



DRAFT AGENDA
ESTERO BAY AGENCY ON BAY MANAGEMENT

Monday, August 10, 2020 – 9:30 a.m.

SWFRPC

Virtual GoToMeeting

- 1) Call to Order
- 2) Attendance
- 3) Approval of Minutes from July 13, 2020 (requires a quorum)
- 4) Membership Updates
- 5) Lee Flood Mitigation Plan - Mr. Roland Ottolini, Lee County Department of Natural Resources
- 6) Future DR/GR Meeting – Review Conservancy letter, Suggestions for invitations
- 7) Old Business
- 8) New Business
- 9) Emerging Issues
- 10) Announcements
- 11) Public Comments on Items Not on the Agenda
- 12) Set Date for Next EBABM
- 13) Adjournment

**BEFORE THE SECRETARY OF THE
UNITED STATES DEPARTMENT OF THE INTERIOR**

and

**THE DIRECTOR OF THE
UNITED STATES FISH AND WILDLIFE SERVICE**

**PETITION TO DESIGNATE CRITICAL HABITAT FOR THE ENDANGERED
FLORIDA PANTHER**



Conservancy of Southwest Florida, Petitioner

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References (attached)

U.S. Fish & Wildlife Service, *Florida Panther Recovery Plan, 3rd Revision* (Nov. 1, 2008).

Kautz, et al., *How Much is Enough: Landscape Conservation for the Florida Panther?* *Biological Conservation* 130 (2006) 118-133.

McBride, Roy T. et al., *Counting Pumas by Categorizing Physical Evidence*, *Southeastern Naturalist* 7(3): 381, at 387-389 (2008).

I. ACTION REQUESTED

The Conservancy of Southwest Florida, pursuant to § 4(b)(3)(D) of the Endangered Species Act (“ESA”), 16 U.S.C. § 1533(b)(3)(D), the Administrative Procedure Act (“APA”), 5 U.S.C. § 553(e), and 50 C.F.R. § 424.14(a), hereby petitions the Secretary of the United States Department of the Interior (“Department”) and the Director of the United States Fish and Wildlife Service (“FWS”) to designate critical habitat for the endangered Florida panther (*Puma concolor coryi*) in South Florida. Petitioner requests that the Department and FWS commence rulemaking to designate critical habitat in South Florida to coincide with the Primary, Secondary, and Dispersal Zones set out in the recently approved FWS Florida Panther Recovery Plan, 3rd Revision, based upon Kautz, *et al.*, *How Much is Enough: Landscape Conservation for the Florida Panther?* Biological Conservation 130 (2006) 118-133, which represent the best available science for determining critical habitat for the Florida panther. After 41 years on the endangered species list without recovery, when threats to habitat deemed essential to its survival are growing daily, the Florida panther is in dire need of this long-overdue step for conservation of the species.

Although no critical habitat has ever been designated for the Florida panther, the process under 16 U.S.C. § 1533(b)(3)(D) and 50 C.F.R. § 424.14(c) for revision of critical habitat is required to be used in considering and responding to this Petition. For species listed prior to the passage of the 1982 amendments to the ESA, such as the Florida panther, the 1982 amendments provided that procedures used to designate critical habitat should be subject to the regulations for proposing revisions to critical habitat.¹ Specifically, FWS should issue an initial finding as to whether the Petition “presents substantial scientific or commercial information indicating that the revision may

¹ Pub. L. 97-304 § 2(b)(2) (1982), states: “(2) Any regulation proposed after, or pending on, the date of the enactment of this Act [enacted Oct. 13, 1982] to designate critical habitat for a species that was determined before such date of enactment to be endangered or threatened shall be subject to the procedures set forth in section 4 of such Act of 1973

be warranted.” 16 U.S.C. § 1533(b)(3)(D)(i). FWS should make this initial finding “[t]o the maximum extent practicable, within 90 days after receiving the petition.” *Id.* Under 16 U.S.C. § 1533(b)(3)(D), Petitioner need not demonstrate that the designation of critical habitat is warranted, rather, Petitioner must only present information demonstrating that such action “may be warranted” [emphasis added]. Because the substantial scientific information that has been summarized in the Panther Recovery Plan clearly warrants designation of critical habitat for the Florida panther, FWS should promptly make a positive initial finding on the Petition and commence preparation of proposed rulemaking to designate critical habitat.

As described in this Petition, the areas we propose for critical habitat designation meet all the criteria for such designation as defined at 16 U.S.C. § 1532(5) and 50 C.F.R. §§ 424.02 & 424.12. However, in the event that FWS determines that some portions of the requested critical habitat do not meet the criteria for such designation, the Conservancy, in the alternative, requests that FWS analyze and determine whether some subset of this area should be designated as critical habitat.

II. PETITIONER

Petitioner Conservancy of Southwest Florida (“Conservancy”) is a non-profit corporation organized under the laws of the State of Florida in 1964. The Conservancy has more than 6,000 members in Southwest Florida, most residing in Collier County and Lee County, where a significant portion of Florida panther habitat is located. The mission of the Conservancy is to protect the environment and natural resources of Southwest Florida, which the Conservancy fulfills by scientific research, policy advocacy, and environmental education. The conservation of the Florida panther is key to the Conservancy’s mission, because the panther is a significant indicator species for the health of the natural environment in Southwest Florida. The Conservancy conducts scientific research

[this section] (as amended by subsection (a)) for regulations proposing revisions to critical habitat instead of those for regulations proposing the designation of critical habitat.”

regarding the Florida panther, provides environmental education for its members and the public regarding the Florida panther and its habitat, preserves land in Florida panther habitat areas, and advocates for the protection of the Florida panther and its habitat before local, state, and federal governmental agencies. In addition, members of the Conservancy desire to view the Florida panther and other endangered species in their natural habitat in Southwest Florida, and their ability to view panthers and other endangered species in the wild would benefit from the designation of critical habitat for the Florida panther.

III. THE ENDANGERED FLORIDA PANTHER AND ITS HABITAT

The Florida panther is one of the most endangered large mammals in the world. It is also Florida's state animal and is listed as endangered by FWS and the State of Florida. Historically ranging throughout the southeastern United States, today the panther is restricted to less than 5 percent of its historic range in one breeding population of less than 100 animals, located in South Florida. On March 11, 1967, FWS listed the Florida panther as endangered throughout its historic range, and these animals received federal protection under the passage of the ESA of 1973.² Although the habitat for this remnant population of the Florida panther has been steadily shrinking since this time through encroachment by a population tide of subdivisions, farms and roads, no critical habitat has been designated.

The attached FWS Florida Panther Recovery Plan, 3rd Revision, contains a detailed description of the species, including its taxonomy, population trends and distribution, life history / ecology, habitat characteristics / ecosystem, habitat and prey management, and response to management activities, which is incorporated as part of this Petition. With the addition of the attached articles, Kautz, et al., *How Much is Enough: Landscape Conservation for the Florida Panther?*

² 32 Fed. Reg. 4001 (March 11, 1967).

Biological Conservation 130 (2006) 118-133, and McBride, Roy T. et al., *Counting Pumas By Categorizing Physical Evidence*, *Southeastern Naturalist* 7(3): 381-389 (2008), Petitioner believes that the Recovery Plan utilizes the best available science concerning the panther and its habitat requirements. Other scientific information relied upon is referenced in this Petition.

Historically, Florida panthers ranged throughout much of the southeastern United States, from eastern Texas, eastward through Arkansas, Louisiana, Mississippi, Alabama, Georgia, Florida and parts of Tennessee and South Carolina. *See* Figure 1. Today, the only reproducing population of the Florida panther is located in the Big Cypress Swamp/Everglades physiographic Region of

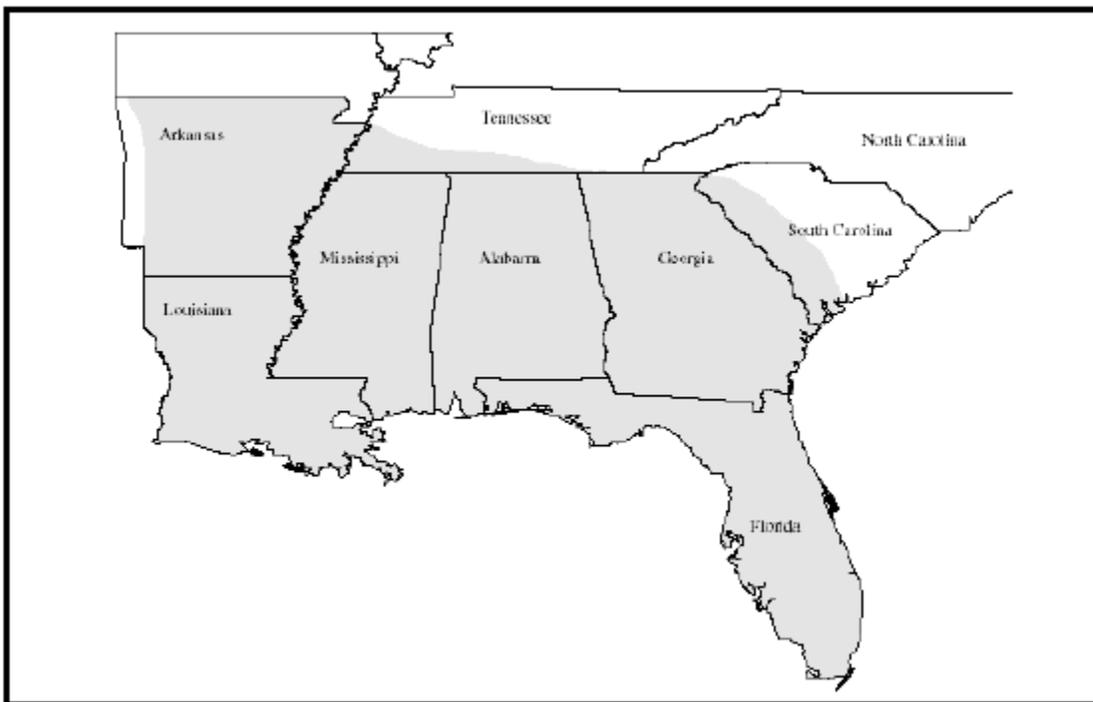


Figure 1. Historical Distribution of the Florida panther. E.A. Goldman, “Classification of the Races of Puma,” in *The Puma, Mysterious American Cat*, 170-302 (S.P. Young and E.A. Goldman eds., 1946).

