman, Roxanna" <roxanna_hinzman@fws.gov>
Cc: "Kelso, LeeAnn" <leeann_kelso@fws.gov>, "Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>, Constance Cassler <constance_cassler@fws.gov>, "Kelso, Charles" <charles_kelso@fws.gov>

Great, thanks! Looking forward to meeting with you all.

Amber Crooks
Amber Crooks, Senior Environmental Policy Specialist
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Naples, FL 34102
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From: Hinzman, Roxanna [mailto:roxanna_hinzman@fws.gov]
Sent: Monday, November 27, 2017 5:53 PM
To: amber crooks
Cc: Kelso, LeeAnn; Mcdonald, Kenneth; Constance Cassler; Kelso, Charles
Subject: Re: Setting up a meeting with the Conservancy of Southwest Florida in Vero

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--

Kenneth McDonald
Fish & Wildlife Biologist
South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, Florida 32960-3559
Office: 772.469.4284
Fax: 772.562.4288
kenneth_mcdonald@fws.gov

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Energy and persistence will conquer all things

- Benjamin Franklin

Conversation Contents

Chapters 1& 2 Comments & Suggestions

Attachments:

/2. Chapters 1& 2 Comments & Suggestions/1.1 ECMSHCP_Chapter 1_submitted_20171024_KenComments.pdf
/2. Chapters 1& 2 Comments & Suggestions/1.2 ECMSHCP_Chapter_2_submitted_20171024_KenComments.pdf
/2. Chapters 1& 2 Comments & Suggestions/1.3 Ken Comments.docx
/2. Chapters 1& 2 Comments & Suggestions/2.1 ECMSHCP_Chapter 1_submitted_20171024_KenComments.pdf
/2. Chapters 1& 2 Comments & Suggestions/2.2 ECMSHCP_Chapter_2_submitted_20171024_KenComments.pdf
/2. Chapters 1& 2 Comments & Suggestions/2.3 Ken Comments.docx

"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Fri Dec 08 2017 08:37:12 GMT-0700 (MST)
To:	"Johnson, Bruce" <Bruce.Johnson@stantec.com>
Subject:	Chapters 1& 2 Comments & Suggestions
Attachments:	ECMSHCP_Chapter 1_submitted_20171024_KenComments.pdf ECMSHCP_Chapter_2_submitted_20171024_KenComments.pdf Ken Comments.docx

Hey Bruce,

Attached are my comments and suggestions for Chapters 1&2. I didn't see anything in Chapter 3 that needed any further work, in my opinion it's fine as it is. This is the applicants' document, but I think there are things that can be done in chapters 1& 2 to make it more useful to them and more clear to us, though.

Ken

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Kenneth McDonald
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"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Thu Mar 29 2018 05:47:05 GMT-0600 (MDT)
To:	"Kelso, Charles" <charles_kelso@fws.gov>
Subject:	Fwd: Chapters 1& 2 Comments & Suggestions
Attachments:	ECMSHCP_Chapter 1_submitted_20171024_KenComments.pdf ECMSHCP_Chapter_2_submitted_20171024_KenComments.pdf Ken Comments.docx

---------- Forwarded message ----------
From: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>
Date: Fri, Dec 8, 2017 at 10:37 AM
Subject: Chapters 1& 2 Comments & Suggestions
To: "Johnson, Bruce" <Bruce.Johnson@stantec.com>
Cc: "Cassler, Constance" <constance_cassler@fws.gov>, "Kelso, Charles" <charles_kelso@fws.gov>

Hey Bruce,

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Conversation Contents

Fwd: HCP hand-off meeting

"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Tue Dec 05 2017 06:35:46 GMT-0700 (MST)
To:	"Kelso, Charles" <charles_kelso@fws.gov>, "Halupa, Paula" <paula_halupa@fws.gov>, "Cassler, Constance" <constance_cassler@fws.gov>
Subject:	Fwd: HCP hand-off meeting

See below
---------- Forwarded message ----------
From: **Johnson, Bruce** <Bruce.Johnson@stantec.com>
Date: Tue, Dec 5, 2017 at 8:28 AM
Subject: HCP hand-off meeting
To: "Kenneth Mcdonald (kenneth_mcdonald@fws.gov)" <kenneth_mcdonald@fws.gov>

Ken,

Per our discussion yesterday, let's schedule our HCP hand-off meeting for next Monday (12/11). I can be at your office at 0900 if that works for you and Chuck.

Please let me know how long you expect our meeting to run, and then ask Paula to be available afterwards to discuss the draft bonneted bat guidelines. If you want me to coordinate with her directly, please forward my contact info to her.

Also, can you tell me who is considered the main sand skink expert in Vero? We are developing a new sand skink survey protocol as part of Stantec's R&D program, and I'd like to run the concepts by the species expert(s).

I look forward to our meeting, and advancing this HCP.

Thanks,
Bruce

Bruce Johnson, Ph.D.
Senior Scientist, Senior Associate
Stantec
Phone: (407) 710-3379
Cell: (386) 527-8333
Bruce.Johnson@stantec.com



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--

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- Benjamin Franklin

"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Thu Mar 29 2018 05:46:10 GMT-0600 (MDT)
To:	"Kelso, Charles" <charles_kelso@fws.gov>
Subject:	Fwd: HCP hand-off meeting

Forwarded conversation

Subject: **HCP hand-off meeting**

From: **Johnson, Bruce** <Bruce.Johnson@stantec.com>
Date: Tue, Dec 5, 2017 at 8:28 AM
To: "Kenneth Mcdonald (kenneth_mcdonald@fws.gov)" <kenneth_mcdonald@fws.gov>

Ken,

Per our discussion yesterday, let's schedule our HCP hand-off meeting for next Monday (12/11). I can be at your office at 0900 if that works for you and Chuck.

Please let me know how long you expect our meeting to run, and then ask Paula to be available afterwards to discuss the draft bonneted bat guidelines. If you want me to coordinate with her directly, please forward my contact info to her.

Also, can you tell me who is considered the main sand skink expert in Vero? We are developing a new sand skink survey protocol as part of Stantec's R&D program, and I'd like to run the concepts by the species expert(s).

I look forward to our meeting, and advancing this HCP.

Thanks,
Bruce

Bruce Johnson, Ph.D.
Senior Scientist, Senior Associate
Stantec
Phone: (407) 710-3379
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Bruce.Johnson@stantec.com

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From: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>
Date: Tue, Dec 5, 2017 at 8:35 AM
To: "Kelso, Charles" <charles_kelso@fws.gov>, "Halupa, Paula" <paula_halupa@fws.gov>, "Cassler, Constance" <constance_cassler@fws.gov>

See below

--
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Conversation Contents

Fwd: Chapter 1 figures

Attachments:

/4. Fwd: Chapter 1 figures/1.1 Figure1-2_20171011_v04_103504.pdf
/4. Fwd: Chapter 1 figures/1.2 Figure1-3_20171011_v04_103504.pdf

"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Thu Mar 29 2018 05:45:39 GMT-0600 (MDT)
To:	"Kelso, Charles" <charles_kelso@fws.gov>
Subject:	Fwd: Chapter 1 figures
Attachments:	Figure1-2_20171011_v04_103504.pdf Figure1-3_20171011_v04_103504.pdf

Forwarded conversation

Subject: **Chapter 1 figures**

From: **Johnson, Bruce** <Bruce.Johnson@stantec.com>
Date: Mon, Dec 4, 2017 at 4:48 PM
To: "Kenneth Mcdonald (kenneth_mcdonald@fws.gov)" <kenneth_mcdonald@fws.gov>

Ken,

It has come to my attention that Figures 1-2 and 1-3 were not included in the Chapter 1 PDF that I had sent to you. Those two figures are attached to this email.

When the full HCP document is compiled as a PDF, those figures will certainly be included.

Thanks,
Bruce

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From: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>

Date: Tue, Dec 5, 2017 at 7:51 AM
To: "Tom Ostertag (tom.ostertag@myfwc.com)" <tom.ostertag@myfwc.com>, Brian Powell <brian_powell@fws.gov>, "Halupa, Paula" <paula_halupa@fws.gov>, Steve Schubert <steve_schubert@fws.gov>, Mary Peterson <Mary_Peterson@fws.gov>, Marla Hamilton <marla_hamilton@fws.gov>, Kim Dryden <kim_dryden@fws.gov>, David Shindle <david_shindle@fws.gov>, Elizabeth Landrum <elizabeth_landrum@fws.gov>, "Cassler, Constance" <constance_cassler@fws.gov>

Hi everyone,

Some figures were left out of chapters 1-3. Bruce forwarded them to me to aid in our review. See below.

Ken
--
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Conversation Contents

Fwd: Landowner Contact Information

"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Thu Mar 29 2018 05:45:17 GMT-0600 (MDT)
To:	"Kelso, Charles" <charles_kelso@fws.gov>
Subject:	Fwd: Landowner Contact Information

---------- Forwarded message ----------
From: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>
Date: Mon, Dec 4, 2017 at 8:28 AM
Subject: Landowner Contact Information
To: Christian Spilker <CSpilker@collierenterprises.com>, "Johnson, Bruce" <Bruce.Johnson@stantec.com>

Hey guys,

I am preparing to pass the colors to the biologists who'll take up where I left off as I go out on deployment at the beginning of January. Do you have an updated list of landowner/landowner representative contact information I can pass on to them?

Ken

--
Kenneth McDonald
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Conversation Contents

Fwd: Panther Transportation Sub-Committee Reports

Attachments:

/6. Fwd: Panther Transportation Sub-Committee Reports/1.1 Panther Hot Spots Chart 08112017 Final.pdf
/6. Fwd: Panther Transportation Sub-Committee Reports/1.2 Panther_collision_hotspots_1_Jan_2017.kmz
/6. Fwd: Panther Transportation Sub-Committee Reports/1.3 WildlifeCrossingGuidelines_05.03.6_FINAL TO SHARE.pdf

"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

From:	"Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>
Sent:	Thu Mar 29 2018 05:44:47 GMT-0600 (MDT)
To:	"Kelso, Charles" <charles_kelso@fws.gov>
Subject:	Fwd: Panther Transportation Sub-Committee Reports
Attachments:	Panther Hot Spots Chart 08112017 Final.pdf Panther_collision_hotspots_1_Jan_2017.kmz WildlifeCrossingGuidelines_05.03.6_FINAL TO SHARE.pdf

Forwarded conversation

Subject: **Panther Transportation Sub-Committee Reports**

From: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>
Date: Mon, Nov 27, 2017 at 10:39 AM
To: "Johnson, Bruce" <Bruce.Johnson@stantec.com>

Hey,

I'm attaching this to help out with your work on the panther chapter if you don't have them already.

Also, is there time tomorrow for us to have a call?

Ken

--

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From: **Johnson, Bruce** <Bruce.Johnson@stantec.com>
Date: Mon, Nov 27, 2017 at 1:44 PM
To: "Mcdonald, Kenneth" <kenneth_mcdonald@fws.gov>

Thanks, Ken. We did have that, and commented on it in the panther chapter.

It would be best if we could talk today around 2:15 if you're available. I'll be at the NCTC after that, and reception is iffy. Let me know, and I can try you from there tomorrow if you can't talk today.

Bruce

Get Outlook for iOS

From: Mcdonald, Kenneth <kenneth_mcdonald@fws.gov>
Sent: Monday, November 27, 2017 10:39:05 AM
To: Johnson, Bruce
Subject: Panther Transportation Sub-Committee Reports

From: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>
Date: Mon, Nov 27, 2017 at 1:46 PM
To: "Johnson, Bruce" <Bruce.Johnson@stantec.com>

I won't be available at 2:15 today, so give me a try tomorrow.

--
Kenneth McDonald
Fish & Wildlife Biologist
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From:	Tawes, Robert
To:	Cassler, Constance; Dell, David; Hinzman, Roxanna; Kelso, Charles
Cc:	Arnold, Jack
Subject:	Conversation with Christian Spilker, East Collier Property Owners, March 9, 2018
Date:	Monday, March 12, 2018 8:41:00 AM
Importance:	High

Hey everyone,

I just wanted to let everyone know I had a conversation with Christian on Friday. We discussed a number of items, including the scope and accelerated timelines of the EIS, billing and cost of the work done by AECOM to date, and the possibility of resuming monthly calls and the need for the field visit in May or June.

Quick summary:

- He expressed concern over the costs for additional services outlined in the change order form, as he did on the group call with AECOM on Thursday, but realized at this point that not much could be done. He recognized that measures were in place now with AECOM (and us) to avoid that in the future.
- I let him know that we (FWS folks) planned on circling up regarding additional potential increases in scope of analysis for the EIS (continuation of the conversations we had last year).
- We discussed the need for re-starting the monthly calls, now that they are poised to give us the revised HCP and to keep on track in accordance with NEPA timeframes outlined in Secretarial Order 3355. I offered to send out a Doodle poll of all participants, as I have done in the past.
- We discussed the need to have the leadership field trip in May or June. The idea is this trip would involve Rox, Larry, Jack, and Leo, and could be done in a day. Bottom line here is the sooner we do it the better, because as time progresses it gets hotter by the day and the chances of summer thunderstorms increases. I will also send out a Doodle poll for this.

Please let me know if you have any questions or need additional information. Rob.

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
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Atlanta, GA 30345
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(f) 404/679-7081
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www.fws.gov

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From:	Johnson, Bruce
To:	Cassler, Constance
Cc:	Mcdonald, Kenneth; Tom Ostertag (tom.ostertag@myfwc.com); Powell, Brian; Halupa, Paula; Schubert, Steve; Peterson, Mary; Marla Hamilton; Dryden, Kim; Shindle, David B; Landrum, Elizabeth
Subject:	Eastern Collier MSHCP; revised Chapters 1-3
Date:	Tuesday, October 24, 2017 9:26:13 AM
Attachments:	ECMSHCP_Chapter_1_submitted_20171024.pdf ECMSHCP_Chapter_2_submitted_20171024.pdf ECMSHCP_Chapter_3_submitted_20171024.pdf
Importance:	High

Connie,

Please find attached the first three revised chapters for the Eastern Collier Multiple Species HCP. Per Ken McDonald's request, I have copied the species leads on this email, so they may have the chapters as they become available. Tom Ostertag (FWC) is also copied so that FWC staff can review the chapters.

