From:	Frazer, Gary
To:	Oetker Mike
Cc:	Miranda, Leopoldo; Jeff Newman; Lisa Ellis; Trish Adams
Subject:	Fwd: Eastern Collier HCP -- white paper
Date:	Friday, April 28, 2017 7:11:12 AM
Attachments:	ECPO Legal Summary of Proper Scope of Environmental Analysis for Roadway....pdf

Mike -- Thanks for digging into whether there's an issue with SOL involvement (or lack thereof) with the Collier Co HCP. Here's what I got from one of the applicant's attorney on the issue of how to handle vehicular strikes of panthers, which is reportedly the issue that they're wrestling with. -- GDF

Gary Frazer
Assistant Director -- Ecological Services
U.S. Fish and Wildlife Service
(202) 208-4646

---------- Forwarded message ----------
From: **Albrecht, Virginia** <valbrecht@hunton.com>
Date: Thu, Apr 27, 2017 at 2:10 PM
Subject: Eastern Collier HCP -- white paper
To: "Frazer, Gary" <gary_frazer@fws.gov>

Gary – Here's the white paper we sent to the Service in February. As discussed, we had very productive meetings in Collier County yesterday and Tuesday with Rob Tawes and David Dell (from the regional office) and Ken MacDonald and Connie Casseler (sp?) (from Vero Beach) and have made good progress on completing the HCP and the draft EIS (and related environmental reviews). All agree that in order to move forward we need the Solictor's office to engage on the issue of how to address vehicle strikes of panthers, and we appreciate your help in securing that important involvement. I think there was general sentiment that the decision how to address vehicle strikes could have national implications, so coordination with headquarters would likely be useful at some point.

Let me know if you need anything further. I will be out of the office today and tomorrow so best way to call me is via cell phone – 240-498-6409.

Thanks, Virginia

Virginia S. Albrecht

HUNTON& WILLIAMS

Special Counsel

valbrecht@hunton.com

p 202.955.19433

bio | vCard

Hunton & Williams LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037

hunton.com

The Proper Scope of Environmental Analysis for Roadway Impacts

February 9, 2017

I. Introduction 1
II. The Scope of the Environmental Analysis Must Be Tailored to those Effects Actually Caused by the Proposed Federal Action – the Issuance of the ITP. 5
A. Legal Background 5
1. ESA Section 7 Consultation 6
2. NEPA Analysis 8
B. Determining the Proper Scope of Environmental Analysis Requires Accurately Defining the Federal Action. 9
C. Determining the Direct and Indirect Effects of the Action Requires Assessing Those Effects That Are Proximately Caused By the Action. 10
III. Roadway Impacts Are Not Effects Proximately Caused by the ITP, But Are Appropriately Considered in the Baseline and Cumulative Effects Analyses. 14
A. Vehicle Strikes May Be Appropriately Considered Within the Context of the Environmental Baseline. 14
B. Vehicle Strikes May Be Reasonably Considered Within the Cumulative Effects Analysis. 15
C. Vehicle Strikes are Not Direct or Indirect Effects of the Service's ITP 15
IV. Conclusion 20

I. Introduction

The Eastern Collier Property Owners (ECPO) submit the following response to a request from the U.S. Fish & Wildlife Service (FWS or the Service) to provide ECPO's position on the proper scope of analysis for the environmental reviews of ECPO's incidental take permit (ITP) application, including whether and how to consider third party vehicle collisions with Florida panthers. As explained in detail below, while the impacts of third party vehicle collisions may not be attributed to the ITP or to ECPO, roadway impacts on the panther may properly be considered in the baseline and cumulative effects sections of the environmental reviews.

ECPO is a group of private landowning companies. ECPO members intend to build residential and commercial developments and conduct earth mining activities on various

properties they own in Collier County, Florida. These activities may impact endangered and threatened species in the area, including the Florida panther. Construction and mining activities generally proceed in a slow and methodical manner that does not pose a lethal threat to the panther or most other species. However, the light, sound, and/or vibration from construction or mining activities may disturb or annoy species. It is possible that species could be disturbed to such an extent that normal behavioral patterns, such as feeding, sheltering, and breeding, are disrupted. Under the Endangered Species Act (ESA or Act), such impacts may qualify as "take" in the form of "harassment," and are prohibited with certain exceptions (such as where the take is authorized by an incidental take permit). To obtain authorization for such incidental take, ECPO applied for an ITP from the Service, and prepared the requisite Habitat Conservation Plan (HCP).

The HCP is designed to provide large, interconnected, landscape scale preservation of habitat – over 100,000 acres of private land that would otherwise be subject to residential, commercial, or industrial development – to benefit the panther and other protected species. The HCP is the result of a collaborative effort by the landowner applicants and four leading conservation organizations, including Audubon of Florida, Audubon of the Western Everglades, Defenders of Wildlife, and Florida Wildlife Federation, and is designed to ensure an environmentally sensitive balance between conservation of habitat and reasonable economic uses of private land.