South Florida. Panthers now range over an area approximately 10,000 km² (1,000,000 ha) in size, with the most consistent panther occupancy covering about 800,951 ha.³ The core of this

³ Kautz *et al.* at 119, 126 (2006).

population is located in portions of Collier, Hendry, Miami-Dade, Lee, and Monroe counties.⁴ Radio-collared panthers have also been documented in counties outside South Florida, including Osceola and Polk Counties, but there is no evidence that any breeding populations exist north of the Caloosahatchee.⁵

A wide variety of landscape components comprise current Florida panther habitat.⁶ These components are a mixture of natural, semi-natural, and agricultural land uses.⁷ Forest patches, regardless of size, are important components of panther habitat.⁸ Panthers appear to prefer upland wood forest, hardwood swamp, and pinelands types of cover, particularly during the morning hours.⁹ However, “a more heterogeneous landscape characterized by an interspersed forest and non-forest patches may be more favorable to the production of prey species.”¹⁰ The most recent GPS tracking data show that panthers have been found in wetland forest, upland forest, dry prairie-grassland, marsh shrub, and agriculture land during both nighttime and daytime hours.¹¹ The panthers clearly prefer the wetland and upland forest areas during the day, but are more evenly distributed at night.¹²

In addition to high-quality habitat, Florida panthers require large home ranges. Adult Florida panthers space themselves throughout available habitat in a pattern similar to that of western cougars.¹³ The availability of adequate home ranges is also an important factor for panther behavior. Interactions between individual panthers are infrequent. Most interactions occur between adult

⁴ *Id.*

⁵ *Id.* at 121.

⁶ Kautz *et al.* at 127 (2006).

⁷ *Id.*

⁸ *Id.*

⁹ *Id.* at 125.

¹⁰ *Id.* at 129.

¹¹ Darrell Land *et al.* *Florida Panther Habitat Selection Analysis of Concurrent GPS and VHF Telemetry Data*, Volume 72, Issue 3 (April 2008) *Journal of Wildlife Management* p. at 637.

¹² *Id.*

¹³ E. Darrell Land, *Response of the Wild Florida Panther Population to Removals for Captive Breeding* (Fla. Game and Freshwater Fish Comm'n, Final Report No. 7571, 1994).

females and their kittens. Interactions between adult males and females usually result in pregnancy. Interactions between male panthers often have serious consequences as intraspecific aggression claims several panthers each year. “In the absence of unnatural mortality... aggression between males may be the most common form of male mortality and an important determinant of male spatial and recruitment patterns.”¹⁴

Seventeen male panthers have been found outside the occupied range since 1998.¹⁵ These areas include central and north Florida, north of the Caloosahatchee River.¹⁶ Florida panthers are excellent swimmers, capable of crossing canals and sloughs and even ranging well out into the wetter portions of the Everglades.¹⁷ The Caloosahatchee River in its upper reaches is a narrow, channelized river that dispersing male panthers have traversed to reach beyond their current breeding range.

IV. STATUTORY REQUIREMENTS AND PREVIOUS ADMINISTRATIVE ACTIONS FOR THE FLORIDA PANTHER

Congress passed the ESA in 1973 in order “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved [and] to provide a program for the conservation of such endangered species and threatened species.”¹⁸ Once a species is listed under the ESA, FWS and other federal agencies must take action to conserve the species. The ESA defines the terms “conserve”, “conserving” and “conservation” as “to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer

¹⁴ David S. Maehr et al., *Social Ecology of Florida Panthers*, *supra*.

¹⁵ McBride et al., *Counting Pumas by Categorizing Physical Evidence*, *Southeastern Naturalist* 7(3): 381, 391-92 (2008).

¹⁶ *Id.* at 391.

¹⁷ Recovery Plan, p. 5.

¹⁸ 16 U.S.C. § 1531(b).

necessary.”¹⁹ In other words, conservation has been achieved under the ESA when a species is recovered to the point that it can be removed from the endangered and threatened species lists.

There are several tools for endangered species conservation required by the ESA, including critical habitat designation, consultations by FWS with other federal agencies to protect listed species from jeopardy and protect critical habitat from “destruction or adverse modification,” prohibitions on take, and recovery planning. Congress has made it clear that critical habitat designation is as important for conservation of listed species as the listing process, itself.

A. Critical Habitat Designation

Although the Florida panther was one of the original species placed on the endangered species list and has been on the list for 41 years without recovery, no critical habitat has been designated in the shrinking range of the sole reproducing population. Had the Florida panther been listed after 1978, however, the ESA would have required designation of critical habitat. This loophole in the ESA has left many “older” listed species without this important protection.

Under the Endangered Species Act of 1973 critical habitat designations for listed species were authorized through FWS rules but were not mandated.²⁰ It was not until the 1978 amendments that FWS was required, “to the maximum extent prudent,” to designate critical habitat at the same time that the regulation listing a new species is proposed. For those species listed prior to the 1978 amendments, however, the amendments stated that “critical habitat may be established,”²¹ which is the language that remains in the ESA.²² The 1982 ESA amendments modified the requirement to designate critical habitat, requiring that “to the maximum extent prudent and determinable” the Secretary “shall, concurrently with making a determination . . . that a species is an endangered

¹⁹ 16 U.S.C. § 1532(3).

²⁰ P.L. 93-205 (Dec. 28, 1973).

²¹ P.L. 95-632, §§ 11, 13 (Nov. 10, 1978).

²² 16 U.S.C. § 1532(5)(B).

species or a threatened species, designate any habitat of such species which is then considered to be critical habitat.”²³ The 1982 amendments also provided that for species listed under the ESA prior to the 1982 Amendments, procedures used to designate critical habitat shall be subject to the regulations for proposing revisions to critical habitat.²⁴

Because previously listed species have not been subject to the mandatory provisions in the 1978 and 1982 amendments for designation of critical habitat, FWS has not designated critical habitat for most of these species. The legislative history of the 1978 ESA amendments does not explain why Congress mandated the designation of critical habitat only for species listed after the amendments. This distinction cannot be based on differing biological needs, particularly because many of the previously listed species are among the most endangered with the most threatened habitats (*e.g.*, Florida panther, key deer). This distinction, unfortunately, has caused critical habitat designations for previously listed species to be largely ignored. Prior to the ESA amendments of 1978, there were 212 U.S. plant and animal species listed within the United States. At the time of the 1978 amendments, only thirty-two species had designated critical habitat. As of January 26, 2003, only forty of these early-listed species (18.9%) had designated critical habitat. Therefore, in the twenty-five years between the 1978 amendments and 2003, critical habitat was designated for only eight additional species. The remaining 172 endangered and threatened species (81.1%) listed prior to the 1978 amendments still lack critical habitat.²⁵

Certainly, Congress’ stated rationale for mandating critical habitat designation for newly listed species applies equally to previously listed species. In the Senate floor discussion prior to

²³ 16 U.S.C. § 1533(a)(3)(A).

²⁴ Pub. L. 97-304 § 2(b)(2) (1982).

²⁵ Paulson 2003. No Endangered Species Left Behind: Correcting The Inequity In Critical Habitat Designation For Pre-1978-Amendment Listed Species, 25 Hawaii L. Rev. 525, 536-37.

passage of S. 2899, which became the 1978 ESA amendments, Senator Garn, the sponsor of the amendment requiring designation of critical habitat, stated:²⁶

When a federal land manager begins consideration of a project, or an application for a permit, it is essential that he know, not only of the existence of an endangered species, but also of the extent and nature of the habitat that is critical to the continued existence of that species. Unless he knows the location of the specific sites on which the endangered species depends, he may irrevocably commit Federal resources, or permit the commitment of private resources to the detriment of the species in question.

* * *

One of the major reasons for this amendment is that we sincerely want to protect the endangered species. Placing it on the list does not necessarily do that. If you do not have the area designated for its critical habitat necessary for its continued existence, then you may have infringements upon that area that could endanger the species.

Congress specifically found, at least for newly listed species, that critical habitat designation would be beneficial to listed species and, thus, is meant to be the norm. Unfortunately, even for newly listed species, it has become the exception. As the Tenth Circuit Court of Appeals observed:

The root of the problem lies in the FWS's long held policy position that [critical habitat designations] are unhelpful, duplicative, and unnecessary. Between April 1996 and July 1999, more than 250 species had been listed pursuant to the ESA, yet [critical habitat designations] had been made for only two. Further, while we have held that making a [critical habitat designation] is mandatory once a species is listed, the FWS has typically put off doing so until forced to do so by court order [citations omitted].²⁷

Despite Congressional intent to require critical habitat designation, FWS has regularly used the limited exceptions to concurrent designation by finding that designation is either not prudent or not determinable. The not prudent and not determinable exceptions, however, do not directly apply to the revision of critical habitat provision in 16 U.S.C. § 1533(b)(3)(D), under which this Petition should be considered.

As defined under the ESA in 16 U.S.C. § 1532(5)(A):

²⁶ Congressional Record, July 19, 1978, Senate Consideration and Passage with Amendments of S. 2899.

²⁷ *New Mexico Cattle Grower's Ass'n v. FWS*, 248 F.3d 1277, 1283 (10th Cir. 2001).