We are currently in the process of revising and compiling the remaining chapters, and will submit them as they are completed over the next few weeks. If you have any questions, please contact me at your convenience.

Best Regards,
Bruce

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From: Kelso, Charles
To: Cassler, Constance; Warren, Ken; Hinzman, Roxanna; Robert M SAJ Tewis
Subject: ECMSHCP DEIS website
Date: Thursday, February 1, 2018 9:03:42 AM
Importance: High

FYI,

The DEIS website is down. This happened because the website manager's (AECOM) contract with the Applicants expired December 22, 2017.

--
Chuck Kelso
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1. INTRODUCTION AND BACKGROUND

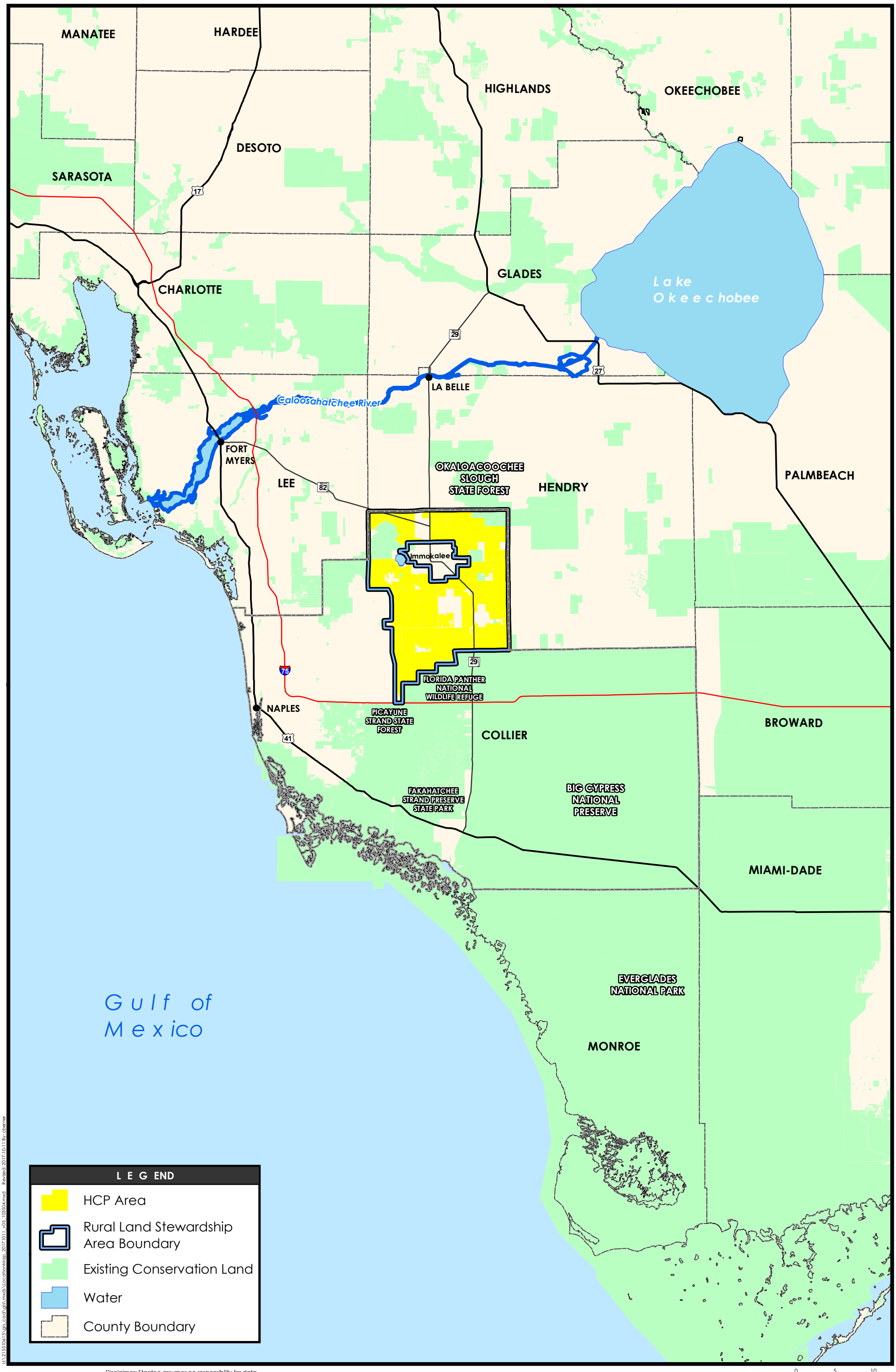
1.1 OVERVIEW/BACKGROUND

Southwest Florida encompasses a variety of urban, agricultural, and natural landscapes that support, among other things, residential, commercial, and public activities, food production, recreation, natural ecosystem functions, and wildlife. Collier County, located west of the Everglades and south of the Caloosahatchee River (Figure 1-1), has experienced rapid human population growth over the past several decades, while simultaneously witnessing the dedication of vast expanses of natural areas to conservation as State and Federal lands. Over two-thirds of Collier County's land area is currently in conservation status, with over 877,000 of the county's 1,300,000 acres protected (FNAI 2014a).

The Federal preserves within Collier County include the Big Cypress National Preserve (BCNP), the Florida Panther National Wildlife Refuge (FPNWR), the Ten Thousand Islands National Wildlife Refuge (TTINWR), and the western coastal portions of Everglades National Park (ENP). State conservation lands within the County include the Fakahatchee Strand State Preserve (FSSP), the Picayune Strand State Forest (PSSF), the Okaloacoochee Slough State Forest (OSSF), and extensive portions of the Corkscrew Regional Ecosystem Watershed (CREW). In addition, the National Audubon Society maintains approximately 13,000 acres of conservation lands in Collier County, comprised of the Corkscrew Swamp Sanctuary and nearby lands.

These Federal and State preserves were generally established to protect vast tracts of Southwest Florida's diverse natural ecosystems, which harbor a wide variety of plants and wildlife, including many species listed as endangered or threatened under the Endangered Species Act, 16 U.S.C. §§ 1531 *et seq*. (ESA or Act), protected by the State of Florida, or both. Among these listed species, the Florida panther (*Puma concolor coryi*) represents a major "focal species," meaning that conservation activities directed toward conserving the panther also promote multiple aspects of regional biodiversity conservation (Lambeck 1997; Noss 2007). The public conservation lands within Collier County protect many species that have limited localized distributions, home ranges, and/or dispersal distances (e.g., red-cockaded woodpeckers; rare orchids; Big Cypress fox squirrels), but the Florida panther utilizes habitats and establishes home ranges on a landscape scale that extends well beyond the boundaries of the existing public conservation lands.

The role of private lands for sustaining the Florida panther has been addressed repeatedly in the scientific literature for over 25 years (e.g., Belden et al. 1988; Maehr 1990; Logan et al. 1993; Main et al. 1999; Beier 2009). Beier et al. (2003; 142) stated "it is certainly true that private lands are essential to security of this population, and that conserving these lands *will require active support* from water management districts, Seminoles, and private landowners." (italics added.) The most recent panther annual monitoring report (FWC 2016, p. 15) stated that "[c]onserving panther habitat on private lands is essential for advancing panther recovery throughout its range." Scientific literature on the panther contains numerous discussions related to the development and implementation of private-landowner incentives for preserving and maintaining panther habitat as a valuable tool that is needed to complement public land acquisition and management (Logan et al. 1993; Evans 1994; Maehr 1997;



U:\215510615\gis\mxds\LocationMap_20171011_v05_I03504.mxd Revised: 2017-10-11 By: cbarner

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FIGURE 1-1

Eastern Collier MSHCP Location Map

November 2017

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0 5 10 Miles

N

Kreye and Pienaar 2015). However, to date, the types of incentives offered to private landowners, and the conservation funding available to State and Federal agencies to consistently engage private landowners, have been limited and largely ineffective.

Since 1981, State and Federal wildlife biologists have captured over 243 Florida panthers in Southwest Florida, and fitted them with radiotelemetry collars and, more recently, geographic positioning system (GPS) collars (FWC 2016). The location data provided by these collared panthers have helped to define the "core population area" for the species (USFWS 2002a, Figure 37) and general patterns of habitat utilization throughout the panther's range (see Section 4, Florida Panther). While the majority of the core population area lands are currently protected within public conservation lands, including the BCNP, FPNWR, and FSSP, sizable portions of the core population area extend onto private lands in eastern Collier County and southern Hendry County that adjoin these public lands. The panther radiotelemetry and GPS data also reveal regular utilization of native habitats within two regional flowway systems in eastern Collier County (Okaloacoochee Slough and Camp Keais Strand), and sporadic utilization of extensive nearby agricultural areas.

Scientific literature on the Florida panther indicates that existing public conservation lands alone are insufficient for viable long-term conservation of the Florida panther's core population (USFWS 2002a; Kautz et al. 2006). There is broad-based agreement among Federal and State wildlife biologists, academic conservation researchers, a variety of non-governmental organizations (NGOs), and a group of rural property owners, that the engagement and active support of private landowners is essential to landscape-scale conservation efforts designed to address the panther's ecological needs.

Given the potential for privately-held native habitats within eastern Collier County to benefit the conservation of the Florida panther, a Habitat Conservation Plan (HCP) can provide a valuable mechanism for achieving permanent protection of the landscape-scale features that support panther ecology. The proposed HCP would also provide conservation benefits for other species that occur within the lands proposed to be covered by the HCP.

The U.S. Fish & Wildlife Service's (USFWS) "Habitat Conservation Planning and Incidental Take Permit Processing Handbook" (USFWS and NMFS 2016, hereinafter "HCP Handbook," at 1-2) speaks to the type of situation that exists in eastern Collier County, and advocates striking a balance between agriculture, economic development, and species conservation:

> Congress intended the HCP program to address listed and at-risk species in an ecosystem context, generate long-term commitments to conserve such species, and deliver regulatory assurances to project proponents. Congress also envisioned the HCP program as an opportunity to establish "creative partnerships" between the public and private sectors and State, municipal, and Federal agencies to conserve endangered and threatened species and their habitats (H.R. Rep. No. 97-835 (1982)). . .. Congress intended the HCP program to function not only to authorize incidental take, but also as a process to integrate non-Federal development and land-use activities with conservation goals, resolve conflicts between protection of listed species and economic activities on non-Federal lands, and create a climate of partnership and cooperation.

> In that spirit, the Services should encourage permit applicants and partners to use Congress' intent as the foundation for working together to develop an HCP. Collaboration, flexibility, ingenuity, innovation, and thoughtful planning are key to developing effective HCPs and resolving complex and controversial issues that may arise.

Indeed, the HCP Handbook notes that "[a]lthough some listed species are located on wildlife refuges, national parks, military bases, and other Federal lands, the majority of them are on non-federal lands[, and for that reason,] [t]he Services and other Federal agencies cannot recover those listed species alone." (HCP Handbook at 2-5.) The benefits of protecting private lands in eastern Collier County for the Florida panther are well documented (see Beier et al. 2003 for a literature review), and this HCP represents a viable means for achieving permanent protection of native panther habitats. Thus, the purpose of this HCP is to create a long-term balance among the complementary goals of environmental preservation, species protection, continued agricultural use of lands, and economic development. The Plan will achieve these goals through a combination of economic incentives and regulatory mechanisms, and will provide a balanced, sustainable future for the region. Because multiple species in eastern Collier County will be covered by this HCP, the plan is named the Eastern Collier Multiple Species Habitat Conservation Plan (ECMSHCP, or the Plan).

1.2 THE EASTERN COLLIER MULTIPLE SPECIES HABITAT CONSERVATION PLAN

This Plan provides a detailed, long-term, science-based methodology for the permanent protection of habitats for the endangered Florida panther and other species within the lands proposed to be covered by the HCP, referred to herein as the HCP Area (depicted in Figure 2-1, *infra*). The Plan is required to support the applications submitted by several Collier County landowners for Incidental Take Permits (ITPs) under Section 10(a)(1)(B) of the ESA. 16 U.S.C. § 1539(a)(1)(B).[1] The Plan provides a long-term (50-year) conservation and land-use planning framework for 151,779± acres[2] in Southwest Florida (Figure 1-1).

The eastern portions of Collier County comprise a variety of land uses, including, among other things, crop production, ranching, native vegetation communities, urban areas, and public lands (see Section 3, Environmental Setting). The ultimate planning goal for this region is to ensure a long-term compatible balance of conservation, continued agricultural land use, and economic development that contributes to the protection, survival, and recovery of the species covered by the Plan.

This Plan arose from a collaborative effort among property owners in eastern Collier County, NGOs, and Federal and State wildlife agencies, to address long-term planning issues related to the conservation of the Florida panther. As explained above, the landscape-scale mosaic of habitats that support the Florida panther also support many other federal and state-listed species, allowing for a multi-species approach

[1] Citations hereinafter are only to the Act.

[2] For the purpose of this Plan document, geographic information system (GIS) acreages are the best currently available estimates. Precise acreages will be determined during ITP processing.

for the Plan and ITPs. The Plan emphasizes the preservation of large expanses of native panther habitats, in a way that maintains landscape-scale habitat connectivity and facilitates panther utilization and movement.

The Plan covers eight federally-listed species: five avian species, one reptile species, and two mammal species. The Plan also covers three species – the gopher tortoise, eastern diamondback rattlesnake, and gopher frog – that are being considered for listing but are not currently federally-listed. The gopher tortoise is currently designated as candidate species for federal listing within its Florida range; the eastern diamondback rattlesnake and gopher frog are currently proposed for federal listing. The Plan also covers eight other non-federally-listed species that are currently listed as threatened by the State of Florida. All species to be covered by the Plan are included, along with their listing status, in Tables 1-1, 1-2, and 1-3, below (the Covered Species).