The HCP, in accordance with county conservation programs,[1] focuses on the preservation of approximately 107,000 acres of high-value (privately owned) habitat within Collier County to

[1] The HCP is consistent with the Collier County Rural Land Stewardship Area (RLSA) program. The applicants and other land owners worked with local conservation organizations, Collier County, and state agencies to create the Collier County RLSA program in 1999. The program, approved by Collier County and the State of Florida in 2002, offers an alternative to low-density zoning, creating incentives for property owners to permanently protect environmentally sensitive lands in exchange for "stewardship credits" that allow for compact development at higher densities within areas that have limited natural resource values.

offset the impacts of harassment associated with the development of 45,000 acres of lesser-value (privately owned) land. If issued, the ITP would authorize *take*, in the form of harassment, *incidental to* the covered activities. Critically, the ITP *would not* authorize the activities themselves, nor could it.[2]

Indeed, the Service's Revised HCP Handbook emphasizes:

> A basic tenet underlying [ITP] applications is that the Services are not authorizing the applicant's activities that are causing the take. Instead, the Services are authorizing the incidental take that results from the applicant's covered activities.

Revised Handbook at 4-14 (Dec. 21, 2016). This point is important because, as the Revised Handbook recognizes, the public is often confused about the scope of FWS's review.[3] Thus, FWS "must clearly and consistently distinguish between [the] proposed action (i.e., issuance of an [ITP] for the purpose of authorizing incidental take for covered activities within the context of an HCP) and the specific activities of the applicant." *Id.*

Some public comments[4] have indicated confusion about the nature of an ITP, including whether FWS is authorizing ECPO's members' development and mining activities. That confusion has, in turn, led to suggestions by some commenters that the ITP will cause or control changes in nearby traffic patterns and the potential for an increase in vehicle strikes of the

[2] *See* Draft Environmental Impact Statement; Eastern Collier Multi-Species Habitat Conservation Plan; Collier County, Florida, 81 Fed. Reg. 16,200, 16,201/2 (Mar. 25, 2016) ("The prospective applicants intend to seek an [ITP] that would authorize take resulting from the residential and commercial development and earth mining activities . . ."); *see also* Eastern Collier Multi-Species Habitat Conservation Plan, Environmental Impact Statement, Draft Scoping Report at 1 (June 2016) ("Draft Scoping Report"). The requested ITP would authorize take in the form of harassment.

[3] "[S]takeholders often do not understand this concept, at least initially, so we find ourselves spending weeks or months responding to issues and concerns that are associated with an applicant's project . . . which the Services have no control over via our ESA authority." Revised Handbook at 4-14.

[4] FWS issued its Draft Scoping Report in June 2016 identifying relevant issues that will influence the scope of the environmental analysis. Vehicle strikes were raised in public scoping comments. For example, the Conservancy of Southwest Florida commented that FWS was ignoring the full impact of the ITP by not including take coverage for panthers killed by vehicle strikes. Draft Scoping Report at 19.

endangered Florida panther, and that FWS should require ECPO to mitigate for these potential traffic-related impacts.

FWS is not authorizing the development or mining activities to be covered by the ITP. Rather, it is authorizing take (in the form of harassment) incidental to those activities. Indeed, the covered activities will be authorized by various local, county, state and federal permits, and could (as with most development in the region) proceed without the ITP. Moreover, even beyond the limited nature of FWS's proposed ITP, as a general matter private land developers do not control and are not responsible for the actions of the residents who live in their communities or the individuals who frequent their commercial establishments, much less the driving behavior of those or other individuals on internal or external roadways.[5] Vehicle strikes of panthers are generally the result of a confluence of different factors, including speed limit, road design (including whether or not there are wildlife barriers or crossings), driver behavior and skill, and panther behavior. FWS's issuance of the ITP will not authorize or control the activity that directly causes vehicular takes – automobile operations. Moreover, the governing speed limit and the design of roadways, as well as driver behavior, are outside the scope of FWS authority and control. This does not mean that FWS should not consider potential vehicle strikes as part of

[5] Under applicable legal principles, a person may be held liable for *direct* take if he actually undertakes the activity that results in take, or for *indirect* take if he controls the manner in which the taking activity is conducted. *Strahan v. Linnon*, 187 F.3d 623 (1st Cir. 1998) (unpublished op.). The Supreme Court has recognized the limiting principle that the ESA take prohibition is subject to "ordinary requirements of proximate causation." *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687, 700 n.13 (1995). Thus, it is not enough to show that take is "possible" or "likely," *Arizona Cattle Growers v. FWS*, 273 F.3d 1229, 1243-46 (9th Cir. 2001), or to show a "numerical probability of harm." *Am. Bald Eagle v. Bhatti*, 9 F.3d 163, 165-66 (1st Cir. 1993). The Service must show that the regulated activity will actually cause take. *Arizona Cattle Growers*, 273 F.3d at 1246. In the case of panther takes resulting from vehicle strikes, this would mean that a person could be liable if he actually operates the vehicle that strikes a panther or, through legal authority, requires that vehicle be operated in a specific manner that will result in strikes of panthers. Certainly, one who develops a residential community does not, by virtue of that construction, cause vehicular take of panthers or control the manner in which vehicles are operated by residents. Accordingly, the relevant focus of the applicable environmental review is the effect of the ITP and not the effect of ECPO's activities.

its environmental reviews; rather, it reinforces the importance of FWS recognizing that neither its ITP nor the applicant's covered activities are the *cause* of vehicle strikes.