The term “critical habitat” for a threatened or endangered species means—

- (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and
- (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species

As the ESA’s definition of critical habitat indicates, habitat that is currently unoccupied by a listed species can be designated as critical where it is essential for the conservation of the species. Indeed, the protection of unoccupied habitat under a critical habitat designation is an important example of the added value of critical habitat designations beyond that provided by the consultation provisions of Section 7 of the ESA.²⁸

FWA rules further define critical habitat as follows:²⁹

- (b) In determining what areas are critical habitat, the Secretary shall consider those physical and biological features that are essential to the conservation of a given species and that may require special management considerations or protection. Such requirements include, but are not limited to the following:
- (1) Space for individual and population growth, and for normal behavior;
 - (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
 - (3) Cover or shelter;
 - (4) Sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally;
 - (5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

When considering the designation of critical habitat, the Secretary shall focus on the principal biological or physical constituent elements within the defined area that are essential to the conservation of the species. Known primary constituent elements shall be listed with the critical habitat description. Primary constituent elements may include, but are not limited to, the following: roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, host species or plant pollinator, geological formation, vegetation type, tide, and specific soil types.

²⁸ See discussion on consultation *infra* Part VI.F.

²⁹ 50 C.F.R. 424.12(b).

B. Recovery Planning

Another major protective measure of the ESA is recovery planning. When a species is listed, the FWS must “develop and implement plans... for the conservation and survival” of the species.³⁰

FWS must incorporate in each plan:

- (i) a description of such site-specific management actions as may be necessary to achieve the plan’s goal for the conservation and survival of the species;
- (ii) objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section, that the species be removed from the list; and
- (iii) estimates of the time required and the cost to carry out those measures needed to achieve the plan's goal and to achieve intermediate steps toward that goal.³¹

Recovery plans can incorporate site-specific management actions, including designation of critical habitat.

FWS has developed and periodically revised a Recovery Plan for the Florida panther. The first Florida Panther Recovery Plan was approved by FWS on December 17, 1981. The Recovery Plan was revised on June 22, 1987, March 13, 1995, and most recently on November 1, 2008.³² “The goal of this revised recovery plan is to achieve long-term viability of the Florida panther to a point where it can be reclassified from endangered to threatened, and then removed from the list of endangered/threatened species.”³³

In addition to the FWS Florida Panther Recovery Plan, in 1993, FWS, along with the National Park Service, Florida Game and Freshwater Fish Commission (now the “Florida Fish and Wildlife Conservation Commission” or “FWC”) and Florida Department of Environmental Protection, prepared the Florida Panther Habitat Preservation Plan (“HPP”) for the Interagency

³⁰ 16 U.S.C. § 1533(f)(1).

³¹ *Id.*

³² Florida Panther Recovery Plan, Third Revision (“Recovery Plan”) (FWS, November 1, 2008). The third revision was circulated for public comment on January 31, 2006, by FWS. 71 Fed. Reg. 5066 (Jan. 31, 2006). Technical/Agency Draft Florida Panther Recovery Plan, Third Revision (Jan. 31, 2006), and was approved with changes by the Regional FWS Director on November 1, 2008.

Florida Panther Council.³⁴ The purpose of the HPP is to “promulgate actions that will assure the long-term preservation of habitat considered essential for maintaining a self-sustaining population of panthers in south Florida.”³⁵ The HPP recommended, among other things, the designation of as much as 3 million acres of critical habitat for the Florida panther in South Florida.³⁶ Then on May 18, 1999, FWS produced the South Florida Multi-species Recovery Plan, “specifically designed to recover the 68 federally listed species through the restoration of the 23 diverse ecological communities in this region.”³⁷

C. Section 7 Consultations

According to FWS, there were 112 formal consultations regarding Florida panthers between 1984 and 2007, where FWS found that actions undertaken or authorized by other federal agencies “may affect” the Florida panther.³⁸ Most of these have been with the United States Army Corps of Engineers as a result of applications for Clean Water Act Section 404 dredge and fill permits for residential developments, commercial developments, highways, and mining operations in wetlands in South Florida.

To facilitate these consultations, FWS developed the so-called “Panther Key,” as an interim tool to depict the Florida panther consultation area where the Corps of Engineers should assume that permits for new developments in wetlands “may affect” the Florida panther.³⁹ On the other hand, FWS would permit the Corps of Engineers to assume that projects outside this mapped area

³³ Recovery Plan at x.

³⁴ Florida Panther Habitat Preservation Plan (“HPP”), South Florida Population. Interagency Florida Panther Council (Nov. 1993).

³⁵ HPP at 2.

³⁶ HPP at 38.

³⁷ South Florida Multi-Species Recovery Plan, USFWS (May 18, 1999) at iii.

³⁸ FWS Biological Opinion for Parklands Collier, Corps Application No. SAJ-2001-6580 (Oct. 2, 2007) at 31-32.

³⁹ Florida Panther Effect Determination Key, FWS (February 19, 2007).

would not affect the panther. The Panther Key, as revised, is currently being used as the area in which consultation with FWS should take place under the ESA.⁴⁰

V. CURRENT THREATS TO THE FLORIDA PANTHER

Habitat loss, degradation, and fragmentation is the greatest threat to panther survival, while lack of human tolerance threatens panther recovery. Panther mortality due to collisions with vehicles threatens potential population expansion.⁴¹

A. Habitat Loss

As discussed above, Florida panthers require large tracts of forested habitat to survive. The states located in the historic range of the Florida panther have seen a dramatic decline in forested lands since the arrival of Europeans. In 1630, Arkansas, Louisiana, Mississippi, Alabama, Georgia and Florida had approximately 180 million acres of forested lands. By 1999, the number of forested acres had declined to 112 million acres, a decrease of 37.6 percent.⁴²

Panther habitat loss in Florida has been even more dramatic. Since 1630, Florida's forested lands have decreased by 45.6 percent.⁴³ The pace of forest loss has increased in the last century. Between 1936 and 1987, forested lands in Florida declined by 21 percent, a loss of 4.3 million acres.⁴⁴ That loss is equivalent to the average home range of 35-70 male panthers and 100-200 female panthers.⁴⁵ More importantly, from 1952 to 1999, Florida has lost 7.76 million acres of native pine forests, a decline of more than 75 percent.⁴⁶ During that same time period, Florida lost almost 20 percent of its upland hardwood forests.⁴⁷

⁴⁰ FWS Biological Opinion for Parklands Collier, Corps Application No. SAJ-2001-6580 (Oct. 2, 2007) at 36-42.

⁴¹ Recovery Plan at ix.

⁴² Roger C. Conner and Andrew J. Hartsell, *Forest Area and Conditions, in Southern Forest Resource Assessment*, 357-401, 358 (David N. Wear and John G. Greis eds., U.S. Dept. of Agriculture, Forest Service, Gen. Tech. Rep. SRS-53, 2002).

⁴³ *Id.*

⁴⁴ Randy Kautz, Historical Trends within the Range of the Florida Panther, in Proceedings of the Florida Panther Conference (Dennis Jordan ed., 1994).

⁴⁵ *Id.*

⁴⁶ Roger C. Conner and Andrew J. Hartsell, *supra*, 373-375.

⁴⁷ *Id.*

The extensive loss of Florida panther habitat is a result of Florida's rapidly growing human population. Between 1900 and 1990, Florida's population grew from 528,542 to 12.94 million people.⁴⁸ From 1990 to 2000, the state's population grew by another 23.5 percent to 15.98 million people.⁴⁹ The population had increased to 18,089,889 by 2006.⁵⁰ South Florida has seen the most rapid population growth.⁵¹ In 1900, only 2,600 people lived in South Florida; today, more than half of the state's population, or approximately 9 million people, lives there. By 2025, more than 20 million people will live in Florida.⁵²

Development in South Florida is compromising the habitat available to the development of a self-sustaining panther population. With growth have come dramatic changes in land uses in Florida which have drastically altered wildlife habitat in the state. Between 1936 and 1987, land dedicated to crops and range increased by 4.25 million acres, an increase of 30 percent, and urban areas increased by 3.95 million acres, an increase of 538 percent.⁵³ The conversion of panther habitat continues as Florida's land uses continue to change. In Southwest Florida, row crop and sugarcane acreage each increased by 21 percent, citrus increased by 75 percent, and rangeland—much of it suitable for occasional occupation by panthers—decreased by 10 percent between 1986

⁴⁸ U.S. Census Bureau, FLORIDA: Population of Counties by Decennial Census: 1900 to 1990 (visited Nov. 25, 2008) <<http://www.census.gov/population/cencounts/fl190090.txt>>.

⁴⁹ U.S. Census Bureau, Florida QuickFacts from the US Census Bureau (visited Nov. 25, 2008) <

⁵⁰ U.S. Census Bureau, Fact Sheet for Florida, (visited Nov. 25, 2008), <http://factfinder.census.gov/servlet/ACSSAFFacts?_event=Search&geo_id=&_geoContext=&_street=&_county=&_cityTown=&_state=04000US12&_zip=&_lang=en&_sse=on&pctxt=fph&pgsl=010>

⁵¹ U.S. Census 2007 Population Estimates for Florida -- County, (visited Nov. 25, 2008), <http://factfinder.census.gov/servlet/GCTTable?_bm=y&geo_id=04000US12&_box_head_nbr=GCT-T1-R&ds_name=PEP_2007_EST&_lang=en&redoLog=false&mt_name=PEP_2007_EST_GCTT1R_ST2S&-format=ST-2S&_sse=on>

⁵² U.S. Census Bureau, Projections of the Total Population of States: 1995 to 2025 (visited Nov. 25, 2008) <<http://www.census.gov/prod/2/pop/p25/p25-1131.pdf>>.