Table 1-1. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: federally-listed species.

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS[1]
BIRDS		
Florida scrub jay	*Aphelocoma coerulescens*	T
Northern crested caracara	*Caracara cheriway*	T
Wood stork	*Mycteria americana*	T
Red-cockaded woodpecker	*Picoides borealis*	E
Everglade snail kite	*Rostrhamus sociabilis plumbeus*	E
REPTILES		
Eastern indigo snake	*Drymarchon corais couperi*	T
MAMMALS		
Florida bonneted bat	*Eumops floridanus*	E
Florida panther	*Puma concolor coryi*	E

[1] Federal status abbreviations (as of Aug. 2017): T -Threatened; E – Endangered

Table 1-2. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: candidate species and species under review for Federal listing.

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS[1]
REPTILES		
Gopher tortoise	*Gopherus polyphemus*	C
Eastern diamondback rattlesnake	*Crotalus adamanteus*	Under Review
Gopher frog	*Lithobates capito*	Under review

[1] Federal status abbreviations (as of Aug. 2017): C- Candidate species for federal listing; the gopher tortoise is also listed as Threatened by the State of Florida.

Table 1-3. Covered Species for the Eastern Collier Multiple Species Habitat Conservation Plan: species listed by the State of Florida.

COMMON NAME	SCIENTIFIC NAME	STATE STATUS[1]
BIRDS		
Burrowing owl	*Athene cunicularia*	T
Florida sandhill crane	*Antigone canadensis pratensis*	T
Little blue heron	*Egretta caerulea*	T
Roseate spoonbill	*Platalea ajaja*	T
Southeastern American kestrel	*Falco sparverius paulus*	T
Tricolored heron	*Egretta tricolor*	T
MAMMALS		
Big Cypress fox squirrel	*Sciurus niger avicennia*	T
Everglades mink	*Neovison vison evergladensis*	T

[1] State status abbreviations (as Aug. 2017): T –Threatened

The USFWS (2002) characterized the long-acknowledged role of private lands for Florida panther conservation as follows:

> Regional conservation planning also recognizes the importance of the ecological interactions among native ecosystems, agricultural areas, and developed lands and attempts to design conservation areas and strategies that maximize compatibility and effectively conserve natural resources including biodiversity and important ecosystem processes.
>
> A regional landscape strategy for the Florida panther in south Florida is dependent on two complementary aspects: science-based management of existing and potential future public lands consistent with panther conservation, and cooperation with private landowners that currently manage thousands of acres of panther habitat (Maehr 1990).

Ultimately, the Plan and ITPs allow participating property owners to plan and coordinate future permitted activities within defined areas in the HCP Area (the areas designated for Covered Activities, depicted on Figure 2-1, *infra*), enabling integrated and more effective conservation planning, avoiding piecemeal development scenarios, supporting effective long-term cumulative impact analyses, and simplifying future individual consultations between the USFWS and other Federal agencies. These goals are consistent with the longstanding consensus that private lands constitute a key component for successful Florida panther conservation, and that the active cooperation of private property owners is an essential component.

1.3 PERMIT APPLICANTS AND PERMIT DURATION

The ITP applicants are a group of landowners known as the Eastern Collier Property Owners (ECPO). Collectively, ECPO members own approximately 90 percent of the private land within eastern Collier County (see Section 1.7 and Figure 2-1), as well as other lands in South and Central Florida outside the eastern Collier County area. The ECPO applicants and eventual permit holders would be (in alphabetical order): Alico, Inc.; Barron Collier Investment, Ltd.; Collier Enterprises Management, Inc.; Consolidated Citrus Limited Partnership; English Brothers Partnership; Half Circle L Ranch, LLP; Heller Bros. Packing Corp.; John E. Price, Jr. Trust; Pacific Land, Ltd.; and Sunniland Family Limited Partnership.

The duration of the ITPs will be 50 years. This is the time period necessary to complete planned and/or foreseeable permitted activities within the portion of the HCP Area designated for Covered Activities, and to fully enact conservation provisions associated with the Plan elements and ITP conditions.

1.4 PERMIT BOUNDARY/HCP AREA

The HCP Area is located in the northeastern corner of Collier County, and surrounds the Town of Immokalee (Figure 1-1). The HCP Area is located within the boundaries of the RLSA (see Figure 2-1), and comprises approximately 151,779 acres of lands owned by the applicants, which do not include existing or future County and State roads within eastern Collier County. Over 20,000 acres of non-ECPO private property are located within the RLSA. Because the applicants do not own these lands, they are outside the HCP Area. These non-ECPO lands may later be voluntarily incorporated into the Plan through

Certificates of Inclusion, and are therefore depicted in Figure 2-1 as lands "Eligible for HCP Inclusion (Non-ECPO Lands)" (see Section 2.4). The major existing and traditional land uses and land cover within the HCP Area include agriculture, ranching, native vegetation communities, residential and commercial development, and earth mining.

As shown on Figure 1-1, the HCP Area borders the FPNWR and BCNP to the south, public conservation lands that support the core population area for the Florida panther. The HCP Area also borders the OSSF to the north and east, which is heavily utilized by panthers and serves as a landscape linkage in a panther dispersal corridor leading to the Caloosahatchee River and then northward into Central Florida. To the west are the privately owned 13,000-acre Audubon Corkscrew Swamp Sanctuary, which harbors the largest breeding colony of threatened wood storks in South Florida, and the publicly-owned CREW conservation lands. The HCP Area therefore occupies a strategic area that, if properly planned and managed, can function as an area of increased value to the Florida panther and other species, featuring important, landscape-scale habitat linkages ("critical linkages") in perpetuity (Oetting et al. 2014). The avoidance, minimization, mitigation, and management actions proposed in the Plan and specified in the ITPs would promote and maintain these linkages.

The approximately 151,779-acre HCP Area – all of which is owned by ECPO members – occupies approximately 90 percent of the private lands within eastern Collier County. As described in greater detail in Chapter 2, the Plan designates 50,175 acres of lands, primarily within previously-cleared agricultural areas, where up to 45,000 acres of Covered Activities may occur. The remaining approximately 107,000 acres, which include existing regional wildlife corridors that allow for wildlife movement among existing public conservation lands, will be permanently preserved under the Plan. Further enhancing the ratio of preserved areas to development, the 5,027-acre Town of Ave Maria will be included in the 45,000 acres where Covered Activities may occur, even though Federal permitting and Section 7 consultation has been completed for the Town of Ave Maria, reducing the maximum acreage of Covered Activities attributable to the ITPs to 39,973 acres. There are two parcels of land located within the RLSA (and the outer boundaries of the HCP Area) – the Hogan Island Quarry and the Immokalee Sand Mine – that are owned by ECPO members but are not included in the HCP Area or as Covered Activities because the Federal permitting process for each, including Section 7 consultations, is either already complete or is expected to be complete by the time the ITPs are issued (depicted in Figure 2-1 as "Prior Federal Permitting Initiated"). Nonetheless, these two parcels are accounted for in the overall configuration and planning for wildlife corridors and other ecologically beneficial features of the Plan.

1.5 SPECIES TO BE COVERED BY PERMIT

The federally-listed species to be covered under the ITPs are listed in Table 1-1. These species are included in the online USFWS database of federally-listed and candidate species for Collier County (Information for Planning and Consultation database at: https://ecos.fws.gov/ipac/location/index). A candidate species for federal listing in Florida, the gopher tortoise (*Gopherus polyphemus*), is also included in the Plan, along with two species that are proposed for federal listing, the eastern diamondback rattlesnake (*Crotalus adamanteus*) and the gopher frog (*Lithobates capito*) (Table 1-2).

Section 8.1.4 details the measures to be taken if, subsequent to issuance of the ITP, additional species become federally-listed within the HCP Area. Table 1-1 excludes those federally-listed species that occur exclusively in marine environments, coastal ecosystems (beaches, mangroves, nearshore environments), and other environments not present within the HCP Area. Only one plant species within Collier County is currently designated as a proposed species for listing – Florida prairie clover (*Dalea carthagenesis floridana*) – but the rocklands, costal uplands, and marl prairies that the plant inhabits are not found within the HCP Area. Therefore, no plant species are included in the Covered Species.

In addition to the federally-listed Covered Species, the Plan will cover eight species currently listed by the State of Florida as "Threatened" (Table 1-3), based on recent Biological Status Reviews performed by the Florida Fish and Wildlife Conservation Commission (FWC). All of the State-listed species in Table 1-3 will benefit directly from the Plan, because each of these species utilizes the same or similar habitat(s) as the federally-listed Covered Species. Given the large expanse of the areas designated under the Plan for Preservation/Plan-Wide Activities and Very Low Density Use (see Section 2, Plan Description), other game and non-game species that are not currently listed or recommended for listing by State or Federal agencies and that are not covered by the Plan – such as the Florida black bear – will also benefit from these conservation actions.

For the status, distribution, habitat utilization, and occurrence of each Covered Species within the HCP Area, please refer to Section 4 (Florida Panther) and Section 5 (Other Covered Species) of this document.

1.6 REGULATORY FRAMEWORK

1.6.1 Federal Endangered Species Act

Section 9 of the Act and Federal Regulations enacted pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." ESA § 3(19). Harm is further defined by the USFWS to include significant habitat modification or degradation that results in death or injury to listed species "by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Harass is defined as intentional or negligent actions that create the likelihood of injury to listed species by annoying them "to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering." Incidental take is defined as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." 50 CFR § 17.3.

Pursuant to section 11(a) and (b) of the Act, any person who knowingly violates section 9 of the Act or any permit, certificate, or regulation issued pursuant to section 9, may be subject to civil penalties of up to $25,000 for each violation or criminal penalties up to $50,000 and/or imprisonment of up to one year.

Individuals and State and local agencies proposing action that may result in the take of federally-listed species may apply for an ITP under section 10(a)(1)(B) of the Act to maintain compliance with the law. Such permits are issued by the USFWS when take is not intentional, and is incidental to otherwise legal activities. An application for an ITP must be accompanied by an HCP. Under section 10(a)(1)(B) of the

Act, the anticipated take to be authorized must be incidental, the applicant must "minimize and mitigate the impacts of" take "to the maximum extent practicable," the authorized take must not "appreciably reduce the likelihood of the survival and recovery of the species in the wild," and adequate funding for the plan must be ensured.

Section 7 of the Act requires Federal agencies to ensure that their actions, including issuing permits, are "not likely to jeopardize the continued existence of [federally-listed] species or result in the destruction or adverse modification of habitat of such species. ESA § 7(a)(2). "Jeopardize the continued existence of" pursuant to 50 CFR § 402.02, means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." Issuance of an incidental take permit under section 10(a)(1)(B) of the Act by the USFWS is a Federal action subject to section 7 of the Act. Under section 7, the USFWS is required to consult with itself (i.e., conduct an internal consultation), as well as other Federal agencies.

Under ESA section 7, cumulative effects are effects of future State or private actions that are reasonably certain to occur in the action area, which is defined by the influence of direct and indirect impacts of the Federal action.

1.6.2 The Section 10(a)(1)(B) Process: HCP Requirements and Guidelines

Although the Section 10(a)(1)(B) process is iterative and often non-linear, the process includes four primary phases: (1) pre-application; (2) development of the HCP and environmental compliance documents; (3) application processing, permit decision-making, and issuance of the ITP; and (4) the post-issuance phase, including implementation of the HCP and compliance monitoring. HCP Handbook at 2-1.

During the first phase, USFWS provides guidance to prospective applicants, and determines the level of analysis required under the National Environmental Policy Act (NEPA)based on the nature and scale of the HCP.

During the second phase, the applicant prepares a plan that integrates the proposed project or activity with the protection of listed species. An HCP submitted in support of an ITP application must include the following information:

- impacts likely to result from the proposed taking of the species for which permit coverage is requested;
- measures that will be implemented to monitor, minimize, and mitigate impacts; the funding that will be made available to undertake such measures; and the procedures to deal with unforeseen circumstances;
- a description of alternative actions that the applicant considered, and an explanation of why those alternatives were not selected; and

- additional measures USFWS may require as necessary or appropriate for purposes of the plan.

HCP Handbook at C-1. The HCP development phase concludes and the permit processing phase begins when a complete application package is submitted to the appropriate permit-issuing office. A complete application package consists of (i) a draft HCP, (ii) an Implementing Agreement (IA), if applicable, (iii) a permit application, and (iv) payment of a $100 fee by the applicant(s). HCP Handbook at 2-13. USFWS is required to publish a Notice of Availability of the HCP package in the Federal Register and allow for public comment. The USFWS also prepares an Intra-Service Section 7 Biological Opinion and a Set of Findings, which evaluates the Section 10(a)(1)(B) permit application in the context of permit issuance criteria (see below). An Environmental Action Statement, Environmental Assessment, or Environmental Impact Statement serves as the USFWS's record of compliance under NEPA, and is subject to public comment. As noted in the Executive Summary, USFWS published a notice of intent to prepare an EIS in the Federal Register in March 2016 (81 Fed. Reg. 16,200 (March 25, 2016)), held a public scoping meeting on April 12, 2016, and has begun drafting an EIS analyzing the proposed ITPs.

During the third phase, USFWS oversees the public review process and undertakes decision-making. This phase includes development by USFWS of a document that describes USFWS's findings and provides a basis for USFWS's permitting decision. The third phase ends with USFWS's permit issuance decision. Pursuant to ESA § 10(a)(1)(B), USFWS will issue an ITP if the following statutory criteria for issuance of the permit are met:

- the taking will be incidental;
- the impacts of incidental take will be minimized and mitigated to the maximum extent practicable;
- 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;
- the applicant will provide any additional measures that the Secretary of the Interior requires as being necessary or appropriate; and
- the Secretary of the Interior has received any other assurances, as may be required, that the HCP will be implemented.

The public is notified of permit issuance by publication in the Federal Register.

During the fourth phase, the permittee and other responsible entities implement the Plan, and the USFWS monitors the permittee's compliance with the Plan as well as the long-term progress and success of the Plan.