The Service must focus its environmental reviews on those discrete effects caused by *its* proposed action – the authorization of incidental take – and tailor the environmental analysis accordingly. Applying the proper scope of environmental analysis is critical to ensuring an efficient and effective review process, and thereby developing a focused and well-supported ITP. An overly narrow scope would fail to consider all effects of the action. An overbroad scope, however, would attribute events (such as vehicle strikes of panthers) to the Service's issuance of the ITP despite the fact that those events that are not caused by the ITP, exaggerate the effects attributed to the ITP, preclude the ability to meaningfully shape the ITP to offset attributed effects, and leave the analysis without a solid limiting principle to guide the Service's action. This means that vehicle strikes of panthers may not be treated as "direct" or "indirect" effects of the ITP. However, roadway impacts including vehicle strikes may properly be considered in the baseline and cumulative effects sections of the environmental reviews.

II. The Scope of the Environmental Analysis Must Be Tailored to those Effects Actually Caused by the Proposed Federal Action – the Issuance of the ITP.

A. Legal Background

Section 9 of the ESA prohibits the "take" of endangered species within the United States or its territorial sea, except in accordance with other parts of the statute. 16 U.S.C. § 1538(a)(1)(B). The take prohibition may also be extended to threatened species by rule. The ESA defines "take" as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(19). "Harass" is defined as an activity "which creates the likelihood of injury to wildlife by annoying it to such an extent as to

significantly disrupt normal behavioral patterns," such as "breeding, feeding, or sheltering." 50 C.F.R. § 17.3.

FWS may authorize take in certain circumstances. For example, pursuant to ESA Section 10, take that is incidental to a non-federal activity may be authorized through an ITP, provided certain conditions are met. 16 U.S.C. § 1539(a)(1)(B). FWS defines "incidental take" for ESA purposes as "takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant." 50 C.F.R. § 402.02.

Applicants for ITPs must include with their application an HCP describing, *inter alia*, the likely impacts of the take and the measures the applicant will implement to minimize and mitigate such impacts. 16 U.S.C. § 1539(a)(2)(A). FWS "shall issue" an ITP if it finds that "[t]he taking will be incidental" to an otherwise lawful activity, "[t]he applicant will, to the maximum extent practicable, minimize and mitigate the impacts of *such takings*," "[t]he taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild," and provided that other requirements, such as ensuring adequate funding for the HCP, are met. 50 C.F.R. § 17.22 (emphasis added).

1. ESA Section 7 Consultation

Pursuant to ESA Section 7, the issuance of an ITP by the Service is a discretionary federal action that triggers the obligation to consult with FWS's Ecological Services Office. The goal of Section 7 consultation is to ensure that the proposed action is not likely to jeopardize the continued existence of endangered (or threatened) species or adversely modify designated critical habitat. *See* 16 U.S.C. § 1536(a)(2). Under applicable FWS regulations, as part of the consultation, the Service must "[e]valuate the *effects of the action* and *cumulative effects* on the listed species or critical habitat." 50 C.F.R. § 402.14(g)(3) (emphases added).

"Effects of the action" is a defined term within the Services' regulations. The term "refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action." 50 C.F.R. § 402.02. To distinguish the effects "*of the action*" – here the effects of issuing the ITP – from the effects of other past and present activities within the action area, the effects of the action are "added to the environmental baseline." *Id.* (emphasis added). "The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process." *Id.* Importantly, for purposes of whether vehicle strikes of panthers should be addressed as "indirect effects" of the ITP (in addition to addressing vehicle strikes in the baseline and cumulative effects discussions), the regulations define "[i]ndirect effects" as "those [effects] that are *caused* by the proposed action and are later in time, but still are reasonably certain to occur." *Id*. (emphasis added).

The Section 7 consultation analysis also considers the effects of future activities, other than the action under consultation, as part of a "cumulative effects" analysis. "Cumulative effects" are defined by FWS regulations as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." *Id*. In other words, the incremental effect of the proposed action is distinguished from and considered in light of not only baseline conditions, but also non-federal activities that are reasonably certain to occur in the future.