⁵³ Randy Kautz, *supra*.

and 1990. The losses of rangeland were about evenly distributed between agricultural development and urbanization.⁵⁴

In 1993 approximately 53 percent of the occupied range of the Florida panther occurred on private lands.⁵⁵ While the area of public land used by the panther has increased since that time, private land is still critical to the survival of the panther. A 1990 population viability analysis found that if panther habitats on private land are lost, existing public lands in South Florida are only capable of supporting only 9 to 22 individual panthers, well below the population that is required to sustain a viable population.⁵⁶

The Recovery Plan is predicated on a population viability analysis that suggests that a population number of 240 panthers is needed for long-term viable persistence.⁵⁷ Populations of greater than 240 have a high probability of persistence, low probability of extinction over 100 years, are able to retain 90% of their heterozygosity (representation), and can tolerate some habitat loss or mild catastrophes. Populations within the 80 to 100 range are likely stable with a low probability of extinction for 100 years, have slowly declining heterozygosity, and are vulnerable to habitat loss or catastrophes. According to Root (2004), these models indicate that unless we are able to safeguard the current condition, amount, and configuration of the occupied panther habitat, the long-term viability of the panther is not secure. For recovery, as contrasted with mere survivability, the Plan recommends that, in addition to protecting habitat for the South Florida population, two additional Florida panther populations of at least 80 panthers should be established with interaction among the three to provide an adequate margin of safety for full recovery.⁵⁸

⁵⁴ Multi-species Recovery Plan 4-128.

⁵⁵ HPP at iii.

⁵⁶ David S. Macher, *The Florida Panther and Private Lands*, 4(2) *Cons. Biol.* 167-70 (1990); HPP at iii.

⁵⁷ Recovery Plan at 92.

⁵⁸ Recovery Plan at 96-97.

B. Habitat Fragmentation

Besides a direct loss of habitat, Florida's human population growth and corresponding change in land uses have fragmented much of the remaining suitable panther habitat. As discussed above, Florida panthers require large blocks of contiguous habitat. Roads, urban development and sprawl, and agriculture fragment expanses of forested habitat preferred by panthers and disrupt dispersal of juvenile panthers. Habitat fragmentation isolates populations, subjecting them to demographic and stochastic pressures, thus reducing their chances for survival. "In Florida suitable (and perhaps even better) habitat for panthers does exist outside of southwest Florida, but to date habitat fragmentation appears to have prevented panthers from reestablishing reproducing populations north of the Caloosahatchee River."⁵⁹

Most large carnivores are only present in locations with low highway densities. Highways are a major factor contributing to habitat fragmentation. Florida panther den sites are located more than 1 kilometer away from roads.⁶⁰ In a panther reintroduction study, Texas cougars established home ranges in an area with one-half the road density of the region in which the study was conducted.⁶¹ That study also demonstrated that the cougars tended to avoid crossing more heavily traveled roads. In another study of 26 mountain lion home ranges, 22 (85 percent) included unimproved dirt roads, 15 (58 percent) included improved dirt roads, and only 6 (23 percent) included hard-surfaced roads.⁶² In south Florida, female panthers rarely establish home ranges in areas containing highways.⁶³

Besides fragmenting habitat, road mortality is a major source of Florida panther mortality. Between February 13, 1972 and June 31, 2007, 112 Florida panthers were involved in vehicular

⁵⁹ Fla. Fish and Wildlife Cons. Comm'n, Florida Panther Net, Habitat Fragmentation (visited Nov. 21, 2002) <<http://www.panther.state.fl.us/handbook/threats/fragmentation.html>>.

⁶⁰ David S. Maehr, Comparative Ecology of Bobcat, Black Bear, and Florida Panther in South Florida, *supra*.

⁶¹ Robert C. Belden and Bruce W. Hagedorn, *supra*.

⁶² F.G. Van Dyke et al., *Use of Road Track Counts in indices of Mountain Lion Presence*, 50 J. of Wildlife Mgmt. 102-09 (1986).

collisions at an average of 3.1 deaths per year, with only 8 of these panthers surviving a collision.⁶⁴ Since this time period, however, highway deaths have escalated dramatically. There were 15 panther deaths in 2007 resulting from vehicular collisions.⁶⁵ There were 22 panther deaths in 2008, with 10 of these deaths as a result of vehicular collisions.⁶⁶ And in the first month of 2009, there have already been 3 panthers killed on the highways of Southwest Florida.⁶⁷

The construction of wildlife underpasses on I-75 and SR 29 has decreased panther collisions in those areas, but two panthers have been killed on I-75 since 2007.⁶⁸ Because female panthers generally do not establish home ranges in areas containing highways, they are not likely to use underpasses. Thus, female panther habitat remains fragmented even in areas where underpasses have been constructed.⁶⁹

C. Habitat Degradation

South Florida's natural hydrology has been severely disrupted by a series of canals, dikes and other water control structures. The South Florida ecosystem was once a free-flowing river of grass extending from the Kissimmee chain of lakes to Florida Bay. Today, during the wet season, excess water is pumped away from urban and agricultural areas to the undeveloped areas of South Florida. This excess water can cause hammocks, habitat preferred by panthers, to become too wet, causing trees to rot and die, drowning deer and making it difficult for deer and raccoon to find food. In the dry season, water is pumped away from the undeveloped areas to meet the needs of urban and agricultural water uses. This leaves the undeveloped areas too dry, decreasing the amount of food

⁶³ David S. Maehr, Comparative Ecology of Bobcat, Black Bear, and Florida Panther in South Florida, *supra*.

⁶⁴ Biological Opinion of the Fish and Wildlife Service regarding the Army Corps of Engineers Permit No. SAJ-2001-6580, p. 19 (March 28, 2008).

⁶⁵ McBride et al., *Counting Pumas by Categorizing Physical Evidence*, *Southeastern Naturalist* 7(3): 381-400, 391 (2008).

⁶⁶ See e.g. Naples Daily News Staff Report, *Dead panther found near Corkscrew Swamp Sanctuary makes 16 deaths this year*, (visited on December 1, 2008) <<http://www.naplesnews.com/news/2008/sep/16/dead-panther-found-near-corkscrew-swamp-sanctuary-/>>.

⁶⁷ Personal communication from Darrell Land, FWC (Jan. 20, 2009).

⁶⁸ Fort Myers News-Press (Jan. 19, 2009).

available to deer, raccoons and wild hogs. The suppression of fire also decreases new plant growth of food preferred by deer.

D. Insufficient Prey Base

Florida panthers require sufficient numbers of large prey, i.e., white-tailed deer and wild hogs. An adult panther consumes the equivalent of 30-50 deer annually, while females rearing young typically require more.⁷⁰ Thus, activities that reduce the panther's prey base are also detrimental to the panther. Besides habitat degradation, white-tailed deer and hogs are subject to hunting. In 2000, there were 233,992 licensed hunters in the state of Florida.⁷¹ While human hunters of deer and hog hunters can co-exist with panthers, there have been instances of excessive hunting pressures in parts of the state. For example, in 1987, the Fakahatchee Strand State Preserve was closed to deer and hog hunting because of low deer numbers and poor health of resident panthers.⁷² Also in the 1980s, the Big Cypress National Preserve restricted hunting by prohibiting the use of dogs in hunting deer and hogs, shortening the hunting season by 100 days, restricting the use of off-road vehicles and eliminating night raccoon hunting because of concerns of disturbances caused to panthers.⁷³ Furthermore, Big Cypress National Preserve and all private lands south of I-75 have previously been excluded from the doe season.⁷⁴

E. Genetic Viability

Florida panther became genetically isolated from three other subspecies of *Puma concolor* more than a century ago. Habitat loss and fragmentation have isolated the remaining panthers in

⁶⁹ David S. Maehr, Florida Panther Movements, Social Organization, and Habitat Utilization, *supra*.

⁷⁰ HPP at 4.

⁷¹ Fla. Fish and Wildlife Cons. Comm'n, Summary the Economic Benefit of Florida's Fish and Wildlife Recreation (visited Dec. 4, 2002) <<http://floridaconservation.org/aboutus/economic.html>>.

⁷² Fla. Fish and Wildlife Cons. Comm'n, Florida Panther Net, Insufficient Large Prey (visited Nov. 21, 2002) <<http://www.panther.state.fl.us/handbook/threats/prey.html>>.

⁷³ *Id.*, citing David S. Maehr, *The Florida Panther: Life and Death of a Vanishing Carnivore* (1997).

⁷⁴ J.L. Schotemeyer et al., Prey Management for the Florida Panther: A Unique Role for Wildlife Managers, *Transactions 56th N. Am. Wildlife & Nat. Resources Conf.* (1991).

South Florida. The corresponding reduction in population size and inbreeding have resulted in the loss of genetic variability and diminished health. Low heterozygosity levels indicate that the Florida panther has lost about half its genetic diversity.⁷⁵ Data on polymorphism and heterozygosity, combined with multiple physiological abnormalities, indicates that the Florida panther population is suffering from inbreeding depression.⁷⁶ However, the known population of Florida panthers has been at least somewhat isolated on the southern peninsula of Florida since the end of the last ice age.

Given the philopatric nature of Florida panthers and all cougars in general (i.e., frequent matings between males and related females), and their relative isolation, which predated European settlement of North America, it is not surprising that Florida panthers exhibit the lowest levels of genetic variation among the few subspecies of cougar that have been examined.⁷⁷

The Florida panther does exhibit some traits of inbreeding depression, including congenital heart defects, decreased semen quality and lowered fertility. The Florida panther exhibits poorer male reproductive traits than other populations of *Puma concolor*.⁷⁸ In a study of 16 male Florida panthers, more were unilaterally cryptorchid, had lower testicular and semen volumes, poorer sperm motility and more abnormal sperm than other populations of *Puma concolor* in Texas, Colorado, Latin America and North American zoos.⁷⁹ However, there is no evidence that these poorer male reproductive traits have made it difficult for male Florida panthers to impregnate females in the wild.

⁷⁵ Melody E. Roelke, Florida Panther Biomedical Investigation (Fla. Game and Freshwater Fish Comm'n, Final Performance Report, July 1, 1986 to June 30, 1990, Study No. 7506, 1990).

⁷⁶ See, e.g., Melody E. Roelke et al., The Consequences of Demographic Reduction and Genetic Depletion in the Endangered Florida Panther, 3 *Current Biol.* 340-50; Mark A. Barone et al., Reproductive Characteristics of Male Florida Panthers: Comparative Studies from Florida, Texas, Colorado, Latin America, and North Florida Zoos, 7(1) *J. of Mammalogy* 150-162 (1994).