1.6.3 National Environmental Policy Act

The purpose of NEPA is two-fold: to ensure that Federal agencies examine environmental impacts of their actions (in this case, deciding whether to issue an ITP) and to inform and involve the public. NEPA serves as an analytical tool to consider direct, indirect, and cumulative impacts of the proposed action and alternatives to help the USFWS decide whether to issue an ITP. The USFWS will complete a NEPA analysis as part of the ITP application process.

1.6.4 National Historic Preservation Act

All Federal agencies are required to examine the cultural impacts of their actions (e.g. issuance of a permit). This may require consultation with the State Historic Preservation Office and appropriate American Indian tribes. All ITP applicants are requested to submit a Request for Cultural Resources Compliance form to the USFWS. To complete compliance, the applicants may be required to contract for cultural resource surveys and possibly provide mitigation to address the impacts on cultural resources, if any, of authorizing incidental take of listed species.

1.7 COUNTY-LEVEL PLANNING AND ZONING

The Plan builds upon, and closely integrates with, Collier County's planning and zoning framework for lands within eastern Collier County. This section briefly summarizes the recent history of planning and zoning in eastern Collier County, the evolution of the County's innovative program to protect natural resources and agriculture while allowing for economic development, how that program underpins several key elements of the Plan, and how the Plan builds on the RLSP to provide significant conservation value beyond what is possible under the RLSP alone.

1.7.1 Background

In the late 1990s, the State of Florida challenged Collier County's comprehensive plan, contending that the required conservation elements would not sufficiently protect natural resources (including listed species and their habitats). Environmental NGOs intervened in support of the State. The challenge was upheld by a Florida administrative law judge in a March 1999 ruling. In June 1999, Governor Jeb Bush issued Final Order AC-99-02, which directed Collier County to perform an assessment of 195,000 acres in eastern Collier County (known as the "Immokalee Area Study"). Specifically, the order required that the assessment address long-term planning issues in order to balance natural resource protection, agriculture, and economic development within the 195,000-acre area.

Between 1999 and 2002, the applicants collaborated with Collier County, environmental NGOs, consultants, local citizens, and State agencies to complete the assessment, and to develop new comprehensive planning strategies and policies that would satisfy the requirements of the State's Final Order. The initial efforts involved a thorough compilation, mapping, and synthesis of natural resource and land use data for the 195,000-acre area, to serve as an objective and verifiable basis for planning and natural resource protection. The datasets collected through this process were entered into GIS to

allow for spatial analyses, data visualizations, data updating, and reporting. A report synthesizing this information was submitted to Collier County in December 2000.

Between 2000 and 2002, stakeholders utilized the GIS data to develop and test various scenarios for meeting the requirements of the Final Order. The stakeholders realized that any attempt to simply impose restrictive new zoning regulations would seriously compromise any chance of creating a broadly supported and viable long-term plan for the area. Collaborative stakeholder engagement likely would have ceased as a result of new zoning restrictions that would have effectively imposed the most restrictive burdens on those property owners who possessed the highest value natural resources, preventing those property owners from realizing the economic value of their land, including the benefits of future development and continued agricultural land use. Moreover, State of Florida statutes require that any such change that compromises private property vested rights (e.g., "downzoning" property) be considered a taking that must be compensated economically by the government entity imposing the change (Chapter 70, Florida Statutes). In short, simply imposing new zoning and/or land use regulations in eastern Collier County would likely have been counterproductive, logistically difficult, subject to protracted legal challenges, and ultimately unworkable.

As various scenarios were considered (with a 2002 Final Order deadline looming), the stakeholders understood that any effort to successfully achieve a long-term balance between agriculture, natural resource conservation, and economic development must recognize the potential economic value of *each* of these activities, and be available to all property owners within the 195,000-acre area. A breakthrough occurred when the parties concluded that economic development, primarily master-planned residential and commercial development, must be directly and quantifiably tied to permanent conservation benefits that could achieve the desired balance for future land uses. Ultimately, this collaborative process resulted in a system for calculating "credits" generated by protecting environmentally sensitive lands, and established procedures for calculating how many credits would be required to entitle a proposed development. Although the system possessed some similarities to Transfer of Development Rights (TDR) programs, this system provided more economic and regulatory incentives to protect the highest-quality natural environments, and allowed more flexibility to property owners for relinquishing various land-use rights. The resulting system was carefully calibrated, using GIS, to generate a total number of credits that could entitle a maximum development footprint within the 195,000-acre area. The plan was designed as a "closed system," so a maximum development footprint would leave the balance of the area as agricultural lands and native habitats.

This credit system became the basis for new planning policies and amendments, and was codified as the Collier County Rural Land Stewardship Program (RLSP).[3] The RLSP, approved by Collier County and the State of Florida in 2002, offers landowners a voluntary alternative to existing zoning, at the option of the

[3] The acronym "RLSP" is used throughout this document to refer to the Rural Land Stewardship Program and its associated elements. The Collier County Land Development Code (LDC), which implements the RLSP, utilizes the acronym "RLSA" to refer to the Rural Land Stewardship Area, the geographic area within which the County's RLSP policies and codes apply.

property owner, and provides for a more strategic and environmentally sensitive balance between conservation and development. Because entry into the program is purely voluntary for each property owner, no downzoning or property rights issues are triggered. As of this writing, the RLSP has operated continuously for 15 years, and has proven successful in meeting the policy goals for balanced economic development, agricultural land use, and permanent protection of environmentally sensitive lands.

1.7.2 Rural Land Stewardship Program (RLSP) Basics

Prior to the 2002 adoption of the RLSP, the zoning in eastern Collier County was (and to this day remains) one dwelling unit per five-acre area. This zoning plan can result in low-density growth patterns that fragment habitat, create inefficiencies in infrastructure and services, and generally complicate effective conservation actions. These low-density patterns are found immediately west of the HCP Area in the area known as “Golden Gate Estates” (see Figure 2-1, aerial imagery on left side of figure).

The RLSP did not change the underlying zoning of eastern Collier County, for the reasons outlined in the previous section. Rather, the RLSP operates as a zoning overlay, where the standards and criteria defined for the RLSP are applicable only if a property owner within the RLSA voluntarily elects to enter the program. Property owners may elect to enter the program when they wish to develop their property at densities greater than one dwelling unit per five acres, when they wish to set aside environmentally sensitive lands for protection, when they wish to receive credit for permanently limiting land uses to agriculture, and/or when they want to undertake other allowable activities incentivized by the program.

The RLSP creates incentives for property owners to protect environmentally sensitive lands (sending areas) permanently, in exchange for “stewardship credits” that can be used, traded, or sold to entitle compact forms of development (receiving areas) at higher densities than baseline zoning. RLSP policies mandate that compact development at higher densities can only occur within those areas that have been mapped as having limited natural resource values (i.e., previously cleared areas), and then only through the use of stewardship credits. Stewardship credits are only recognized after a perpetual “Stewardship Easement” is recorded for the land parcel being protected. The easement runs with the land in favor of Collier County and a State agency such as the Florida Department of Agriculture and Consumer Services (FDACS), the Florida Department of Environmental Protection (FDEP), or the South Florida Water Management District (SFWMD).

Under the RLSP, the local approval process for sending areas and receiving areas involves applicant submittal of a technical report that characterizes the sending area’s natural resources and credits generated, a rigorous application review by county planning and environmental staff, issuance of a staff report to the Collier County Board of County Commissioners, a public hearing before the commissioners (with a minimum 15 days’ notice in local newspapers), and majority approval of a resolution by the Board. Easements are recorded in the official County records after Board approval.

For property owners who enter the RLSP and seek to develop land at densities greater than existing zoning, Collier County will not issue any development approvals until the owner obtains (generates or purchases) the quantity of stewardship credits necessary to entitle the development. In essence, this

mechanism ensures that the construction of higher-density development (receiving areas) cannot commence until after the associated sending areas are under permanent protection with recorded easements.

The stewardship credit system was calibrated in a manner that protects several acres of native habitat and/or open space in exchange for one acre of higher-density development (the exact ratio depends upon habitat quality and other environmental factors). Implementation of the RLSP is intended to preserve the large regional wetland flowway systems and large blocks of interconnected upland and wetland native habitats that occur within the program area. Skeptics of the RLSP questioned whether the program would protect environmentally sensitive lands as planned. To date, however, over 50,000 acres have been designated for protection under the RLSP, including the vast majority of one regional flowway, and 20,000 acres of high-value panther habitats directly adjacent to the FPNWR and BCNP. A five-year review of the RLSP completed in 2009 concluded that the program was meeting the policy objectives it sought to achieve (Collier County 2009).

The five-year review resulted in a recommendation that residential and commercial development be capped at 45,000 acres within the RLSA. In order to reach that development cap, the balance of the HCP Area (approximately 107,000 acres, or 70 percent) would be protected permanently, in return for sufficient stewardship credits to entitle the development. Another recommendation was to increase the incentives for agricultural preservation, in order to preserve open space, agriculture, and the rural economy. This landscape-scale mosaic of native habitats and agricultural uses currently supports the Covered Species, as well as other species.

Since 2002, the RLSP policies have been implemented through the Collier County Land Development Code, which provides the detailed standards, procedures, protection mechanisms, site design criteria, and related program elements. The documentation may be accessed online at: https://library.municode.com/fl/collier_county/codes/land_development_code; see Section 4.08).

Several aspects of the RLSP provide assurance that the protection of environmentally sensitive lands (sending areas) will precede any local approvals to begin development activities within designated receiving areas:

- Lands within the RLSA cannot be developed at densities greater than existing zoning (1 dwelling unit per 5 acres) unless a property owner voluntarily enters the program;
- Stewardship credits can only be generated (and officially recorded in the County ledger) through the designation of environmentally sensitive lands as sending areas, which requires the recording of perpetual easements over those lands;
- A receiving area (and its associated development plans) cannot be approved by Collier County unless/until the applicant can demonstrate that it possesses a sufficient number of stewardship credits;

- Therefore, no construction activities within receiving areas may commence until the Collier County staff and the Board of County Commissioners have verified that the required stewardship easements over the associated sending areas have been recorded; that the applicant possesses a sufficient number of credits to entitle the development; and the receiving area development plans are in compliance with the Collier County Land Development Code, Section 4.08.

- Stewardship credits can only be generated and utilized within the RLSA. The system was initially calibrated to limit the extent of potential future development. Current proposed RLSP amendments would enforce a strict cap for receiving areas of 45,000 acres total, and the system would be recalibrated to achieve that policy goal.

Many factors provide assurance that the RLSP will remain in place through the 50-year term of the ITP:

- The RLSP has been in place for over 15 years, and the program is working as designed;

- The RLSP is considered a great planning success by Collier County commissioners, staff, and RLSP stakeholders;

- The first development under the RLSP – the Town of Ave Maria – brought mixed-use economic development to the area and preserved over three acres of environmentally valuable lands for every acre of development;

- The tax base for Collier County is increased by the new developments, and the sending areas (placed under perpetual easements) remain on the County tax rolls;

- All of the requirements of the 1999 Final Order are satisfied through the adoption and implementation of the RLSP.

The RLSP is unlikely to be changed substantially or replaced. If the RLSP were discontinued, all of the benefits listed above would cease. The county's comprehensive plan would no longer be in compliance with State regulations, and new natural resource protection measures would need to be developed for eastern Collier County (a process that spanned three years until the RLSP was created). There would be a high likelihood of litigation resulting from any new comprehensive plan element for the area, brought by property owners and/or third-party challenges. In short, the RLSP is working so well, and the downsides of changing it substantially are so great, that the probability of such change is exceptionally low.

1.7.3 Added Benefits of the Plan

The RLSP and the Plan work in concert through a combination of economic incentives and regulatory mechanisms to achieve a balanced, sustainable future for the region. The Plan builds upon the goals of the RLSP and increases substantially the conservation benefits that are possible under the RLSP to create a long-term balance between environmental preservation, listed species protection, agriculture, and economic development.

The Plan will integrate with and reinforce the RLSP elements addressed in the section above. The permit holders would be the ECPO members listed in Section 1.3. Property bordering the HCP Area owned by other entities could become part of the Plan through Certificates of Inclusion, if acceptable to USFWS (see Section 2.4). The Plan itself limits future development to those lands depicted on Figure 2-1 as "Covered Activities," and caps that development at 45,000 acres. Additionally, under the terms of the ITP, any development within the HCP Area must provide compensation for panther habitat loss in the form of panther habitat units (PHUs; see Chapter 4). The Plan verifies that sufficient PHUs can be generated by the 107,000 acres set aside for protection in perpetuity, and all of those PHUs will be required as compensation if the 45,000-acre cap is reached.

In addition, the Plan will use the framework provided by the RLSP to provide benefits that extend well beyond those that would be possible through the RLSP alone. These benefits include the following:

- Landscape-level planning that will result in greater conservation benefits than would exist under uncoordinated participation in the RLSP, including ensuring preservation of regional wildlife habitat corridors that allow for movement of wildlife among existing public conservation lands in Southwest Florida;
- Incorporation and implementation of the Florida Panther Protection Program (FPPP)[4], a collaboration between ECPO and several leading conservation organizations that integrates a variety of programs, studies, and strategies to enhance and fund a science-based program "to better protect and manage the Florida panther in southwest Florida." (FPPP 2010).
- Creation and funding of the Marinelli Fund, which will be used for conservation activities that will benefit the Florida panther, as well as other wildlife;
- Collaboration and coordination with the Service and FWC; and
- Additional monitoring required under the ITPs that is not required under the RLSP.

The requested term of the ITPs – 50 years – will allow for planning, permitting and completion of contemplated or foreseeable development within the portion of the HCP Area designated for Covered Activities, and for implementation of conservation actions that benefit Covered Species in the portions of the HCP Area designated for Preservation/Plan-Wide Activities and Very Low Density Use.