In sum, effects that are caused by *the action* – here, effects caused by issuing the ITP – are considered in the section 7 analysis as either direct or indirect effects. Effects that are caused by *other activities* within the action area – including effects caused by an applicant's underlying project, Revised Handbook at 4-14 – are considered as part of the baseline or cumulative effects analysis. Ultimately, the purpose of the section 7 consultation analysis is to determine whether the federal action itself – here, issuing the ITP – is itself likely to *cause* jeopardy or adverse modification based on the action's direct and indirect effects when considered in light of baseline conditions and projected future non-federal activities.

Following consultation, the Service will issue an opinion determining whether issuing an ITP will cause jeopardy or adverse modification. 16 U.S.C. § 1536(b)(3)(A). "Our Section 7 analysis determines if the impacts of take [resulting from the proposed action], when combined with other past, present, and future impacts, are likely to jeopardize the continued existence of the covered species in the wild ...." Revised Handbook at 12-6. If FWS concludes that the agency action would place the listed species in jeopardy, "the [agency] shall suggest those reasonable and prudent alternatives which [it] believes would not violate [Section 7] and can be taken by the Federal agency . . . in implementing the agency action." 16 U.S.C. § 1536(b)(3)(A); *see also* 50 C.F.R. § 402.14(h)(3).

2. NEPA Analysis

Issuing an ITP is also a federal action that is subject to environmental review under the National Environmental Policy Act (NEPA). 42 U.S.C. § 4321, *et seq.* Pursuant to NEPA, FWS has determined it will prepare an Environmental Impact Statement (EIS) to analyze the environmental impacts of the federal action; here, issuing the ITP. The EIS will discuss the environmental impacts of the proposed action, alternatives, and any adverse environmental effects.

In accordance with the Council on Environmental Quality's regulations, the discussion of environmental effects shall include direct, indirect, and cumulative effects. 40 C.F.R. § 1502.16; *see also* definition of "effects" at 40 C.F.R. § 1508.8. Direct effects, are those impacts that "are *caused* by the action and occur at the same time and place." 40 C.F.R. § 1508.8(a) (emphasis added). Similar to the ESA definition, indirect effects "are *caused* by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. § 1508.8(b) (emphasis added). "Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 C.F.R. § 1508.7.

B. Determining the Proper Scope of Environmental Analysis Requires Accurately Defining the Federal Action.

Applying the proper scope of environmental analysis is critical to developing an appropriately tailored and supportable EIS (under NEPA) and Biological Opinion (under ESA Section 7) and, ultimately, an appropriate and supportable ITP. The Revised Handbook emphasizes:

> [F]or HCP projects involving an . . . [EIS], it is important to be precise about the underlying Federal action. For some projects, there has been considerable confusion over what the actual "scope" of a Federal action was in response to an [ITP] application. Misunderstanding the scope often leads to an overstatement of impacts, . . . and encumbering applicants and the Services with unwarranted, costly, and time-consuming EIS's.

Revised Handbook at 4-14. To avoid misstating impacts attributable to the ITP or otherwise confusing the analyses, and to ensure proper and supportable environmental reviews, the Service must accurately define the federal action, then determine the effects proximately caused by that action (both direct and indirect), and consider the incremental impact of those effects in relation to baseline conditions and overall cumulative effects.

The action proposed by FWS here is the issuance of an ITP authorizing take incidental to covered activities, but not the covered activities themselves. The take that is likely to be caused by issuance of the ITP is harassment resulting from light, noise, or vibration associated with construction or mining activities that annoys panthers or other species to such an extent that it disrupts normal behavioral patterns. The ITP only authorizes and controls these limited forms of *take*. The ITP does not authorize or control the overall covered activities (e.g., construction activities generally), nor could it.

C. Determining the Direct and Indirect Effects of the Action Requires Assessing Those Effects That Are Proximately Caused By the Action.

The Supreme Court has held that "proximate cause" is the governing standard for determining direct and indirect "effects" of the action under NEPA, and its holding applies equally by extension to reviews under the ESA. The law generally distinguishes between two types of causation: proximate (or legal) and cause-in-fact (or "but for"). Proximate cause is "[a] cause that is legally sufficient to result in liability[;] [a] cause that directly produces an event and without which the event would not have occurred." Black's Law Dictionary 213.[6] "But for" causation casts a much wider net, capturing a broader series of events that can be traced to a particular action without regard to whether the actor is in a position to control those events, and considers whether an injury would have occurred "but for" the action at issue.

[6] Black's Law Dictionary includes a frequently cited quote from *Prosser and Keeton on Torts*: "'Proximate cause' – in itself an unfortunate term – is merely the limitation which the courts have placed upon the actor's responsibility for the consequences of the actor's conduct. In a philosophical sense, the consequences of an act go forward to eternity, and the causes of an event go back to the dawn of human events, and beyond. But any attempt to impose responsibility upon such a basis would result in infinite liability for all wrongful acts, and would 'set society on edge and fill the courts with endless litigation.' As a practical matter, legal responsibility must be limited to those causes which are so closely connected with the result and of such significance that the law is justified in imposing liability. Some boundary must be set to liability for the consequences of any act, upon the basis of some social idea of justice or policy. BLACK'S LAW DICTIONARY at 264 (5th ed. 1984) (citing W. Page Keeton *et al*., *Prosser and Keeton on Torts* § 41) (internal citations omitted).