⁷⁷ David S. Mahr, The Florida Panther in Modern Mythology, 18(2) *Nat. Areas J.* 179-184, 181 (1998) (citation omitted).

⁷⁸ Mark A. Barone et al., *supra*.

⁷⁹ D.E. Wildt, Endangered Species Spermatozoa: Diversity, Research and Conservation, in *Function of Somatic Cells in the Testes* 1-24 (A. Bartke ed., 1994).

Despite obstacles, the South Florida population continues to produce enough kittens to replace lost residents, fuel a captive breeding program and allow for population growth.⁸⁰

Cardiac problems, another trait of inbreeding depression, have also been reported in Florida panthers. For example, congenital heart defects were detected in 11 Florida panthers between 1990 and 1991.⁸¹ However, cardiac problems have been involved in only two known panther deaths, and in both of those situations the cardiac problems may have been exacerbated by the captive management of those individuals.⁸²

Because of concerns with genetic viability, 8 adult females from Texas have been added to the population since 1995 to enhance genetic variability and stimulate natural gene flow.⁸³ Introduction of reproductive female cougars from Texas has clearly contributed to the recent Florida panther population increase. However, there is no evidence that the increase is the result of genetic improvements to the population. Nonetheless, the introduction of Texas cougars and their subsequent contribution to the population may have created the best opportunity in decades for the Florida panther to expand its range—an unanticipated benefit of genetic management.⁸⁴

F. Disease and Environmental Contaminants

Another threat to small, inbred populations is disease. Inbreeding itself may have negative effects on the immune system.⁸⁵ Florida Panthers are subject to exposure to several potentially serious diseases including feline calicivirus, feline panleukopenia virus, feline infectious peritonitis,

⁸⁰ David S. Maehr, *The Florida Panther in Modern Mythology*, *supra*, citing David S. Maehr and Gerard B. Caddick, *Demographics and Genetic Introgression in the Florida Panther*, 9 *Cons. Biol.* 1295-98 (1995).

⁸¹ Melody E. Roelke, *Florida Panther Biomedical Investigation* (Fla. Game and Freshwater Fish Comm'n, Annual Performance Report, July 1, 1990 to June 30, 1991, Study No. 7506, 1991).

⁸² David S. Maehr and Gerard B. Caddick, *Demographics and Genetic Introgression in the Florida Panther*, 9 *Cons. Biol.* 1295-98 (1995).

⁸³ David S. Maehr et al., *Florida Panther Dispersal and Conservation*, *supra*, citing E. Darrell Land and Robert C. Lacy, *Introgression Level Achieved Through Florida Panther Genetic Restoration*, 17 *Endangered Species Update* 100-105 (2000).

⁸⁴ David S. Maehr et al., *Florida Panther Dispersal and Conservation*, *supra*, at 195.

⁸⁵ S.J. O'Brien et al., *Genetic Basis for Species Vulnerability in the Cheetah*, 227 *Science* 1,428-34 (1985).

and feline immunodeficiency virus.⁸⁶ Between 1979 and 1987, disease accounted for 5.1 percent of Florida panther mortality.⁸⁷ Since 2002 the feline leukemia virus (FeLV) has become an issue for the Florida panther population.⁸⁸ Between 2002 and 2005, 23 panthers tested positive for the FeLV antigen, and five panthers died from FeLV-related diseases. FWC has begun vaccinating panthers against FeLV, which has been successful since 2005.⁸⁹

Environmental contaminants are another threat to Florida panthers. This first became evident in 1989 after an examination of a female panther that died in Everglades NP revealed that mercury toxicosis was the cause of death.⁹⁰ This 3-4 year-old female's liver contained 110 parts per million of mercury and her tissues also contained high levels of polychlorinated biphenels ("PCBs") and pesticide residues. Death from mercury toxicosis in feral domestic cats in Japan with liver concentrations of 37-145 ppm has been reported.⁹¹

In 1996, 1 million acres of the Everglades drainage system contained bass with mercury levels of 1.5 ppm—three times the level the Florida Department of Health considers safe for human consumption.⁹² The major source of mercury is likely atmospheric pollution from metals mining and smelting, coal-fired utilities and industry and solid waste incinerators.⁹³ Once deposited, mercury is taken up by fish, crawfish and other aquatic organisms, which are in turn eaten by birds, alligators and raccoons. Florida panthers that live north of I-75, where panthers feed primarily feed

⁸⁶ Michael R. Dunbar, Florida Panther Biomedical Investigations (Fla. Game and Freshwater Fish Comm'n, Annual Performance Report, July 1, 1990 to June 30, 1994, Study No. 7506, 1994).

⁸⁷ Fla. Fish and Wildlife Cons. Comm'n, Florida Panther Net, Causes of Mortality of Florida Panthers 1979-1997 (visited Nov. 21, 2002) <<http://www.panther.state.fl.us/handbook/natural/pantherdeath.html>>.

⁸⁸ FWS Biological Opinion for Parklands Collier, Corps Application No. SAJ-2001-6580 (Oct. 2, 2007) at 22.

⁸⁹ Brown MA, Cunningham MW, Roca AL, Troyer JL, Johnson WE, O'Brien SJ. Genetic characterization of feline leukemia virus from Florida panthers. *Emerg Infect Dis* [serial on the Internet]. 2008 Feb. Available from <http://www.cdc.gov/EID/content/14/2/252.htm>

⁹⁰ Michael R. Dunbar, *supra*, citing FWS, Status Report on Mercury Contamination in Florida Panthers (1989).

⁹¹ *Id.*, citing F. Takeuchi et al., The Outbreak of Minamata Disease (Methyl Mercury Poisoning) in Cats on North Western Ontario Reserves, 13 *Env'l Res.* 215-228 (1977).

⁹² Fla. Fish and Wildlife Cons. Comm'n, Florida Panther Net, Mercury & Other Environmental Contaminants (visited Nov. 21, 2002) <<http://www.panther.state.fl.us/handbook/threats/mercury.html>>.

on deer and hogs, have been shown to have the lowest levels of mercury. Panthers that live in the Everglades and feed more on raccoons and other species in the aquatic food web have the highest concentrations of mercury.⁹⁴ While mercury levels in the South Florida ecosystem have declined in recent years, much of the Everglades marsh system remains contaminated, with approximately 65% of the marsh exceeding 77 parts per billion mercury in mosquitofish, a concentration the U.S. Environmental Protection Agency has recommended as being protective of top predators such as birds and mammals.⁹⁵

VI. CRITICAL HABITAT DESIGNATION IS NECESSARY FOR THE SURVIVAL AND RECOVERY OF THE FLORIDA PANTHER.

A. The Best Available Science Supports Designation of Critical Habitat for the Florida Panther.

The science of Florida panther conservation has progressed considerably during the time since the species was listed as endangered in 1967 to the point where critical habitat for the Florida panther has been determined. Beginning in 2000, FWS was involved in developing a landscape-level conservation strategy for the Florida panther that directly supports and provides the best available science for designation of critical habitat.⁹⁶ FWS created the Multi-species/Ecosystem Recovery Implementation Team (MERIT) to assist with implementation of the MSRP after it was signed in 1999, which included the Florida Panther Subteam, composed of many of the notable panther experts in the nation.⁹⁷

The Florida Panther Subteam developed a landscape-level strategy for the conservation of the panther population in South Florida, which was not finalized or published by FWS. Many of the

⁹³ Frank Stephenson, Florida's Mercury Menace, 8(2-3) Fla. St. U. Res. in Rev. 10-21 (1997), available on FSU's Web site, (visited Dec. 4, 2002) <<http://www.research.fsu.edu/researchr/fallwinter97/features/mercury.html>>.

⁹⁴ Michael R. Dunbar, *supra*.

⁹⁵ Scheidt, D.J., and P.I. Kalla. 2007. Everglades ecosystem assessment: water management and quality, eutrophication, mercury contamination, soils and habitat: monitoring for adaptive management: a R-EMAP status report. USEPA Region 4, Athens, GA. EPA 904-R-07-001. p. 2. <http://www.epa.gov/region4/sesd/sesdpub_completed.html>

⁹⁶ Recovery Plan, p. 26-27.

Panther Subteam members, however, refined the methodology, further analyzed the data, and better defined the results of this landscape-level strategy resulting in a recent peer-reviewed publication referred to throughout this Petition as Kautz *et al.* 2006.⁹⁸ The Conservancy believes that this article and the research embodied therein constitute best available science supporting the designation of critical habitat for the Florida panther. FWS has relied upon this article for much of its Panther Recovery Plan 3rd Revision and is citing and relying upon the published article in recent Biological Opinions.

In the process of developing the landscape-level conservation strategy for the Florida panther FWS and the Panther Subteam revisited some of the previous panther science, calling into question some of the conclusions from previous published studies.⁹⁹ Some of these now discredited conclusions have been used to delay and resist the use of a landscape-level conservation strategy for panther conservation and, in particular, the designation of certain private lands as critical panther habitat in South Florida. These discredited conclusions include: “1) panthers are forest obligates, 2) panthers require large (>500 ha) forest patches, 3) panthers are reluctant to cross 90-m gaps of nonforest habitat, and 4) the value of potential panther habitat declines linearly with distance to a population core in south Florida, USA.”¹⁰⁰ Furthermore, in several Biological Opinions, FWS has relied upon an undisclosed “panther habitat assessment model” to allow for the destruction of panther habitat on private lands in exchange for “mitigation.”¹⁰¹ These simplistic

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ Beier et al., Evaluating Scientific Inferences about the Florida panther, *Journal of Wildlife Management* 70(1): 236-245 (2006).

¹⁰⁰ *Id.* at 236. This article was based upon the scientific review performed by Beir, et al., for FWC: An Analysis of Scientific Literature Related to the Florida Panther, Final Report (December 2003).