[4] "The purpose of the Florida Panther Protection Program …is to facilitate the management and protection of panthers within the Enhanced Protection Area [i.e., RLSP/Plan area] by providing a contiguous range of preserved panther habitat in the Enhanced Protection Area to assist recovery through the use of buffering against panther-human interaction, locating and construction of panther crossings, and the protection, enhancement, restoration, including corridor enhancement or restoration, or acquisition of panther habitat demonstrated to be important to panther protection and management within the Enhanced Protection Area based upon a technical review and analysis of available data..." (excerpt from FPPP MOU between Rural Landowners and Conservation Organizations, June 2008).

1.8 SUMMARY OF ALTERNATIVES TO THE ECMSHCP

Chapter 10 of this document describes four basic alternatives considered by the applicants (ECPO), and the reasons why the Plan emerged as the preferred alternative. The four alternatives included: Existing Zoning (no HCP); the Proposed HCP (Plan); a Panther-Only HCP; and a Panther Review Team (PRT) HCP Configuration.

When assessing these four alternatives, it is useful to consider a 2006 academic study of statewide population growth and projected land use, and specifically the projected land use patterns for eastern Collier County. The "Florida 2060" report (Zwick and Carr 2006) utilized population projections from 2005-2060, the existing gross urban densities (as of 2005), and estimates of developable land (considering proximity of urban centers; road densities; and absence of wetlands) to model population distributions on 1-acre grid cells in GIS.

Figure 1-2 depicts the Florida 2060 data within the RLSP. In this modeled scenario, approximately 135,000 acres of land would be developed and populated. Note that the study did not take into account the 2002 Collier County comprehensive plan amendments that effectively limited some of this potential development. This 2060 scenario would impact most of the native habitat acreage in eastern Collier County, and would disconnect and fragment regional flowways and wildlife corridors.

The existing Collier County zoning within the HCP Area allows for one dwelling unit per five-acre area, and thus defines one baseline alternative to the Plan. Figure 1-3 illustrates the extent of potential development for the "Existing Zoning" alternative, using the same color scheme as Figure 1-2 to allow for visual comparisons. Under the existing program, over 90,000 acres of land within the RLSP area are designated as "Open" to allow potential development. Approximately half of this acreage could be developed if property owners voluntarily entered the RLSP and developed within receiving areas. Those owners who voluntarily chose not to enter the program and elected to develop at the existing 1:5 zoning could develop the other half of the "Open" lands, bringing the total development footprint (RLSP and existing zoning) to over 90,000 acres. This scenario would preserve the core of the regional flowways, large blocks of habitat, and wildlife corridors, but would preserve far less land and native habitats than the proposed HCP.

The proposed HCP (Plan), schematically depicted in Figure 2-1, occupies approximately 152,000 acres within the RLSA, and proposes up to 45,000 acres of development (see Chapter 2). The balance of the HCP Area, 107,000 acres, would be placed under perpetual easements that run with the land. The proposed HCP limits potential development, preserves the greatest land acreage, preserves the greatest extent of native habitats, and protects the existing flowways and wildlife corridors within the RLSP. The proposed HCP provides an integrated conservation plan for the Florida panther and eighteen other species on a landscape scale, while the other alternatives lack a long-term plan and would result in ad-hoc development patterns and mitigation.

The third alternative, a "Panther-Only HCP," would cover the same land area as the proposed HCP (Figure 2-1), but would only cover the Florida panther under the terms of the ITPs. The eighteen other

Covered Species would be evaluated by the relevant permitting authorities on a project-by-project basis, and conservation actions for those species would be determined for each project. While the panther would benefit from an integrated conservation plan under the ITPs, the other species would not be "Covered Species."

The "Panther Review Team (PRT) Configuration" alternative accommodated up to 45,000 acres of development, similar to the proposed HCP (see section 10.4). Although much of the potentially developable land area in this alternative overlaps with the proposed HCP (Plan), the PRT configuration proposed some additional area for preservation, additional buffers along the Camp Keais and Corkscrew systems, and different configurations for two panther corridors. However, the PRT alternative included non-ECPO lands outside the HCP Area in its analyses (see Figure 2-1 and Section 2.4). While those lands could eventually be included in the Covered Lands, they are not currently in the Plan. Additionally, the configuration of land ownership and landowner interests do not align with the PRT configuration, rendering the alternative impracticable.

In summary, the proposed Plan represents the preferred alternative and the best opportunity for perpetual preservation of habitats for the Florida panther and the eighteen other Covered Species. The existing zoning for the RLSP could result in a development footprint of over 90,000 acres, while the development footprint within the HCP Area would be limited to 45,000 acres. In comparing the proposed HCP to a "Panther-Only HCP," there are clear conservation and regulatory benefits to including the eighteen other Covered Species. Finally, although the PRT alternative proposed a similar development footprint as the proposed HCP, the PRT configuration includes non-ECPO lands outside of the HCP area, and does not align with land ownership patterns and landowner interest. The proposed HCP therefore represents the preferred and most practicable alternative.

1.9 CONCLUSION

The Plan furthers the goal of panther conservation, and conserves many other federally-listed and state-listed species, by working with USFWS to incorporate RLSP and FPPP program elements in a formal plan under Section 10 of the ESA. The RLSP and the Plan synergistically provide assurances at the local and federal levels that conservation measures will be implemented, and that a long-term balance of land uses will be achieved. Using the framework established by the RLSP, the Plan provides landscape-level planning and other benefits that extend well beyond that the RLSP could accomplish alone.

Once issued, the ITPs will specify the rights and responsibilities of all parties to the Plan, and legally bind the parties to its provisions. After several decades of panther research, meetings, agency outreach, and discussions, this Plan finally provides a viable science-based, legally binding mechanism for the realization of Florida panther habitat preservation on private lands, along with preservation of other Covered Species habitat, and a long-range vision for sustainable regional planning in eastern Collier County.

2. PLAN DESCRIPTION AND ACTIVITIES COVERED BY PERMIT

2.1 PLAN DESCRIPTION

The Plan provides a long-term (50-year) framework for the preservation and management of approximately 107,000 acres of privately owned land, located within the 151,779± acres of privately owned lands in eastern Collier County. The approximately 107,000 acres protected through the Plan – the lands that will ultimately be dedicated for Preservation/Plan-Wide Activities and Very Low Density Use at Plan completion (described in section 2.2 below and depicted in Figure 2-1) – comprise an ecologically important landscape-scale mosaic of habitats and land uses that support the Florida panther and seven other federally-listed species. These lands also support one candidate species for federal listing, two species that are under review for federal listing, and eight non-federally-listed species that are listed threatened by the State of Florida.[1]

The Plan conserves major regional wildlife habitat linkages, preserving habitat connectivity between the existing public conservation lands to the south of the HCP Area that are part of the panther's core population area, and between the public conservation lands and dispersal corridors to the north and east of the HCP Area. Specifically, these regional linkages connect the Big Cypress National Preserve (BCNP), Florida Panther National Wildlife Refuge (FPNWR), Fakahatchee Strand State Preserve (FSSP) and Picayune Strand State Forest to the Corkscrew Regional Ecosystem Watershed (CREW), Okaloacoochee Slough State Forest (OSSF), Dinner Island Ranch Wildlife Management Area, Spirit of the Wild Wildlife Management Area, and the panther "Dispersal Zone" (USFWS 2002a; Kautz et al. 2006). The conservation and management of these lands will provide important ecological benefits for the Florida panther, the other Covered Species, and other wildlife, including black bear.

Under the Plan, the historic, ongoing, and future land uses within the approximately 107,000 acres of protected lands — primarily agriculture and ranching — will continue and will provide the basis for long-term sustainable activities compatible with conserving the Covered Species. Outside of the protected areas, Covered Activities will include up to 45,000 acres (combined total) of residential/commercial development and earth mining within predefined portions of the 151,779±-acre HCP Area, consistent with the Collier County RLSP. These 45,000 acres include the 5,027-acre Town of Ave Maria, for which Federal permitting and Section 7 consultations have been completed. The acreage of Covered Activities attributable to the ITPs, therefore, is actually less than 40,000 acres (45,000 – 5,027 = 39,973).

The Covered Activities will occur primarily within previously-cleared agricultural areas that currently possess low proportions of native habitats, and exhibit little native habitat connectivity. These previously-cleared or otherwise disturbed areas generally consist of active agricultural fields, fallow fields, pastures, and other areas managed for agricultural production, which may include minor remnants of native vegetation (e.g., small cypress domes; small depressional wetlands). The Plan will thereby provide prospective, landscape-level management of future development on privately owned lands, by consolidating and directing development away from more ecologically valuable areas of

[1] The species covered by the Plan are listed in Tables 1-1, 1-2, and 1-3 (see Chapter 1, Background).

interconnected native habitats and toward previously cleared areas with lower habitat support functions. This integrated landscape approach provides significant ecological benefits over the piecemeal, project-by-project approach that typically occurs without landscape-level coordination and planning of conservation actions among separate, private landowners.

The Plan builds upon the ecological benefits arising from the RLSP (see Chapter 1), augmenting the RLSP by providing greater certainty for long-term planning of economic activities, as well as habitat preservation for the Florida panther and other Covered Species, through extensive preservation of habitats and regional wildlife corridors. The Plan institutes a 50-year integrated framework, and will reduce planning risks and regulatory uncertainties for property owners, regulatory agencies, environmental advocates, and the general public. Expanding upon the potential benefits of the RLSP, the Plan will provide the following benefits that will further long-term protection goals for the Florida panther and other Covered Species:

- Preservation, through conservation easements, of approximately 107,000 acres of land, which include existing regional wildlife corridors ("critical linkages") that provide landscape-scale "ecological greenways" among existing public conservation lands;
- Maintenance of lands designated as Preservation/Plan-Wide Activities and Very Low Density Use, to preserve the ecological value of those lands for Covered Species, through land management practices such as control of invasive plant species;
- Minimization of adverse impacts to Covered Species (e.g., concentrating and directing development to the more heavily developed western portions of the RLSP; directing lights and noise away from habitat);
- Monitoring potential impacts of the Covered Activities to listed species and their habitat to ensure that impacts are accounted for and minimized;
- Enhanced panther habitat mitigation (25% additional mitigation beyond that currently required by USFWS panther habitat functional analyses for activities subject to Federal approval within the panther primary zone); and
- Incorporation and implementation of the Florida Panther Protection Program (FPPP).

The Plan will also provide funding for activities undertaken through the Paul J. Marinelli Florida Panther Protection Fund (the Marinelli Fund, described in section 2.7 below and in Chapter 9). The Marinelli Fund was established through the FPPP to fund panther conservation activities. In 2016, the FPPP expanded the potential scope of the Fund's uses to include funding conservation activities to benefit other Covered Species, in addition to the panther. The Plan will support the Marinelli Fund through (i) contributions to be made on a per-acre basis as Covered Activities are initiated and (ii) transfer fees to be paid on a per-unit basis as homes within the HCP Area are sold and re-sold. Initiatives to benefit the Florida panther and other Covered Species will be undertaken at the discretion of the Fund's Board of Directors, and are expected to include funding for activities such as the following:

- Enhancement and management of wildlife corridors (the "North" and "South" corridors, described in Section 2.2 *infra*, with areas to be enhanced depicted as arrows on Figure 4-9) that facilitate landscape-scale movement of panther and black bear, in addition to other wildlife;
- Construction of panther and other wildlife crossings on roadways within the HCP Area; and
- Land acquisition, enhancement, and management, providing additional habitat for panther and other Covered Species.

Figure 2-1 depicts the extent of the HCP Area within the RLSA, the areas designated for Covered Activities (residential/commercial development and earth mining), Preservation/Plan-Wide Activities, Very Low Density Use, and Base Zoning (each described below). The Plan sets forth the acreage and general location for each of the designated uses (Figure 2-1). Precise locations will be determined in the future.

The Plan designates 97,086 acres as "Preservation/Plan-Wide Activities." The Plan also designates a 50,175-acre area where Covered Activities may occur, but caps the total for Covered Activities at 45,000 acres. Thus, 45,000 acres of Covered Activities may occur anywhere within this 50,175-acre area. The unused balance (5,175 acres) will be placed in the "Preservation/Plan-Wide Activities" designation, bringing the total of that designation to 102,261 acres. The Plan designates 2,087 acres "Very Low Density Use," indicating areas that may be used for such purposes as isolated residences, lodges, and hunting/fishing camps. In the event this property is used for such purposes, any construction would be limited to no more than one structure or dwelling unit per 50 acres. Finally, the 2,431-acre area within the HCP Area that makes up the Half Circle L Ranch is currently identified as "Base Zoning." These lands are located in an RLSP "Open" overlay area, where either development or preservation can occur under RLSP regulations, and where base zoning (1 dwelling unit per 5 acres) under the Collier County Land Development Code applies. The Half Circle L Ranch is for sale on the open market, and the current property owner is a member of the FPPP and an applicant for an ITP. The status of this property will be resolved during the timeframe for USFWS review of the HCP document, drafting of the IA (if applicable), and processing of the ITP applications. Currently, this Base Zoning area is simply identified. If the current or future owner chooses not to develop the area, it will be included in the Plan as land designated for Preservation/Plan-Wide Activities. If the current or future owner develops the area, the development footprint will be included under the 45,000-acre cap for Covered Activities and 2,431 acres that would have otherwise been designated for Covered Activities will be included in the area designated for Preservation/Plan-Wide Activities. Thus, the areas designated for Preservation/Plan-Wide Activities and Very Low Density Use will ultimately total approximately 107,000 acres, and the land designated for Covered Activities will be capped at 45,000 acres.

Figure 2-2 provides a regional view that illustrates how areas within the HCP Area designated for Preservation/Plan-Wide Activities serve to link existing public conservation lands. Table 2-1 summarizes the current land use and land cover within the HCP Area, by land designation category.