According to the Supreme Court, "a 'but for' causal relationship is insufficient to make an agency responsible for a particular effect under NEPA and the relevant regulations. . . . NEPA requires a reasonably close causal relationship between the environmental effect and the alleged cause [analogous] to the familiar doctrine of proximate cause from tort law." *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004) (citations omitted). In *Public Citizen*, the U.S. Department of Transportation (DOT) was not required to consider air emissions from Mexican trucks when issuing safety regulations that determine entry because, despite the fact that the regulations determined when the trucks could enter the U.S. (*i.e.*, the trucks could not enter the U.S. but for issuance of the regulations). The Supreme Court held that the regulations were not the proximate cause of the alleged air emissions, and DOT lacked the authority to regulate those emissions. In other words, "where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect." *Id.* at 770. Thus, the air emissions could not be deemed either a direct or indirect effect under NEPA. *Id.* at 763-69.[7]

The lower courts have likewise rejected "but for" causation as a basis for attributing effects to an agency action, including in the form of alleged "indirect" effects. For example, in the seminal NEPA case *Winnebago Tribe of Nebraska v. Ray*, plaintiffs challenged the NEPA review of a federal permit authorizing the construction of a transmission line across the Missouri River. 621 F.2d 269 (8th Cir. 1980). The river crossing comprised approximately 1.25 miles of the 67-mile transmission line. Plaintiffs alleged that the NEPA analysis should have considered the impacts of the entire line (including potential impacts on the bald eagle), not just the crossing. 621 F.2d at 272. The plaintiffs asserted that the remainder of the line would not be

[7] As noted above, the definition of "indirect effects" under the ESA also requires causation.

built "but for" the river crossing, and thus the effects of those portions of the line should have been considered as "indirect" effects of the permit. *Id*. at 272-73. The Eighth Circuit rejected the application of "but for" causation to determine indirect effects, stating that while the federal agency had discretion to consider environmental impacts, "that discretion must be exercised within the scope of the agency's authority [which] extend[ed] only to areas in and affecting navigable waters." *Id*. at 272.

These same principles have been applied in the ESA context, as well. In *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644 (2007), environmental groups challenged the EPA's decision to transfer permitting power under the CWA[8] to state administrative authorities in Arizona. During Section 7 consultation on the proposed transfer of administrative authority, FWS raised concerns that the federal action "could result in the issuance of more discharge permits, which would lead to more development," without the ability to consult on each permit. 551 U.S. at 653. However, "EPA believed that the link between the transfer of permitting authority and the potential harm that could result from increased development was too attenuated," and thus not an effect attributable to its transfer action. *Id.* at 653-54. The Supreme Court, citing *Public Citizen*, acknowledged that EPA has no discretion over the NPDES permitting transfer authority, and thus is not the legal cause of effects of the NPDES transfer. *Id.* at 667-68 (2007) ("[T]he basic principle announced in *Public Citizen* – that an agency cannot be considered the legal 'cause' of an action that it has no statutory discretion *not* to take – supports the reasonableness of the FWS's interpretation of [Section 7] as reaching only discretionary agency actions.").[9]

[8] Specifically, the authority to issue permits under the National Pollutant Discharge Elimination System (NPDES).

[9] Likewise, both the majority and Justice O'Connor in her concurring opinion explained in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon* that application of the Services' regulatory definition of "harm"

The Eleventh Circuit, in which the ITP and HCP will apply, has recognized that *Public Citizen* applies equally to ESA section 7 consultation. The court noted that the "statutory and regulatory framework for determining when an agency action requires section 7(a)(2) consultation is materially indistinguishable from the framework of [NEPA] considered by the Supreme Court in *Department of Transportation v. Public Citizen*." *Florida Key Deer v. Paulison*, 522 F.3d 1133, 1143 (11th Cir. 2008).

The Fifth Circuit recently emphasized the importance of proximate cause in a decision holding that that the licensure of water diversions could not be deemed an indirect cause of downstream take of whooping cranes. In *Aransas Project v. Shaw*, the court noted that the overbroad concept of indirect causation urged by the plaintiffs could be criticized for implying that "issuing drivers' licenses will 'cause the take' of endangered species run over by cars . . .." 775 F.3d 641, 659 (5th Cir. 2014). The court rejected the plaintiff's broad theory of indirect causation, and explained that "[a]pplying a proximate cause limit to the ESA must therefore mean that liability may be based neither on the 'butterfly effect' nor on remote actors in a vast and complex ecosystem." *Id*. at 657-58.