¹⁰¹ *See e.g.* FWS Biological Opinion for Parklands Collier, Corps Application No. SAJ-2001-6580 (Oct. 2, 2007) at 41-44.

models are only one component of evaluating panther habitat, and previous versions used by FWS have been discredited by Beier, et al.¹⁰²

In addition, FWS granted an Information Quality Act challenge filed by FWS employee Andrew Eller to several Florida panther reports, including several Biological Opinions, containing the discredited conclusions and data referenced above.¹⁰³ Among other things, FWS agreed to address all peer review comments as well as recommendations made by the Beier Scientific Review Team concerning the draft landscape-level conservation strategy for the Florida panther that had been drafted by FWS with the MERIT Panther Subteam.¹⁰⁴

B. Critical Habitat Designation is Necessary for Specific Areas Currently Occupied by the Florida Panther.

Florida panther critical habitat constitutes “the specific areas within the geographical area occupied by the species . . . on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection”¹⁰⁵ Relevant “requirements” from 50 C.F.R. § 424.14(b) include, but are not limited to:

- (1) Space for individual and population growth, and for normal behavior;
- (2) Food, water . . . or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, rearing of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

Kautz, *et al.*, analyzed Florida panther telemetry data from 1981 to 2001, first to determine the area which Florida panthers currently occupy.¹⁰⁶ Although there are telemetry points for

¹⁰² *Id.*

¹⁰³ Complaint of Eller and PEER Before the U.S. Department of the Interior U.S. Fish and Wildlife Service (May 4, 2004).

¹⁰⁴ FWS News Release, U. S. Fish and Wildlife Service Will Correct Panther Information in Response to Information Quality Act Challenge (March 21, 2005).

¹⁰⁵ 16 U.S.C. § 1532(5)(A).

¹⁰⁶ Kautz *et al.* at 119 (2006).

panthers that have dispersed north of the Caloosahatchee River into Central Florida, Kautz, *et al.*, focused their analysis on the area south of the river where 99% of the telemetry records have been recorded.¹⁰⁷ This Petition also focuses on the area south of the river, but the Conservancy believes that areas north of the Caloosahatchee should eventually be designated as critical habitat so that a second population can develop as recommended by the Recovery Plan.¹⁰⁸

Kautz, *et al.*, then performed compositional analysis and Euclidean distance analysis of important habitat requirements of Florida panthers for the area occupied by the breeding population, which contained the telemetry records for 79 panthers greater than 2 years old for which more than 50 telemetry records were available.¹⁰⁹ Based on these analyses Kautz, *et al.*, identified a Primary Zone of occupied area composed of a matrix of forest patches surrounded by non-urban buffers that is “essential to the long-term viability and survival of the Florida panther.”¹¹⁰

The Primary Zone is shown in Figure 2.¹¹¹ It consists of 918,895 ha of land, of which 671,654 ha (73%) were in public ownership and 247,241 ha (27%) were in private ownership at the time of the study.¹¹² Based upon panther density figures, this area can support 71-84 panthers. Population Viability Analyses show that 71-84 panthers is a population that has a high probability of persistence over a 100-year period, provided that there is no further habitat loss or catastrophes, such as disease.¹¹³ The Primary Zone, in the words of Kautz and his colleagues, is “just enough space to support a population that is barely viable demographically as long as the habitat base remains stable.”¹¹⁴

¹⁰⁷ *Id.*

¹⁰⁸ Recovery Plan at 5 (2006).

¹⁰⁹ Kautz et al. at 120-21 (2006).

¹¹⁰ Kautz et al. at 122 (2006).

¹¹¹ GIS files of the Kautz, et al., map are available for detailed mapping of the critical habitat for designation from the authors and from the Conservancy.

¹¹² Kautz et al. at 129 (2006).

¹¹³ *Id.*

¹¹⁴ *Id.*

At last count, there were 96 panthers in the area south of the Caloosahatchee.¹¹⁵ This population is more viable than the 71-84 number that Kautz et al, estimated could be barely supported by the Primary Zone, but it may put a strain on the available habitat and push some male panthers to disperse into other areas. There is evidence that this has happened, as one panther has been tracked in coastal preserves in Western Collier County, near the City of Naples, and several others have dispersed into the area north of the Caloosahatchee.¹¹⁶

Because critical habitat is the area essential to the conservation of the Florida panther, which means the recovery of the species, an amount that is barely enough for survival is necessary but insufficient for designation as critical habitat. Therefore, based on Kautz, *et al.*, two additional areas should be designated: the Secondary Zone and the Dispersal Zone. These are discussed below.

¹¹⁵ McBride, et al. (2008).

¹¹⁶ Lotz, PantherNet Field Notes January – March 2007, FWC; see also, McBride, et al. at 342-83 (2008).

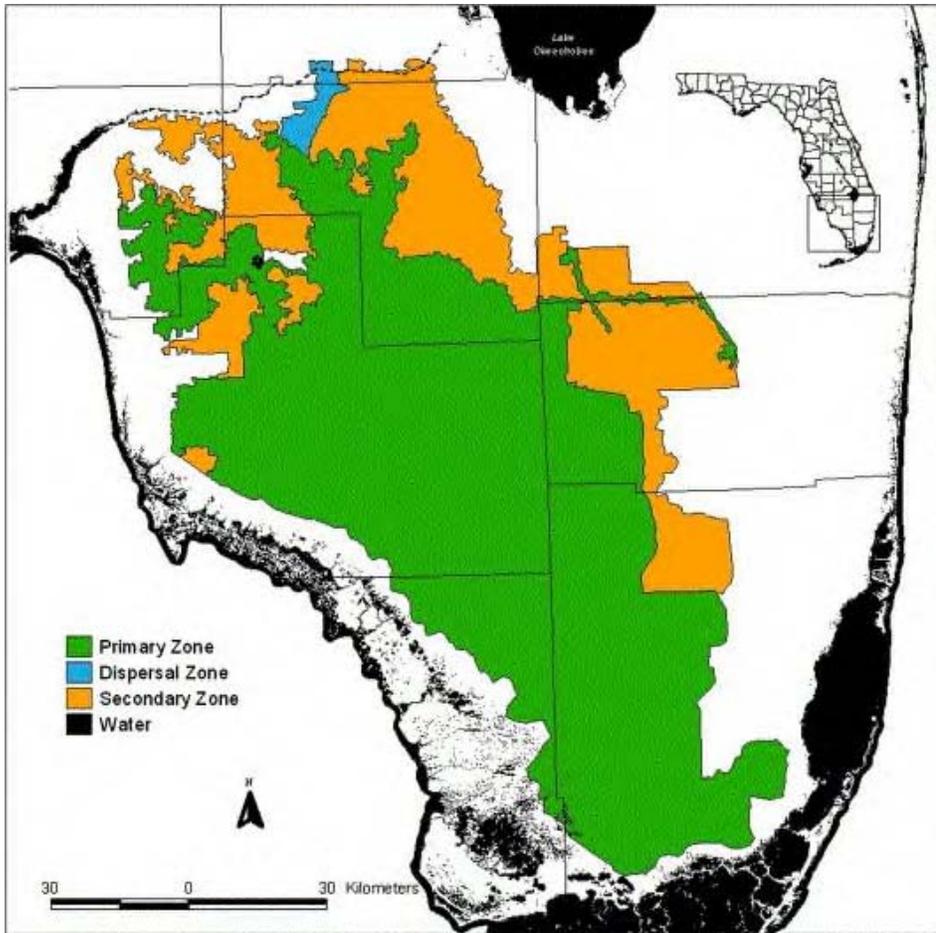


Figure 2: Location of Primary, Dispersal, and Secondary Zones for Designation as Critical Habitat. (Kautz, et al. 2006).

C. Critical Habitat Designation is Necessary for Specific Areas Outside the Areas Currently Occupied by the Florida Panther.

Critical habitat for the Florida panther also constitutes specific areas outside the geographical area occupied by the species, because the designation in the occupied range is inadequate to ensure the conservation of the species. 16 U.S.C. § 1532(5)(A); 50 C.F.R. § 424.14(e). According to Kautz, *et al.*, these include the Dispersal Zone, an area intended to maintain a landscape linkage to potential habitat north of the Caloosahatchee River, and the Secondary Zone, a set of lands immediately adjacent to the Primary Zone but containing lower quality habitat and few records of panther use.

1. Dispersal Zone

The recovery, as compared to the mere survivability, of the Florida panther is predicated on the establishment of two additional (in addition to a viable South Florida population) viable, self-sustaining populations within the historic range of the animal.¹¹⁷ The Recovery Plan defines conservation (when FWS can consider delisting the Florida panther) as the point at which (1) “Three viable, self-sustaining populations of at least 240 individuals (adults and subadults) each have been established and subsequently maintained for a minimum of twelve years; (2) Sufficient habitat quality, quantity, and spatial configuration to support these populations is retained / protected or secured for the long-term; (3) exchange of individuals and gene flow among subpopulations must be natural (i.e., not manipulated or managed).”¹¹⁸

To begin to achieve the goal of establishing a second Florida panther population as a further step toward conservation of the species, several panther scientists have identified the necessity of preserving a Dispersal Zone for panthers from South Florida to easily reach the Caloosahatchee River to cross to lands that are potentially suitable habitat on the north side of the river.¹¹⁹ These potential lands on the north side include the Telegraph Swamp watershed, the C.M. Webb Wildlife Management Area (now Babcock-Webb Wildlife Management Area), and the Fisheating Creek watershed.¹²⁰ The recent preservation of Babcock Ranch by the State of Florida heightens the potential for establishment of a self-sustaining panther population on the north side of the river.

Kautz, *et al.*, analyzed areas that would meet criteria for a dispersal zone using least-cost pathways analysis and a ranking of habitat components and determined that a 113-square-kilometer area along the Okaloacoochee Slough leading to a segment of the Caloosahatchee River that is relatively narrow in width (100m) and in an area where three collared panthers have crossed the river

¹¹⁷ Recovery Plan at 5.

¹¹⁸ Recovery Plan at xii.