Okaloacoochee Slough State Forest

Corkscrew Regional Ecosystem Watershed

Lake Trafford

Immokalee

Immokalee Reservation

Big Cypress National Preserve

Florida Panther National Wildlife Refuge

Fakahatchee Strand State Preserve

Note: The location of Covered Activities was delineated in a Geographic Information System (GIS) to define the location, extent, and general configuration of where these Covered Activities may occur over a 50-year timeframe. The acres depicted in Covered Activities total approximately 50,175 acres. The actual total acreage of Covered Activities is constrained by the ECMSHCP to 45,000 acres within the HCP boundary. The exact configuration of Covered Activities will be refined during the design and permitting processes for each project.

L E G END

- HCP Area
- Preservation/ Plan-Wide Activities
- Covered Activities
- Very Low Density Use (≤ 1DU : 50 Acres)
- Base Zoning (1DU : 5 Acres)
- Prior Federal Permitting Initiated
- Eligible for HCP Inclusion (Non-ECPO Lands)
- Rural Land Stewardship Area Boundary
- Existing Conservation Land
- County and State Roads (not covered in ECMSHCP)

0 1 2 Miles

N

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FIGURE 2-1
HCP Land Designations
November 2017

Stantec Consulting Services Inc.
5801 Pelican Bay Blvd. Suite 300
Naples, FL 34108
tel 239.649.4040
fax 239.263.6449

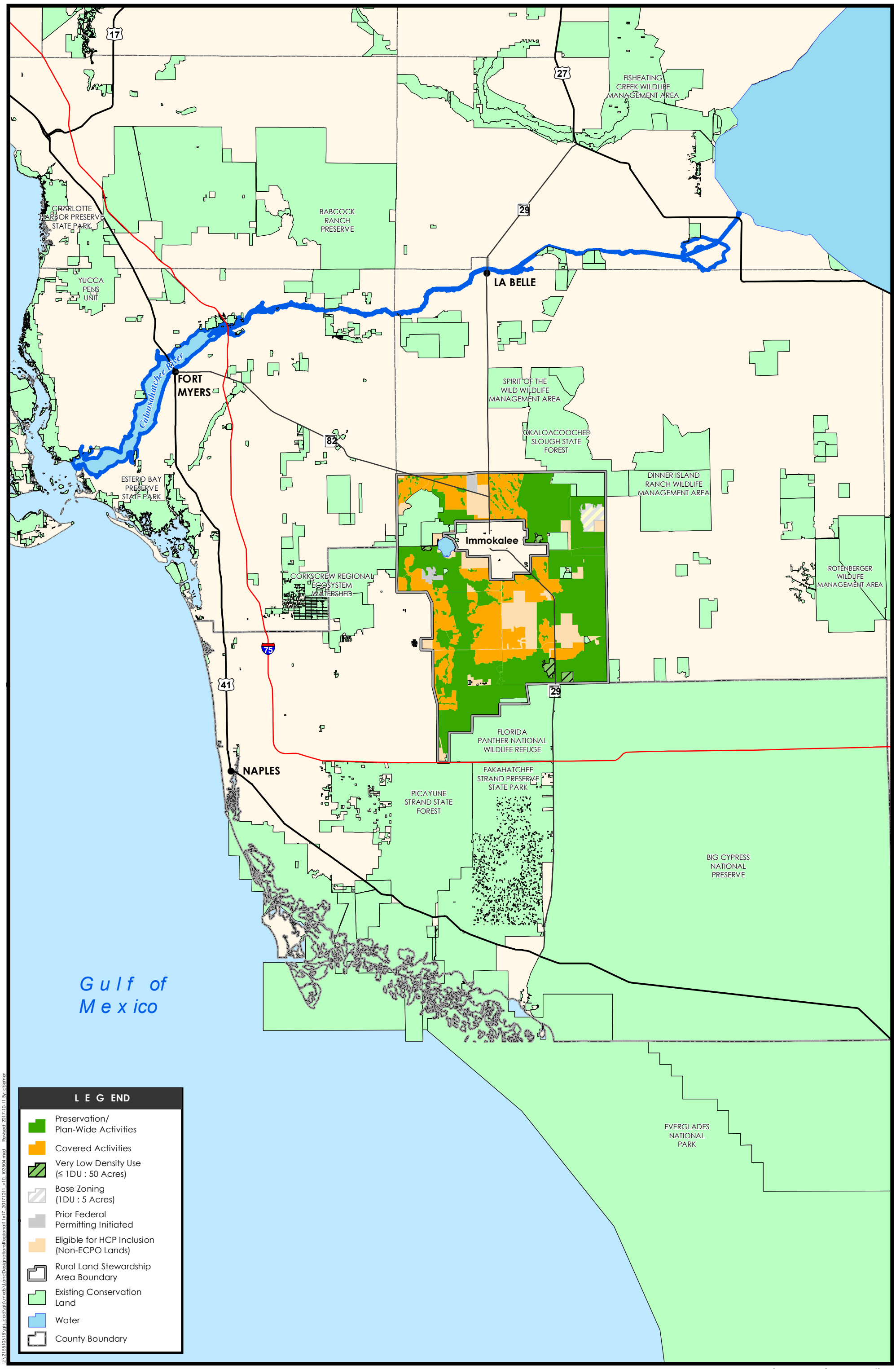

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FIGURE 2-2

HCP Land Designations - Regional View

November 2017

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Table 2-1. Existing land use / land cover within the ECMSHCP, by land designation category.

LAND USE / LAND COVER CATEGORY	COVERED ACTIVITIES (ACRES)[1]	PRESERVATION/ PLAN-WIDE ACTIVITIES (ACRES)[2]	VERY LOW DENSITY USE (ACRES)[3]	BASE ZONING (ACRES)[4]	TOTAL ACRES
Urban / Infrastructure	2,203	164	10	4	**2,381**
Mining / Oil and Gas	0	334	445	0	**779**
Pastures (Improved)	5,126	9,467	446	1,211	**16,250**
Cropland / Pasture	15,795	9,481	0	568	**25,844**
Citrus groves / other groves	19,842	8,287	0	1	**28,130**
Other Agriculture Rural Open Lands	1,730	4,457	117	0	**6,304**
Exotic Plants	377	541	2	0	**920**
Native upland non-forested	428	1,009	138	0	**1,575**
Native upland forested	1,775	9,791	307	16	**11,889**
Native wetland non-forested	2,101	25,672	169	536	**28,478**
Native wetland forested	796	27,717	442	93	**29,048**
Water	0	161	10	0	**171**
TOTALS PER FIGURE 2-1	**50,175**	**97,086**	**2,087**	**2,431**	**151,779**
TOTALS AT PLAN COMPLETION[5]	**45,000**	**102,261**	**2,087**	**TBD**	**151,779**

[1] "Covered Activities" may occur anywhere within the 50,175-acre area shown on Figure 2-1, but will be capped at 45,000 acres total. The balance of acreage between Figure 2-1 and the 45,000-acre cap (5,175 acres) eventually will be placed into "Preservation/Plan-Wide Activities."

[2] "Preservation/Plan-Wide Activities" (102,261 acres) refers to land areas preserved at Plan completion.

[3] "Very Low Density Use" refers to isolated rural structures (lodges, camps), and the acreage contributes to habitat support for Covered Species.

[4] "Base Zoning" was retained on the Half Circle L Ranch, and refers to a maximum of 1 dwelling unit per 5 acres. See section 2.5 of text.

[5] "Totals at Plan Completion" reflect the 45,000-acre cap for "Covered Activities," with the balance of land dedicated to the other land designations. The "TBD" (To Be Determined) notation reflects the fact that the Half Circle L Ranch is currently for sale, and its current zoning is retained until the current or new property owner places the land into a specific designation under the ECMSHCP.

The primary elements of the Plan are outlined in sections 2.2 and 2.3 below. The first two elements – Preservation/Plan-Wide Activities and Very Low Density Use – currently occur and/or will occur within the approximately 107,000 acres slated for permanent protection. The Covered Activities (residential/commercial development and earth mining activities), will occur within the 45,000 acres identified for Covered Activities described in section 2.3 ("Activities Covered By Incidental Take Permit").

2.2 PRESERVATION/PLAN-WIDE ACTIVITIES AND VERY LOW DENSITY USE

Activities that may occur in the lands designated for Preservation/Plan-Wide Activities include the types of agricultural, ranching, and other rural activities that have occurred throughout the HCP Area historically, and are expected to continue into the future. These predominantly agricultural activities preserve the current extent and function of the landscape-scale mosaic of habitats and land uses in this area that support the Covered Species, and are consistent with the protection of lands under the Plan.

These include activities such as the following:

- Crop Cultivation;
- Ranching/Livestock Operations;
- Forestry and Silviculture;
- Recreation;
- Exotic and Nuisance Species Control; and
- Oil and Gas Exploration and Production.

Many of these activities have generally occurred for a century or more in eastern Collier County, and in their present form are compatible with use of the lands designated for Preservation/Plan-Wide Activities and Very Low Density Use by the Covered Species. Some historic land use practices, such as the establishment and maintenance of pastures, directly benefit one or more Covered Species (e.g., northern crested caracara; Florida burrowing owl; Florida sandhill crane). In addition, existing land management practices may benefit the Covered Species. For example, prescribed burning benefits the Florida panther, gopher tortoise, and Eastern indigo snake; water retention area management may benefit wood stork and snail kite; and exotic species control benefits the Florida panther and many of the other Covered Species). Allowing these activities to continue also provides the opportunity for long-term agricultural use of lands, environmentally beneficial land management, and species conservation within a contiguous regional landscape.

Active oil and gas production has occurred within the HCP Area since the 1940s, and remains ongoing. Long-term radiotelemetry data and GPS data demonstrate that oil and gas production is compatible with utilization of the surrounding habitat by the Florida panther. No adverse effects of oil and/or gas exploration or production have been documented for the Covered Species within the HCP Area, and no incidental take of Covered Species is expected based on these activities. The oil and gas activities

conducted in the HCP Area are subject to regulation and permitting by the State of Florida (FDEP) and Federal agencies. Under the Plan, oil and gas exploration and production are activities that may occur anywhere within the HCP Area, as there are inherent uncertainties related to locating productive oil and gas reserves.

The permittees will also have the option of using the 2,087-acre area designated for Very Low Density Use for such purposes as isolated residences, lodges, and hunting/fishing camps (see Figure 2-1, Very Low Density Use). Any construction in this area would be limited to no more than one structure or dwelling unit per 50 acres. The low density of any development on these lands would be compatible with the panther's continued use of these lands.

The Plan will designate the vast majority (approximately 107,000 acres, or 70%) of the HCP Area as Preservation/Plan-Wide Activities and Very Low Density Use, which represent over 92 percent of the native habitats found within the HCP Area. This will ensure that the approximately 107,000 acres of contiguous lands will continue to support the needs of the Florida panther and other Covered Species through preservation, management, and ecological restoration (to be initiated through the Marinelli Fund where feasible). These lands include large blocks of native habitat where panthers have been documented extensively (Maehr 1990; USFWS 2002a; FPPP Technical Review Team [FPPPTRT] 2009).

The Plan includes the following activities that are collectively designed to meet biological goals and objectives for the Covered Species within the HCP Area:

- **Extensive, Contiguous Land Preservation.** The primary ecological benefit of the Plan is the designation of approximately 107,000 acres of contiguous lands for Preservation/Plan-Wide Activities and Very Low Density Use by Plan completion. These vast interconnected lands support the Florida panther as the Plan's major "focal species" (Beier 2010), as well as the other Covered Species. The approximately 107,000 acres of contiguous lands contain an ecologically valuable landscape-scale mosaic of native habitats and agricultural land uses that are utilized by the Florida panther and the other Covered Species. The preservation of these lands, which include two existing regional wildlife corridors – the Camp Keais Strand and Okaloacoochee Slough flowways – has been a goal of conservationists dating back several decades, and a goal identified specifically with respect to the panther since the 1980s (Belden et al. 1988; Maehr 1990; Logan et al. 1993). The Plan will prevent impacts that would have resulted from more intensive uses or development of the land designated for Preservation/Plan-Wide Activities and Very Low Density Use; preserve large, interconnected blocks of panther habitat; and minimize potential impacts of future development by concentrating and directing that development toward existing development and previously cleared areas in the western portions of the HCP Area, in the area designated for Covered Activities.

  As residential/commercial and earth-mining activities are approved and implemented in the area designated for Covered Activities, commensurate acreages within the lands designated for Preservation/Plan-Wide Activities and Very Low Density Use will be placed under conservation easements to compensate for permitted impacts. A summary of the current acreage of various

types of land cover and land use within the approximately 107,000-acre area that will be designated for Preservation/Plan-Wide Activities and Very Low Density Use is provided in Table 3-1, and depicted in Figure 3-4 (see Chapter 3, Environmental Setting). These phased land preservation activities will be augmented by the land management, mitigation, and monitoring activities described below, which will preserve and enhance the ecological function of these lands.

- **Management of Preserved Lands.** The lands designated for Preservation/Plan-Wide Activities and Very Low Density Use will be managed to preserve their existing ecological functions. Many of the activities that already occur within the lands designated for Preservation/Plan-Wide Activities, such as exotic and nuisance species control and pasture management, will benefit some or all of the Covered Species.

  The management activities that may occur within areas designated for Preservation/Plan-Wide Activities and Very Low Density Use in native habitat areas include, but are not limited to: exotic and nuisance species control; prescribed burning; mechanical control of excessive forest understory/fuel loads; tree thinning to improve native forest productivity; mechanical, hydrologic, and/or chemical control of vegetation to improve community structure and/or plant species diversity; construction and maintenance of surface water management structures for preservation or enhancement of existing/natural hydrologic function; scouting and monitoring of lands on foot, horseback, or by vehicle.

  The management activities that may occur within areas designated for Preservation/Plan-Wide Activities and Very Low Density Use in areas with non-native land cover types (predominantly agricultural fields and pastures) include a subset of the activities as listed above: crop cultivation; ranching/livestock operations; forestry and silvicultural operations; and exotic and nuisance species control. Collectively, these predominantly agricultural management activities will preserve the ecological functions of the area by maintaining healthy agro-ecosystems, controlling invasive species, and providing varying degrees of direct habitat support to some or all of the Covered Species.