The Revised Handbook also adopts a causation standard that reflects proximate – not "but for" – causation. "[T]he specific activity that [an ITP] authorizes, the incidental take of endangered species, may be merely one component of a large project involving non-Federal activities that do not require Federal review or authorization. Determining whether our NEPA analysis should consider the impacts of that larger activity requires analysis of the extent of our

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at 50 C.F.R. § 17.3 "is limited by ordinary principles of proximate causation." 515 U.S. 687, 709 (1995) (O'Connor, J., concurring); *see also id.* at 700 n.13 (majority concluding that agency regulation is subject to "ordinary requirements of proximate causation and foreseeability"). Justice O'Connor explained, that, for example, the destruction of seedlings that would otherwise grow to provide food and shelter for endangered birds is not a proximate cause of a subsequent death or injury to those birds. *Id*. at 714. There, as here, "the regulation clearly rejects speculative or conjectural effects, and thus itself invokes principles of proximate causation." *Id*. at 712 (emphasis omitted).

'*control and responsibility*' over the applicant's overall project." Revised Handbook at 13-4 (citing 40 C.F.R. § 1508.18) (emphasis added). Critically, the Revised Handbook specifies that "*[s]imple 'but for' causation is not enough*" and that "[t]here must be a reasonably close *causal relationship* between issuance of the ITP and the effects under consideration to require analysis under NEPA." *Id*. (emphases added).

III. Roadway Impacts Are Not Effects Proximately Caused by the ITP, But Are Appropriately Considered in the Baseline and Cumulative Effects Analyses.

A. Vehicle Strikes May Be Appropriately Considered Within the Context of the Environmental Baseline.

The authorization of incidental take via the issuance of an ITP is the action subject to NEPA and ESA's Section 7 requirements. Under Section 7, the Service makes a jeopardy determination by evaluating the *effects* of the proposed action in the context of the species' current status (baseline conditions), taking into account any cumulative effects. 50 C.F.R. § 402.14(g)(3) (During formal consultation the Service is responsible for evaluating "the effects of the action and cumulative effects on the listed species"). The environmental baseline includes the past and present impacts of all activities (Federal, State, or private) in the action area, the anticipated impacts of proposed federal projects in the action area that have completed Section 7 consultation, and concurrent state or private actions. 50 C.F.R. § 402.02.

Here, the environmental baseline with respect to the Florida panther would include conditions relevant to its current status, including location and amount of habitat, recruitment, disease, and other factors. The baseline would also include historical and ongoing vehicle strikes in the area, since they contribute to the species' current status.

B. Vehicle Strikes May Be Reasonably Considered Within the Cumulative Effects Analysis.

In the context of Section 7 consultation, cumulative impacts include the effects of future private or state actions within the action area "that are reasonably certain to occur." *See* 50 C.F.R. § 402.2. In other words, the incremental effect of the ITP is considered in light of non-federal actions that are reasonably certain to occur in the future. Similarly, in discussing the cumulative effects of the action under NEPA, it is appropriate for the Service to include vehicle strikes within the discussion of past, present, and future impacts. Accordingly, the Service's ESA and NEPA reviews should consider traffic impacts, including potential vehicle strikes, but should do so in the context of describing baseline conditions or considering cumulative effects.

C. Vehicle Strikes are Not Direct or Indirect Effects of the Service's ITP

The direct effects of the ITP are the potential irritation of panthers through construction light, noise, or vibration. The indirect effects of panther annoyance – those effects caused by the ITP but which occur later in time and are still reasonably *certain* to occur – may include changes to the panther's hunting behavior or dispersal patterns. Den relocation or territorial disputes with other panthers are remote possibilities, but it is doubtful they meet the reasonably-certain-to-occur standard. Potential vehicle strikes of panthers on are not direct or indirect effects of the proposed ITP.

The proposed ITP is not the proximate cause of vehicle strikes because there is not a reasonably direct chain of causation between the ITP and a vehicle collision with a panther, and the factors that lead to vehicle strikes are beyond the control of FWS. "[W]here an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect." *Public Citizen*, 541 U.S. at 770. The ITP is not even a "but for" cause of vehicle strikes, because vehicle

operations (and even the covered activities) would occur without the ITP, and it cannot reasonably be said that one or more vehicle strikes would not occur but for the ITP. In any event, the "but for" standard does not apply and has been rejected by the courts because it would make parties liable for effects they do not control. Only direct and indirect effects *proximately* caused by an agency action may be attributed to that action under NEPA and the ESA. As the Revised Handbook emphasizes:

> Properly defining the action subject to our control and responsibility requires a qualitative assessment of the applicant's project and the role of the Service with respect to that project. The Service's ability to exercise discretion over an ESA permit applicant's non-Federal activities is limited to ensuring the non-Federal entity's permit application meets the statutory and regulatory criteria in section 10(a)(2)(B) of the ESA and 50 CFR 17.22 (b)(l) and 17.32(b)(l).