¹¹⁹ Logan, et al., Florida Panther Habitat Preservation Plan, South Florida Population (Nov. 1993) at 34-36; App. C.; Cox, et al., Closing the Gaps in Florida’s Wildlife Habitat Conservation System, Florida Game and Fresh Water Fish Commission (1994) at 67-70.

in the past is the best area.¹²¹ The Dispersal Zone is shown in Figure 2. It varies from 3.0 to 7.8 km in width and intersects areas on the north side of the river considered potentially suitable for panther habitat and further dispersal. All of the Dispersal Zone was private land at the time of the study.¹²²

2. Secondary Zone

Kautz, et al., have delineated a Secondary Zone, adjacent to the Primary Zone, which is also essential to the conservation of the Florida panther.¹²³ Although radio-collared panthers have been tracked in this area, panthers may not inhabit the area on a regular basis.¹²⁴ The Secondary Zone is essential to an increasing panther population, because it located adjacent to the Primary Zone, can support additional panthers dispersing from the Primary Zone (potentially 25-30 with habitat restoration), and can support sub-adult males until they establish their own territories.¹²⁵

Kautz, et al., delineated the Secondary Zone by evaluating the landscape context in the potentially suitable areas adjacent to the Primary Zone.¹²⁶ The landscape context analysis looked at proximity to the Primary Zone and proximity to forest plus buffer patches, in addition to three land use variables (proximity to urban lands, intensity of land use, and road type and density) to delineate the Secondary Zone.¹²⁷ These habitat factors are comparable to the list of factors to be evaluated for designation of critical habitat in 50 C.F.R. § 424.12(b).

The Secondary Zone is shown in Figure 2. It consists of a total of 328,654 ha, of which 38% were in public ownership and 60% were in private ownership at the time of the study.¹²⁸

¹²⁰ *Id.*

¹²¹ Kautz et al. (2006).

¹²² Kautz et al. at 129 (2006).

¹²³ Kautz et al. at 130 (2006).

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ Kautz et al. at 123-125 (2006).

¹²⁸ Kautz et al. at 129 (2006).

D. Designating the Primary, Dispersal, and Secondary Zones as Critical Habitat is Essential for the Overall Conservation of the Florida Panther.

Kautz, *et al.*, finally discussed the overall conservation implications of the Primary, Secondary and Dispersal Zones taken together.¹²⁹ The ultimate conclusion bears quoting, as it provides further support for the designation of these three zones as critical habitat essential for conservation of the species.

The Primary, Dispersal, and Secondary zones comprise essential components of a landscape-scale conservation plan for the protection of a viable Florida panther population in south Florida. Taken together, the three zones in their current condition apparently have the capacity to support approximately 80-94 Florida panthers. A population of this approximate size has a high probability of persistence for 100 years and has a good chance of remaining stable or perhaps declining only slightly over the planning period. However, this conclusion assumes that (1) further loss of habitat in all 3 zones, but especially in the Primary Zone, is minimized, (2) the existing population will expand into areas of the Secondary Zone where habitat conditions are presently suboptimal and panthers are only occasionally known to occur, and (3) unforeseen catastrophes do not affect the population.¹³⁰

E. Designation of the Kautz, et al., Primary, Dispersal, and Secondary Zones as Critical Habitat is Consistent With and Would Further Implementation of Panther Recovery Plans.

Each of the Florida panther recovery plans that have been developed by FWS and interagency groups have called for an evaluation of the designation of critical habitat, either directly or indirectly. The Florida Panther Habitat Preservation Plan, developed by an interagency group consisting of FWS, Florida Game and Freshwater Fish Commission (now FWC), Florida Department of Environmental Protection, and the National Park Service, called for FWS to evaluate the need to designate critical habitat for the Florida panther and proposed a map of minimum area of 3 million acres for designation that is not too different from the Kautz, et al. Primary, Dispersal, and Secondary Zones.¹³¹

¹²⁹ Kautz et al. at 131 (2006).

¹³⁰ *Id.*

¹³¹ HPP at 38.

The FWS Florida Panther Recovery Plan, Second Revision, states bluntly, “[i]f the habitat of the panther is not protected and managed, the panther probably will not survive,” and commits that “[f]ederal, state and local agencies will implement habitat protection measures.”¹³² It also commits that “FWS will address the potential benefits of designating critical habitat.”¹³³ The 1999 South Florida Multi-Species Recovery Plan does not directly commit to designation of critical habitat for the Florida panther, but it incorporates the Florida Panther Habitat Preservation Plan and calls for the same actions to “preserve and protect Florida panther habitat.”¹³⁴

Finally, the Recovery Plan, 3rd Revision, relies heavily on the analysis of Kautz *et al.* in proposing several actions that would flow naturally from designating the Primary, Dispersal, and Secondary Zones as critical habitat. The Recovery Plan states:

The Primary Zone supports the only breeding panther population. To prevent further loss of population viability, habitat conservation efforts should focus on maintaining the total available area, quality, and spatial extent of habitat within the Primary Zone. The continued loss of habitat functionality through fragmentation and loss of spatial extent pose serious threats to the conservation and recovery of the panther. Therefore, conserving lands within the Primary Zone and securing biological corridors are necessary to help alleviate these threats.¹³⁵

The Dispersal Zone requires protection from development to provide a corridor to facilitate dispersal from south Florida to potentially suitable habitat north of the Caloosahatchee River. Maintaining connectivity is important not only to facilitate dispersal, but to enhance population exchange once female panthers have been reestablished in south-central Florida.¹³⁶

According to Root (2004), these models indicate that unless we are able to safeguard the current condition, amount, and configuration of the occupied panther habitat, the long-term viability of the panther is not secure. In addition, Kautz *et al.* (2006) suggests that unavoidable losses in the Primary Zone should be offset by habitat restoration or enhancement of habitat elsewhere in the Primary Zone, thereby increasing the functional value and carrying capacity of the remaining habitat. As a

¹³² Florida Panther Recovery Plan, Second Revision (1995) ¶ 19 at 33.

¹³³ Florida Panther Recovery Plan, Second Revision (1995) ¶ 16 at 32.

¹³⁴ Multi-species Recovery Plan 4-147.

¹³⁵ Draft Recovery Plan at 89.

¹³⁶ *Id.* at 92.

result, it is clear that conservation strategies should be used to maximize protection and restoration, if needed, in the Primary Zone.¹³⁷

Maintain the ability of the Primary, Secondary, and Dispersal Zones, as identified in Kautz et al. (in press), to contribute to a viable population of panthers. Maintain the quantity and quality of habitat in the Primary Zone, maintain the quantity and improve the quality in the Secondary Zone, and increase the quantity of protected acres and enhance the quality of the Dispersal Zone.¹³⁸

Develop and implement regulatory procedures and guidance that avoid habitat loss, degradation, and/or fragmentation as a result of federally funded or authorized projects and actions.¹³⁹

F. Other Methods for Conservation of the Florida Panther Under the ESA Are Not Sufficient Without Designation of Critical Habitat.

FWS has frequently taken the position that designation of critical habitat is unnecessary and counterproductive because other potential measures under the ESA are more beneficial to conservation of endangered and threatened species. In the context of mandatory designation of critical habitat for newly listed species, the federal courts have rejected this rationale.¹⁴⁰ Although FWS has discretion whether to designate critical habitat for the Florida panther, because it was listed prior to 1978, it does not have discretion to ignore the ESA interpretations by the federal courts that Section 7 jeopardy consultations, for instance, do not provide the same conservation benefits to endangered species as does designation of critical habitat.

Section 7 of the Act provides that “[e]ach Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is

¹³⁷ Id. at 96.

¹³⁸ Id. at 101.

¹³⁹ Id. at 102.

¹⁴⁰ “Neither the Act nor the implementing regulations sanctions nondesignation of habitat when designation would be merely less beneficial to the species” than other potential measures. *Natural Resources Defense Council v. DOI*, 113 F.3d 1121, 1127 (9th Cir. 1997).

determined by the Secretary... to be critical.” 16 U.S.C. § 1536(a)(2). If an agency determines that a proposed action may affect a listed species, that agency must engage in formal consultation with the FWS. 50 C.F.R. § 402.14. As part of consultation, the FWS must provide that agency with a biological opinion explaining how the proposed action will affect the species or its habitat. If the FWS determines that the proposed action will jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat, the biological opinion must suggest any “reasonable and prudent alternatives” that the FWS believes will avoid jeopardy or adverse modification. 16 U.S.C. § 1536(b)(3)(A).

Alternatively, if the biological opinion concludes that the agency action will not result in jeopardy or adverse modification, or if it offers reasonable and prudent alternatives to avoid those consequences, the FWS must provide the agency with a written statement (known as an “Incidental Take Statement”) that specifies the “impact of such incidental taking on the species,” any “reasonable and prudent measures that the [FWS] considers necessary or appropriate to minimize such impact,” and sets forth “the terms and conditions... that must be complied with by the Federal agency... to implement” those measures. 16 U.S.C. § 1536(b)(4).

Without critical habitat designation for a species, FWS only evaluates whether the action is likely to jeopardize the continued existence of the species in its consultations and biological opinions. Many times when FWS has determined that critical habitat designation would not benefit a listed species, it has claimed that the “destruction or adverse modification of critical habitat” prohibition in Section 7 of the ESA would not provide greater protection than the jeopardy prohibition in Section 7. FWS has based these claims on its regulatory definition of “destruction or adverse modification” as an “alteration that appreciably diminishes the value of critical habitat for

both the survival and recovery of a listed species.”¹⁴¹ Since 1998, however, at least eight courts (including three different Circuit Courts of Appeals) judged FWS’s adverse modification definition to be invalid. Two struck it down. None upheld it.

In striking down 50 C.F.R. § 402.02, the Ninth Circuit stated: “This can not be right. If the [FWS] follows its own regulation, then it is obligated to be indifferent to, if not to ignore, the recovery goal of critical habitat.”¹⁴² FWS’s position was also soundly rejected by the Fifth Circuit Court of Appeals holding invalid FWS’s reasoning equating jeopardy to adverse modification of habitat.