- **Mitigation and Monitoring.** The designation of these lands for Preservation/Plan-Wide Activities and Very Low Density Use provides an effective framework for the implementation of systematic (rather than *ad-hoc*) mitigation and monitoring activities within the HCP Area. The Plan will restrict residential/commercial development activities and earth mining (Section 2.3) to areas designated for Covered Activities, which are largely previously cleared or otherwise disturbed areas with little native panther habitat and little habitat connectivity. Potential impacts to the Florida panther and the other Covered Species will be covered under ITPs issued to the applicants, which will provide for appropriate levels of mitigation and subsequent monitoring. Consistent with the RLSP, and as specified by USFWS under the ITPs, mitigation will be provided by placing conservation easements on lands designated for Preservation/Plan-Wide Activities as development in the area designated for Covered Activities occurs. Monitoring will be conducted to verify mitigation compliance.

Additional mitigation activities may include: wildlife mitigation activities designed to benefit one or more of the Covered Species, in coordination with USFWS and/or FWC; and wetland mitigation activities required by Federal and/or State resource agencies, including the U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (USEPA), South Florida Water Management District (SFWMD), and Florida Department of Environmental Protection (FDEP).

Wildlife mitigation activities may include habitat enhancement (invasive species control, prescribed burning, supplemental planting, etc.); hydrologic enhancement (increasing/decreasing seasonal high water to influence community composition); surface water management for species-specific requirements (e.g., northern caracara, wood stork, Everglade snail kite); and wetland creation, restoration, and/or enhancement.

- **Preservation of Existing Panther Movement Corridors.** Several planning and conservation efforts have identified the potential benefit of creating and/or enhancing wildlife movement corridors within Southwest Florida and eastern Collier County (Collier County 2009; FPPPTRT 2009; Small et al. 2012). As part of a comprehensive mitigation program, the Plan sets aside lands designated for Preservation/Plan-Wide Activities and Very Low Density Use that will allow for preservation of these corridors, which link large blocks of preserved habitat within and beyond the HCP Area. As depicted schematically in Small et al. (2012), setting aside these lands will allow for the enhancement of two corridors within the HCP Area: one corridor linking the Corkscrew Marsh system with the Okaloacoochee Slough system ("North" corridor); and another corridor linking habitats just east of SR 29 to the middle portions of the Okaloacoochee Slough ("South" corridor) (See Chapter 4, Florida Panther, and Figure 4-9). The Marinelli Fund could be used to fund activities to enhance the utility of these corridors through the planting of native vegetation used as cover by the panther and other Covered Species. Additionally, where these panther movement corridors intersect roadways, the Marinelli Fund could be used to fund activities to arrange for construction of fenced wildlife crossings to ensure safe passage of panthers and other wildlife through the landscape.

2.3 ACTIVITIES COVERED BY INCIDENTAL TAKE PERMIT

The Plan proposes two general categories of Covered Activities that will be conducted by or under the direction or control of the applicants: (i) residential/commercial development and (ii) earth mining. Upon full implementation of the Plan, including full build-out of the 45,000 acres of land designated for Covered Activities, the areas that will be designated for Preservation/Plan-Wide Activities and Very Low Density Use will encompass approximately 107,000 acres within the HCP Area, with the land permanently protected under conservation easements. The land utilized for Covered Activities will be capped at a maximum combined total of 45,000 acres, but as indicated above, the maximum combined total attributable to the ITPs will be less than 40,000 acres due to the inclusion of the Town of Ave Maria.

The applicants are seeking authorization for incidental take of the Covered Species resulting from Covered Activities conducted by or on behalf of the applicants, their lessees, their contractors, and/or

holders of Certificates of Inclusion,[2] that may occur within the pre-defined "Covered Activities" land designation areas within the HCP Area (Figure 2-1). The applicants request that ITPs be issued to the Plan applicants at the conclusion of Plan development. Any other activities that may potentially affect federally-listed species are not covered by the Plan.[3]

As shown in Figures 2-1 and 2-2, and summarized in Table 2-1, the Plan will accommodate up to a maximum of 45,000 acres of residential/commercial development and earth mining, in areas largely already cleared for agriculture that have low qualities of native habitat and little or no native habitat connectivity. The Town of Ave Maria (5,027 acres) will be included in this 45,000-acre cap.[4] The Covered Activities will be phased over the 50-year duration of the ITPs. Prior to the conversion of a given tract within the "Covered Activities" areas designated for development and/or earth mining activities (Figure 2-1), pre-existing activities (Section 2.2) can continue to occur. At any given time during the 50-year ITP duration, the total area designated for development will be a mix of agricultural lands, earth mining, and residential/commercial development, but at no time will the combined acreage of residential/commercial development and earth mining within the area designated for Covered Activities exceed 45,000 acres. The residential/commercial development and earth mining activities included in the Plan, for which incidental take authorization is requested, are described in the following bulleted paragraphs.

- **Residential/Commercial Development.** These activities include the planning, design, permitting, and construction of mixed-use residential communities and associated commercial facilities, along with infrastructure internal to the development footprint necessary to support these activities. Land uses within these developments may include, but are not limited to: single-family housing; multi-unit housing; public and private institutional facilities; commercial space; office space; retail establishments; surface water management; internal roadways; utilities; open space (e.g., parks, landscaping buffers, lakes); and other elements typical of mixed-use developments. Wherever feasible, developments will employ environmentally friendly planning

[2] See section 2.4, below.

[3] For example, the ITPs will not authorize or control incidental take resulting from activities of third parties (*e.g.*, actions that are not conducted by or on behalf of the applicants), such as panther-vehicle collisions on external roadways. Panther-vehicle collisions are not expected during construction and maintenance of roads internal to development areas permitted under the ITPs, based on factors such as the low speed of travel on these roads and relatively lower likelihood of panthers crossing roads, and therefore any such collisions, and any other panther strikes on these internal roads will not be covered. In addition, the ITPs will not cover panther strikes on any other roadways within the HCP Area (whether public or private). For example, roadway improvements conducted as part of county and/or State programs are not covered by the Plan, including pursuant to any current or future Long-Range Transportation Plans (LRTPs) developed by the Collier County Metropolitan Planning Organization (MPO).

[4] As described in Chapter 1, there are two parcels of land located within the RLSA (and the outer boundaries of the HCP Area) – the Hogan Island Quarry and the Immokalee Sand Mine – that are owned by ECPO members but are not included in the HCP Area or as Covered Activities because the Federal permitting process for each, including Section 7 consultations, is either already complete or is expected to be complete by the time the ITPs are issued. These two parcels are accounted for in the overall configuration and planning for wildlife corridors and other ecologically beneficial features of the Plan.

and designs, such as clustering, low-impact development, water reuse techniques, and greenspace buffers. These activities are subject to local, State, and Federal regulatory programs related to the establishment and operation of residential/commercial developments.

- **Earth Mining.** These activities include the planning, design, permitting, construction, operation, and decommissioning of surface earth mines. Within the area designated for Covered Activities, the earth materials extracted will be soil, sand, limestone, and similar earth materials used for construction fill, roadway fill, landscaping, and similar uses. Earth mines may occur as a prelude to future land uses, such as development, or may occur as an end-use. Permitting and regulation of earth mining activities is administered by USACE, FDEP, and Collier County.

In addition, lands designated as Plan-Wide/Preservation and Very Low Density Use will require periodic land management in perpetuity to maintain or improve habitat functions; maintain agriculture operations; maintain drainage infrastructure; control exotic vegetation; and control pests and diseases. Under the Plan, these activities include land management techniques such as prescribed burning; mechanical control of groundcover (e.g., roller chopping, brush-hogging, mowing); ditch and canal maintenance; mechanical and/or chemical control of exotic vegetation; soil tillage; and similar activities that maintain or improve land quality. The applicants also seek take coverage for these activities.

2.4 CERTIFICATES OF INCLUSION HOLDERS AND LESSEES

The permit applicants seek incidental take authorization for the Covered Activities, up to a maximum footprint of 45,000 acres, which will occur within the 50,175-acre area designated for Covered Activities on Figure 2-1. This incidental take authorization will extend to the applicants' subsidiaries, employees, lessees, and contractors, and other parties carrying out otherwise lawful activities conducted under the direction of the applicants and in compliance with the terms of the ITPs.

Although the applicants (ECPO members) own the entirety of the 151,779± acres within the HCP Area, non-ECPO private property owners hold over 20,000 acres of land (as calculated from the Collier County Property Appraiser database) within the RLSP area where the Plan is set. Figure 2-1 depicts these non-ECPO private property holdings as "Eligible for HCP Inclusion" within RLSP boundary. Some of these non-ECPO lands possess conservation value that could augment the conservation benefits provided by the Plan, should the current or future non-ECPO property owners choose to add some or all of their land to the Plan.

Given the 50-year duration of the ITPs, the intent of this Plan element is to provide additional flexibility in implementing the Plan, while adhering to the 45,000-acre limit for Covered Activities and without changing the areas within which the Covered Activities may occur. The goal is to recognize the possibility that future land transfers, purchases of new conservation lands, conservation incentives, or other mechanisms may provide new opportunities for enhancing the Plan, especially for the Florida panther.

Programmatic HCPs, such as those implemented by counties or states, often include a mechanism for non-participating property owners to participate in an HCP after issuance of the ITP. The reason for doing this is to facilitate the assembly of a wider and/or more complete conservation area and

comprehensively address activities within the area to the extent practicable. In such cases, a "Certificate of Inclusion" may be issued, which conveys the incidental take authorization to the new participant, while maintaining the take limitations and conservation requirements of the ITP.

At least one private-sector HCP – the Tehachapi Uplands Multiple Species Habitat Conservation Plan – has utilized this mechanism. The permit applicants recognize the potential benefits of such an approach for augmenting the Plan, and also for providing flexibility in responding to changed or unforeseen circumstances. The use of "Certificates of Inclusion" would not result in any increased take, reduce the conservation benefits specified in the ITP, or result in changes to the extent or location of Covered Activities, but would provide a means for flexibly enhancing the Plan.

2.5 BASE ZONING AREA

Figure 2-1 depicts a "Base Zoning" area on 2,431 acres of the Half Circle L Ranch, east of Immokalee. The 2,431 acres represents an RLSP "Open" overlay area, where either development or preservation could occur under RLSP regulations, and where base zoning (1 dwelling unit per 5 acres) under the Collier County Land Development Code applies. As of this writing, the Half Circle L Ranch is for sale on the open market. Although the current property owner is a member of the FPPP and an applicant for an ITP, it is not known whether the property will be sold before the HCP/ITP process is concluded, or what land designation would be applied to the 2,431 acres in the event of a sale.

The status of this property is expected to be resolved during the timeframe for USFWS review of the HCP document, completion of the NEPA process, and processing of the ITP applications. For the purposes of this draft of the HCP document, the Base Zoning area is simply identified, and counts neither as land designated for Covered Activities, or for Preservation/Plan-Wide Activities or Very Low Density Use. Should the current or future owner choose not to develop the area, it will be included in the Plan as land designated for Preservation/Plan-Wide Activities. Should the current or future owner develop the area at base zoning or higher densities, the development footprint will be included under the 45,000-acre cap for Covered Activities, and 2,431 acres that would have otherwise been designated for Covered Activities will be included in the area designated for Preservation/Plan-Wide Activities.

2.6 OTHER TAKE AVOIDANCE AND MINIMIZATION MEASURES

The primary avoidance and minimization measure for potential impacts to the Florida panther and other Covered Species is the designation of approximately 107,000 acres of contiguous lands for Preservation/Plan-Wide Activities and Very Low Density Use (Figure 2-1). Within the 45,000 acres proposed for Covered Activities, multiple avoidance and minimization measures will be implemented at project-level scales as part of project planning, design, permitting, and construction. The Plan's direction of development toward less ecologically valuable, previously cleared areas, and preservation of more ecologically valuable contiguous areas of land, serves as a significant avoidance and minimization strategy. Other project-level avoidance and minimization measures for the Covered Species are described in Chapter 4 (Florida Panther) and Chapter 7 (Conservation Plan for Other Covered Species).

2.7 OTHER PLAN ELEMENTS

A major benefit of the Plan is the opportunity for coordination with the FPPP (see Chapters 1 and 9). The FPPP is a collaborative effort among the applicants and several major environmental groups to assist in the conservation and recovery of the Florida panther. A central component of the FPPP is the establishment of the Marinelli Fund, which will be governed by its own board of directors, and will be funded by the Plan.

The Fund will be underwritten by (i) contributions to be made on a per-acre basis as Covered Activities are initiated and (ii) transfer fees to be paid on a per-unit basis as homes within the HCP Area are sold and re-sold (see Chapter 9 for more detail). In addition to possible enhancement of the North and South Corridors (described above), the Marinelli Fund may be used for a variety of conservation activities that assist with panther recovery, such as design and construction of wildlife underpasses under and fencing along roadways to prevent wildlife-vehicle collisions; panther habitat acquisition, management, restoration and/or enhancement; and other activities that are consistent with the FPPP goals; the Fund may also be used to benefit the other Covered Species (Chapter 9).

The Plan also identifies the potential for changed and unforeseen circumstances (see Chapter 8). Examples of reasonably foreseeable changed circumstances include the potential impacts of hurricanes; wildfires; pests, and diseases affecting Covered Species and/or their habitats; effects of climate change; and new listings of species not covered by the Plan. The Plan also incorporates measures for responding to changed circumstances that may impact one or more Plan elements. Under USFWS's "No Surprises" rule, permittees are not required to provide additional resources or funds to address unforeseen circumstances.

The Plan identifies alternatives to the issuance of the ITPs as proposed under the Plan, and explains why the other alternatives were not selected (see Chapter 10, Alternatives).

The detailed provisions for implementing this Plan will be incorporated into the permits or IA. The IA (if applicable) and/or the permits will specify the mutual obligations of the applicants and USFWS for executing the Plan elements, and for carrying out the Plan in accordance with the terms of the ITPs and Federal regulations.