Revised Handbook at 13-4.

The cases that address take causation demonstrate that control over the action that directly causes take is a prerequisite to finding that an action caused take. In *Strahan v. Coxe*, the First Circuit held that a Massachusetts agency that regulated and licensed the use of gillnets and lobster pots "in specifically the manner" that caused actual takes of endangered Northern Right whales was liable for take. 127 F.3d 155, 164-66 (1st Cir. 1997). In *Loggerhead Turtle v. Cnty. Council of Volusia Cnty., Fla.*, the Eleventh Circuit cited *Coxe* and adopted the First Circuit's recognition of the critical importance of control in assessing take causation: "[t]his case . . . involves a regulatory entity that exerts *control* over the use of something that allegedly takes protected wildlife .... Volusia County ordained beachfront lighting, allowing landowners to use lights all day and all night . . . or use lights only during daylight hours and turn them off at sunset . . .." 148 F.3d 1231, 1251 (11th Cir. 1998) (emphasis added). Similarly, in *Defenders of Wildlife v. Adm'r, Envtl. Prot. Agency*, the Eighth Circuit held that, because EPA controlled through its registration program whether farmers could continue to use a poison (strychnine) that

was killing endangered black-footed ferrets, EPA violated the take prohibition by deciding to register the poison. 882 F.2d 1294, 1300-01 (8th Cir. 1989); *see Loggerhead Turtle*, 148 F.3d at 1251 (noting that "*Defenders of Wildlife* involve[d] a regulatory entity that exerts control over the use of something that allegedly takes protected wildlife").

Lastly, in *United States v. Glenn-Colusa Irrigation Dist.*, the U.S. District Court for the Eastern District of California held that an irrigation district was liable for take of threatened salmon where the irrigation district controlled the pumping of water from a river, and the irrigation district pumped the water with such force that salmon were sucked into and battered against a fish screen. 788 F.Supp. 1126 (E.D. Cal. 1992). The irrigation district argued that the state, rather than the irrigation district, caused the take because the state placed the fish screen in the river, but the court rejected this argument, noting that the state installed the screen to protect salmon and the screen only "becomes hazardous because of the force exerted by the District's pumps." *Id*. at 1133.[10]

Here, by contrast, FWS controls none of the factors that contribute to vehicle strikes. FWS does not authorize automobile operation at all, much less "specifically [in] the manner" that causes take, and it is not the proximate cause of panther strikes – automobile operation is. *Strahan*, 127 F.3d at 163-66. Nor does FWS control the use of automobiles or provide the authority pursuant to which a driver "exacts a taking" of panthers. *Loggerhead Turtle*, 148 F.3d at 1251-53. FWS does not issue drivers' licenses or register the automobiles that strike panthers, *Defenders of Wildlife*, 882 F.2d at 1300-01, or physically force cars to collide with panthers. *Glenn-Colusa Irrigation Dist.*, 788 F.Supp at 1133.

[10] The court also rejected the irrigation district's argument that "the California definition of the proximate cause of a taking rather than federal common law [of proximate cause]" should apply, doubting that Congress intended different applications of the ESA "depending on state law definitions of proximate cause" and concluding that the California proximate cause standard would not help the irrigation district in any event. 788 F.Supp. at 1133-34.

Moreover, FWS does not design Florida's roads. Transportation planning, for the most part, is the province of the Collier County Metropolitan Planning Organization (MPO), in collaboration with the Florida Department of Transportation (FDOT). *See* 23 U.S.C. § 134. The MPO uses current zoning, land-use projections, and other computer models to forecast anticipated transit needs and develop a Long-Range Transportation Plan. Roadway expansion projects are prioritized for federal funding based on a variety of factors including environmental impact, economic development, mobility, safety, security, and quality of life. The actual construction of roads is often performed at the local, county, or state level. None of these government activities directly control whether a panther-vehicle collision occurs, but they illustrate how far removed FWS's proposed ITP (and ECPO's activities) are from any basis for attribution of or liability for roadway take. Accordingly, ECPO's HCP specifically notes that the covered activities:

> do[] not include the existing state and county roadway network, and avoidance and minimization of environmental impacts resulting from improvements to the transportation network are the responsibility of [FDOT] and [MPO], together with State and Federal environmental regulatory agencies.