[T]he Services’ evaluation of the merits of critical habitat designation was premised on the view that jeopardy consultation was “functionally equivalent” to consultation under the destruction/adverse modification standard. This position was based on the fact that 50 C.F.R. § 402.02 defined both standards in terms of survival and recovery. As we have concluded that the regulatory definition of the destruction/adverse modification standard is flawed, this “functional equivalence” argument is untenable.¹⁴³

The position that designation of critical habitat would provide no additional benefit to a species than Section 7 consultation was also rejected in *Conservation Council for Hawaii v. Babbitt*.¹⁴⁴ The court observed that critical habitat designation had the separate value of a holistic approach to habitat conservation, whereas merely relying on the jeopardy clause in Section 7 resulted in a piecemeal approach to preservation:

Substantively, designation establishes a uniform protection plan prior to consultation. In the absence of such designation, the determination of the importance of a species’ environment will be made piecemeal, as individual federal projects arise and agencies consult with the FWS. This may create an inconsistent or short-sighted recovery plan.¹⁴⁵

¹⁴¹ 40 C.F.R. §402.02

¹⁴² *Gifford Pinchot Task Force et al. v. U.S. Fish & Wildlife Service*, 378 F.3d 1059, 1070 (9th Cir. 2004).

¹⁴³ *Sierra Club v. FWS*, 245 F.3d 434, 445 (5th Cir. 2001) (citations omitted).

¹⁴⁴ 2 F. Supp.2d 1280 (D. Haw. 1998)

¹⁴⁵ *Id.* at 1288.

The overwhelming evidence in South Florida is that consultation under the jeopardy standard has failed to adequately protect Florida panther habitat from adverse modification.¹⁴⁶ As mentioned above, FWS engaged in 112 formal consultations regarding Florida panthers between 1984 and 2007. These consultations resulted in permits that have impacted or will impact over 94,000 acres of Florida panther habitat. Despite the continued erosion of Florida panther habitat, FWS stated that none of the formal consultations during this period have resulted in a finding of jeopardy.¹⁴⁷

Besides providing additional protection to listed species, such as the Florida panther, critical habitat designation gives government and private actors fair warning of a listed species' presence when activities are proposed. This is a valuable resource that gives federal agencies, industry, conservation groups, and the interested public confirmation of Section 7 risk. "Critical habitat designation provides informational benefits to the public, state and local governments, and scientific organizations."¹⁴⁸

In addition to the habitat protection measures of the ESA, Congress also included protective measures for individuals of listed species. Thus, it is unlawful for any person to "take" a listed species. 16 U.S.C. § 1538(a)(1). Under the ESA, "[t]he term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." *Id.* § 1532(18). FWS regulations defined "harm" to mean "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or

¹⁴⁶ See e.g. *Fund For Animals v. Rice*, 85 F.3d 535 (11th Cir. 1996) (Florida panther habitat was not legally protected from harmful federal actions because it had not been officially designated as critical habitat); *National Wildlife Federation v. Norton*, 332 F. Supp. 2d 170 (D.D.C. 2004) (mining permit in Florida panther habitat invalidated because FWS Biological Opinion resulting from Section 7 ESA consultation failed to address cumulative impacts on panther habitat).

¹⁴⁷ FWS Biological Opinion for Parklands Collier, Corps Application No. SAJ-2001-6580 (Oct. 2, 2007) at 56, 120-125 (Table 2).

¹⁴⁸ *Sierra Club v. FWS*, 245 F.3d 434, 446 (5th Cir. 2001).

sheltering.” 50 C.F.R. § 17.3. Protection of critical habitat from destruction or adverse modification is obviously a much broader conservation measure than the prohibition of a take.

G. Local Government Land Use Protections for Panther Habitat are Inadequate for Conservation of the Species.

One Southwest Florida county, Collier County, has developed a willing-participant, incentive-based program called the Rural Lands Stewardship Area (“RLSA”) Program for private landowners intended to provide some protections for Florida panther habitat in exchange for increased development intensity and density on other lands in the Rural Lands Stewardship Area of eastern Collier County. In spite of the initial intent of the RLSA Program to protect panther habitat as envisioned and adopted in 2002, the program in reality allows for the location of new towns and villages, along with new roads, in locations that would adversely impact the Kautz, *et al.*, Primary Zone habitat in Collier County.¹⁴⁹

Instead of focusing on correcting these deficiencies in the RLSA, the major Collier County landowners in the RLSA are proposing revisions to the RLSA Program that would exponentially increase the amount of stewardship credits a landowner can generate, translating into additional intensive development in the rural areas. This proposal would also expressly allow for a 45,000 acre footprint for new towns and villages. While the program, as established to date, does have credits available for over 43,000 acres of new towns and villages, there is no specific entitlement to this amount of intensive development. By placing a so-called “cap” of 45,000 acres of new towns and villages within the Growth Management Plan, an entitlement for this amount of development is created. Such an entitlement is especially problematic, because the landowner proposal does not include assurances of additional protection for panther habitat in exchange for an assured maximum

¹⁴⁹ See Rural Lands Stewardship Area Review Committee page for current meeting notes and proposals <www.colliergov.net>.

footprint of development, which, if adopted, would equate to even greater pressure of intensive development within Primary habitat.

To accommodate this development footprint, some of the development would, by necessity, be within the Kautz, et al., Primary Zone.¹⁵⁰ The proposal would also increase the maximum size of new towns, from 4,000 acres to 5,000 acres, and increase the size of villages from 1,000 acres to 1,500 acres, with no requirement that these new projects be truly sustainable or self-sufficient. Because of this lack of assurance for sustainability, it is certain that a massive network of new roads would be necessary to support this new population. Figure 3, below, was shared with Collier County Transportation staff to depict the general locations for where the landowners envision new development and transportation networks will be located. It shows the potential for 21 new town nodes and the roads necessary to support this requested 45,000 acres of intensive development. Much of this new development would be in the Florida panther Primary Zone, the area Kautz, et al., described as “essential to the long-term viability and survival of the Florida panther.”

In addition to the proposed amendments to the RLSA Plan, one major landowner, Collier Enterprises Management, Inc., has proposed a new Town of Big Cypress in the Rural Lands Area that would impact 3,699 acres of Primary Zone habitat. The applicant is claiming compliance with the ESA based upon its compliance with the provisions of the Collier RLSA Plan.

As part of these new proposals, eastern Collier County landowners have created the Florida Panther Protection Program and have enlisted the participation of some of the conservation organizations concerned with protection of endangered species in South Florida.¹⁵¹ The Program would generate funds for a Panther Protection Fund by the transfer of Panther Habitat Units from

¹⁵⁰ See Letter, Jennifer Hecker, Conservancy of Southwest Florida, to Paul Souza, FWS, re Proposed Florida Panther Protection Plan (July 1, 2008).

¹⁵¹ The Conservancy chose not to become a signatory to the Memorandum of Understanding for this Program, although it did participate in many of the negotiations leading to the Memorandum.

Stewardship Sensitive Lands within the Rural Lands Stewardship Area to be used for restoration and protective measures for the panther. The Program is proposing the possible creation of panther corridors in the area and other protective measures in exchange for the proposed changes the landowners want to make to the Rural Lands Stewardship Area Program, as well as the commitment by the participating conservation organizations not to challenge any permits or biological opinions concerning development in the area that are consistent with the Program. The Memorandum of Understanding for the Program envisions some type of “Conservation Agreement” to be approved by FWS and FWC and the issuance of a biological opinion to cover all development in the whole area of the RLSA.¹⁵²

The Florida Panther Protection Program, however, does not consider avoidance or minimization of impacts, and thus, is no substitute for the important function of designation of critical habitat for the panther. The Program began with the agreement that 15,000 additional acres of panther habitat could be impacted for development, prior to the results of the scientific technical review process that is included in the Program. The Program is only for the Collier County Rural Lands Stewardship Area and is not a comprehensive program for protection of Florida panther habitat. In addition, it does not include public participation, which is required for the designation of critical habitat under the ESA. Designation and protection of critical habitat for the Florida panther should be pursued in a comprehensive public process with decisions based on the best available science, not the development plans of the landowners.

¹⁵² See <www.floridapantherprotection.com/pdf/MOU_Final.pdf>.

VII. CONCLUSION AND REQUEST FOR CRITICAL HABITAT DESIGNATION FOR SPECIFIC AREAS

After 41 years on the endangered species list without recovery, when threats to panther habitat are growing dramatically, the Florida panther is in dire need of the next important step for conservation of the species: designation of critical habitat. The best available scientific information supports critical habitat designation for the Florida panther in South Florida in the areas delineated by Kautz et al. (2006) as the Primary, Dispersal, and Secondary Zones. These specific areas contain the physical and biological features that are essential to the conservation of the Florida panther and that require special management considerations and protection.

Therefore, Petitioner hereby requests that the Secretary of the Department of the Interior and Director of the FWS:

1. At the earliest possible time, but not later than 90 days from receiving this Petition, find that this Petition presents substantial scientific information indicating that a designation of critical habitat determination for the Florida panther may be warranted, and promptly publish such finding in the Federal Register, 16 U.S.C. § 1533(b)(3)(D)(i);
2. At the earliest possible time, determine how the DOI and FWS intend to proceed with the requested designation of critical habitat, and promptly publish such determination in the Federal Register, 16 U.S.C. § 1533(b)(3)(D)(ii);
3. At the earliest possible time, give notice of intent to issue a regulation designating the critical habitat of the Florida panther to include those lands identified as the Primary, Secondary, and Dispersal Zones in Kautz, et al. (2006), and publish a general notice and complete text of the regulation in the Federal Register, 16 U.S.C. § 1533(b)(5); and
4. At the earliest possible time, issue said regulation designating the critical habitat described in this petition and concurrently implement that designation, 16 U.S.C. § 1533(b)(6).