From:	amber crooks
To:	Cassler, Constance; Kelso, Charles
Cc:	nicole johnson; Hinzman, Roxanna; Williams, Larry O
Subject:	Follow up letter re Conservancy of Southwest Florida meeting
Date:	Friday, March 9, 2018 3:03:43 PM
Attachments:	JB Ranch PHU easement emails.pdf 3-2-18 - Conservancy of SWFL_RLSA_Presentation to FWS.pdf 03.02.18_Conservancy of SWFL_ECMSHCP and Lee Cty_Presentation to FWS.pdf 3-9-18 USFWS re Follow-up From March 2, 2018 Meeting.pdf RLSA_Buildout_RoadPlansCopy.zip 00075_EasternCollierLongRangeTransportation_20081111v09_2208.pdf

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Dear Connie and Chuck,

Please see the attached letter from the Conservancy of Southwest Florida that is follow up to our productive meeting held March 2, 2018.

Also enclosed here are the two powerpoints we provided that day, and the emails we are referencing regarding our question on PHUs and the JB Ranch easement (as it relates to the concept of "trapped PHUs", an idea that the PRT found detrimental to panther conservation).

We also have attached the shapefiles produced by WilsonMiller (now Stantec) of the roadways that would support the development in the HCP area. The shapefiles show what is in the attached map "Eastern Collier Long Range Transportation" by WilsonMiller, which was provided to Collier County in the RLSA process a while back. If the shapefiles don't work, let us know – but it should have all of the layer files.

If you have any questions, do let us know. Thank you again for your time in meeting with us and we look forward to continuing the conversation.

In Kind Regards,

Amber Crooks

Amber Crooks, Environmental Policy Manager
Conservancy of Southwest Florida
1495 Smith Preserve Way
Naples, FL 34102
(239)262-0304 ext. 286
amberc@conservancy.org
www.conservancy.org

CONSERVANCY of Southwest Florida
OUR WATER, LAND, WILDLIFE, FUTURE.

Protecting Southwest Florida's unique natural environment and quality of life…now and forever.

Please consider the environment before printing this e-mail

From:	Williams, Larry O
To:	Hinzman, Roxanna; Rivera, Jose J; Cassler, Constance
Subject:	Fwd: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
Date:	Friday, December 15, 2017 9:24:26 AM
Attachments:	Qs for SFWMD.10.2017.docx
Importance:	High

Please pass on to appropriate staff members.

Thanks,

Larry
---------- Forwarded message ----------
From: **Gaylene Vasaturo** <gaylenevasaturo@sbcglobal.net>
Date: 2017-12-15 8:53 GMT-05:00
Subject: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
To: larry_williams@fws.gov

Mr. Williams, attached above are comments concerning Rural Lands West proposed development which is in the Rural Lands Stewardship Area of Collier County.

Please consider these comments for the pending Rural Lands West Development Corp of Engineer Permit review SAJ-2008-00210 (SP-RMT) and for the Environmental Impact Statement that USFWS is preparing for the Eastern Collier Multispecies Habitat Conservation Plan in the Rural Lands Stewardship Area.
Please place these comments in the appropriate public records.

These comments were submitted to South Florida Water Management District for their consideration of the pending Rural Lands West ERP Application #160711-8

--
Larry Williams
State Supervisor for Ecological Services
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, FL 32960-3559
Ph: 772-469-4285
Fax: 772-778-0683
larry_williams@fws.gov

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

From:	Cassler, Constance
To:	Kelso, Charles
Cc:	Mcdonald, Kenneth
Subject:	Fwd: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
Date:	Friday, December 15, 2017 9:30:48 AM
Attachments:	Qs for SFWMD.10.2017.docx
Importance:	High

FYI

Constance L. Cassler, Ph.D.
Supervisory Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960
office: 772-469-4243
fax: 772-562-4288
email: constance_cassler@fws.gov

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Visit our web site at www.fws.gov/verobeach/

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---------- Forwarded message ----------
From: **Williams, Larry** <larry_williams@fws.gov>
Date: Fri, Dec 15, 2017 at 9:24 AM
Subject: Fwd: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
To: Roxanna Hinzman <Roxanna_Hinzman@fws.gov>, Jose Rivera <jose_rivera@fws.gov>, Constance Cassler <Constance_Cassler@fws.gov>

Please pass on to appropriate staff members.

Thanks,

Larry
---------- Forwarded message ----------
From: **Gaylene Vasaturo** <gaylenevasaturo@sbcglobal.net>
Date: 2017-12-15 8:53 GMT-05:00
Subject: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
To: larry_williams@fws.gov

Mr. Williams, attached above are comments concerning Rural Lands West proposed development which is in the Rural Lands Stewardship Area of Collier County.

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Larry Williams
State Supervisor for Ecological Services
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, FL 32960-3559
Ph: 772-469-4285
Fax: 772-778-0683
larry_williams@fws.gov

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

From: Kelso, Charles
To: Cassler, Constance; Dell, David
Subject: Half Circle L Ranch, Collier County
Date: Monday, March 12, 2018 9:37:50 AM
Importance: High

Connie, David,

FYI

I received a call from Alexandra Soleki of Collier County regarding the County's proposal to purchase the Collier County portion of the Half Circle L Ranch. Based on the maps in the draft HCP and draft EIS this area is proposed for base zoning (1 development unit per 5 acres). The County's proposal is to purchase this land and prescribe conservation, native habitat enhancement/passive recreation/hunting. Alexandra asked if purchasing this land and placing it in conservation would be a wise investment for the County. Since the HCP proposal puts it in low density residental/ranchette, I think the County's proposal may be more aligned with the Service's objectives. I plan to follow up with Alexandra and Bruce about this.

Just wanted to keep you informed.

--
Chuck Kelso
U.S. Fish and Wildlife Service
South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960-3559
(772)469-4241
Charles_Kelso@fws.gov

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Revised Chapters 1 & 2 Comments
Ken McDonald
11/30/2017

1) Expand Section 1.3 to include contact information for representatives of each applicant. If ECPO will continue to represent the applicants throughout the lifespan of the HCP, designate them as such and additionally provide relevant contact information for the ECPO designated representative in this section. Ensure someone picking up this HCP knows exactly how to contact the individual(s) participating in the HCP and administering it. Consider moving this section to the front of Chapter 1.
2) Move discussion of Covered Species conservation and recovery histories from Chapter 1 to the appropriate species chapters.
3) After the applicants and their representatives have been identified, introduce the activities and species for which an ITP is sought. Call this Section "Purpose of the HCP."
    a. Bring the description of Covered Activities from Chapter 2 to Chapter 1
        i) Where applicants retain a governance role in any future commercial developments, residential developments, or earth mining activities add "facilities/properties management" to the list of Covered Activities.
        ii) Remember to include conservation actions in the list of Covered Activities (example, those being implemented for Rural Lands West). *Note: Very Low Density Use" might qualify as a minimization measure ONLY IF it is being implemented as an alternative to more intense development that would otherwise occur. If more intensive development is not being considered for "Very Low Density Use" locations, these need to be described as a Covered Activity.
        iii) Describe the manner of takings for each Covered Activity (e.g. "harm & harassment" or any other manner of taking likely to occur relative to each covered activity).
        iv) Describe features common to activities that makes them different than what would be pursued without an HCP (a change in housing density from base zoning, trip-capture within communities, reduction of water consumption relative to present etc).
        v) Summarize how the aggregate of Covered Activities will impact Covered Species without mitigation.
    b. Describe the FULL Regulatory Environment in which these impacts will occur (local, state, and federal). Provide a table listing all laws and regulations (local, state, and federal) applicants must adhere to in order to engage in Covered Activities. Provide a separate table listing all of the permits required for applicants to engage in Covered Activities.
    c. Identify which of these laws and regulations are satisfied by compilation of the HCP and implementation of the measures contained within it.
    d. Broadly describe the desired end state for Covered Species (e.g. "no-net loss", "net gain" etc).
4) See Figure 9.1e on page 9-5 of the HCP handbook for guidance on how to describe biological goals for the HCP, and break down biological goals and measures hierarchically.
    a. Chapter 1 describes the "Purpose of the HCP." Some of the purpose is described in Chapter 1, but the presentation of it gives one the impression it's a sales pitch rather than a description (There's some text dedicated to Chapter 2 describing "Regional or Landscape Goals", "Vision for HCP Program", and "HCP Goals", but these should be more explicitly identified in the text- consider naming chapters after these and putting in the appropriate information). Chapters describing impacts to species should have sections titled "HCP Objectives", "HCP Measures", and "Monitoring Goals" for each species.

From: Cassler, Constance
To: Hinzman, Roxanna
Cc: Rivera, Jose J
Subject: Re: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
Date: Friday, December 15, 2017 9:31:43 AM
Importance: High

I forwarded to Chuck and Ken.

Connie

Constance L. Cassler, Ph.D.
Supervisory Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960
office: 772-469-4243
fax: 772-562-4288
email: constance_cassler@fws.gov

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Follow us on InstaGram @usfws_south_florida
Visit our web site at www.fws.gov/verobeach/

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On Fri, Dec 15, 2017 at 9:24 AM, Williams, Larry <larry_williams@fws.gov> wrote:

> Please pass on to appropriate staff members.
>
> Thanks,
>
> Larry
> ---------- Forwarded message ----------
> From: **Gaylene Vasaturo** <gaylenevasaturo@sbcglobal.net>
> Date: 2017-12-15 8:53 GMT-05:00
> Subject: Comments Rural Lands West Development, Rural Lands Stewardship Area Collier County
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> Mr. Williams, attached above are comments concerning Rural Lands West proposed development which is in the Rural Lands Stewardship Area of Collier County.
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> Please consider these comments for the pending Rural Lands West Development Corp of Engineer Permit review SAJ-2008-00210 (SP-RMT) and for the Environmental Impact Statement that USFWS is preparing for the Eastern Collier Multispecies Habitat Conservation Plan in the Rural Lands Stewardship Area.

Please place these comments in the appropriate public records.

These comments were submitted to South Florida Water Management District for their consideration of the pending Rural Lands West ERP Application #160711-8

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Larry Williams
State Supervisor for Ecological Services
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, FL 32960-3559
Ph: 772-469-4285
Fax: 772-778-0683
larry_williams@fws.gov

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

From: Dell, David
To: Kelso, Charles
Cc: Cassler, Constance
Subject: Re: Half Circle L Ranch, Collier County
Date: Monday, March 12, 2018 10:08:23 AM
Importance: High

Chuck: Is this land owned by one of the ECPO group? I'm not seeing that this is a major concern either way.

David Dell
Southeast Region
HCP and Safe Harbors Coordinator
404/679-7313
fax: 7081
david_dell@fws.gov

NOTE: All email correspondence and attachments received from or sent to me are subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

On Mon, Mar 12, 2018 at 9:37 AM, Kelso, Charles <charles_kelso@fws.gov> wrote:

> Connie, David,
>
> FYI
>
> I received a call from Alexandra Soleki of Collier County regarding the County's proposal to purchase the Collier County portion of the Half Circle L Ranch. Based on the maps in the draft HCP and draft EIS this area is proposed for base zoning (1 development unit per 5 acres). The County's proposal is to purchase this land and prescribe conservation, native habitat enhancement/passive recreation/hunting. Alexandra asked if purchasing this land and placing it in conservation would be a wise investment for the County. Since the HCP proposal puts it in low density residental/ranchette, I think the County's proposal may be more aligned with the Service's objectives. I plan to follow up with Alexandra and Bruce about this.
>
> Just wanted to keep you informed.
>
> --
> Chuck Kelso
> U.S. Fish and Wildlife Service
> South Florida Ecological Services Field Office
> 1339 20th Street
> Vero Beach, FL 32960-3559
> (772)469-4241
> Charles_Kelso@fws.gov

> NOTE: All email correspondence and attachments received from or sent to me are subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties

From:	Kelso, Charles
To:	SuleckiAlexandra
Cc:	Dell, David; Cassler, Constance
Subject:	Re: Half Circle L Ranch
Date:	Monday, March 12, 2018 2:18:00 PM
Attachments:	image001.png image002.png
Importance:	High

Thanks Alexandra,

Our regional HCP coordinator felt that County's purchase of the Half Circle L ranch would not conflict with the USFWS mission.

I haven't had any feedback from the HCP applicants yet.

On Mon, Mar 12, 2018 at 1:49 PM, SuleckiAlexandra <Alexandra.Sulecki@colliercountyfl.gov> wrote:

> Thank you Chuck,
>
> I got your voice mail too. The last opportunity I will have to present information about this property prior to my Advisory Committee ranking them into a recommended acquisition list is April 9.
>
> Thank you very much for your assistance!
>
> Regards,
>
> *Alexandra J. Sulecki*
>
> Coordinator
>
> **Note: New Email:** Alexandra.Sulecki@colliercountyfl.gov
>
> Conservation Collier Program
>
> Collier County Parks and Recreation Division
>
> Public Services Department
>
> Golden Gate Community Park

3300 Santa Barbara Blvd.

Naples 34116

Office: 239-252-2961

Cell: 239-289-9751

www.Colliergov.net/ConservationCollier

From: Kelso, Charles [mailto:charles_kelso@fws.gov]
Sent: Monday, March 12, 2018 9:46 AM
To: SuleckiAlexandra <Alexandra.Sulecki@colliercountyfl.gov>
Cc: Constance Cassler <constance_cassler@fws.gov>; Dell, David <david_dell@fws.gov>
Subject: Half Circle L Ranch

Hi Alexandra,

Thanks for the heads-up last week. Based on our draft HCP and Draft EIS maps, the Half Circle L ranch appears to be designated as base zoning (Low density residential 1 unit/5 acres). Our staff will be discussing this with the HCP applicants this week. I'll let you know the outcome of our discussions on this area.

All the best.

Chuck

--

Chuck Kelso

U.S. Fish and Wildlife Service

South Florida Ecological Services Field Office

1339 20th Street

Vero Beach, FL 32960-3559

(772)469-4241

Charles_Kelso@fws.gov

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--
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