Draft HCP at 84. Finally, FWS does not set speed limits.[11]

The cases described above demonstrate that the causation requirement applies equally to both direct and indirect effects, and thus roadway strikes of panthers may not be deemed indirect effects of the ITP for NEPA or ESA section 7 consultation purposes. As a further example, in *Ctr. for Biological Diversity v. U.S. Dep't of Hous. & Urban Dev.*, plaintiffs challenged federal

[11] The ESA Section 7 Consultation Handbook actually uses the regulation of speed limits as an example of an action of a third party *not involved* in the federal action, and thus, beyond FWS control. ESA Section 7 Consultation Handbook (Consultation Handbook), at 4-44 (Mar. 1998) ("Although a strong effort should always be made to identify reasonable and prudent alternatives, in some cases, no alternatives are available to avoid jeopardy or adverse modification. Examples include cases in which the corrective action relies on: . . . actions of a third party not involved in the proposed action (e.g., only [a third party], which is not a party to the consultation, has the authority to regulate speed limits).").

mortgage insurance, loan guarantees, and loans used for residential and commercial development in Sierra Vista, Arizona, on the basis of noncompliance with the NEPA and ESA section 7 consultation requirements. 541 F.Supp.2d 1091 (D. Ariz. 2008), *aff'd*, 359 F. App'x 781 (9th Cir. 2009). The plaintiffs alleged that the federal financing facilitated development that led to reduced flows in the San Pedro River, thereby harming two endangered species, and that these impacts to listed species constituted "indirect effects" for NEPA and ESA purposes. *Id*. at 1098. The court rejected the argument, noting that "to fall under the definition of indirect effects, the degradation of the San Pedro watershed must . . . be 'caused' by the proposed action." *Id*. at 1101. The court held that the "[p]laintiffs[']argument fails at the outset" because federal financial assistance programs do not "cause harm to the listed species . . .. [t]he financial assistance programs at issue here are too attenuated to affect the listed species." *Id*. Citing the Supreme Court's decision in *Public Citizen*, the court rejected the argument that impacts to endangered species residing in the San Pedro watershed were indirect effects of the federal actions.[12]

Since FWS does have control or responsibility for the primary factors that contribute to vehicle strikes, the agency's action is not the proximate cause of those strikes. Likewise, there is

[12] The Consultation Handbook points to *Nat'l Wildlife Fed'n v. Coleman* as an example of when development impacts may be considered indirect effects of an agency action. Consultation Handbook at 4-29 (citing 529 F.2d 359 (5th Cir. 1976)). There, the Federal Highway Administration financed and controlled 90% of an interstate highway project that ran through endangered sandhill crane habitat, including the placement of highway interchanges. The court held that the agency's decision to place a highway interchange in the crane's habitat would have the indirect effect of causing associated commercial and residential development to occur at that location, and thus such impacts must be considered as indirect effects of the agency's decision. The court's decision was based on the extent to which the agency controlled and determined the location of private development, based on its extensive control over the highway routing and placement of interchanges. 529 F.2d at 374. By contrast, where (as here) local land use plans anticipate or determine the location of private development, the impacts of such development are not deemed to be direct or indirect effects. *See*, *e.g.*, *City of Carmel-By-The-Sea v. U.S. Dep't of Transp*., 123 F.3d 1142, 1163 (9th Cir. 1997).

no indication that vehicle strikes are reasonably certain to occur as a result of the agency action. Therefore, such effects should not be attributed to the ITP, either directly or indirectly.[13]

IV. Conclusion

Attributing to the ITP effects that are not proximately caused by the ITP would render the NEPA and ESA analyses factually, scientifically, and legally unsound. It would leave the analyses without a limiting principle, and impose upon FWS and ECPO an arbitrary burden to address effects beyond their control. It would also require ECPO members to mitigate for the effects of third parties actions outside of their control. Such an approach is not only objectionable to ECPO, but would dissuade other groups from pursuing similar HCPs. FWS should address roadway impacts on listed species as baseline conditions or in cumulative effects analyses, but should not treat these effects as "direct" or "indirect" effects attributable to or controlled by the ITP.

[13] During discussions on this matter, reference was made to the consideration of traffic impacts in the City Gate ITP Environmental Assessment (EA) and Biological Opinion (BO). Those documents discuss traffic impacts, but do so in general connection with the overall underlying project; they do not state that traffic impacts are caused by the ITP. Indeed, even with respect to the overall project, the BO explains that FWS cannot attempt to attribute any specific level of traffic impacts because "[t]raffic and intraspecific aggression are risks to the panther that are cumulative in nature, and, as such, they are difficult to quantify or to tie to any specific project." BO at 63. Thus, the City Gate EA and BO do not provide a basis for treating roadway impacts as effects of the ITP.

From:	Michael Oetker
To:	Cynthia Dohner
Subject:	Fwd: Eastern Collier HCP -- white paper
Date:	Tuesday, May 2, 2017 9:44:28 AM
Attachments:	ATT00001.htm ECPO Legal Summary of Proper Scope of Environmental Analysis for Roadway....pdf ATT00002.htm

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Begin forwarded message:

From: "Frazer, Gary" <gary_frazer@fws.gov>
Date: April 28, 2017 at 9:10:44 AM EDT
To: Oetker Mike <michael_oetker@fws.gov>
Cc: "Miranda, Leopoldo" <Leopoldo_Miranda@fws.gov>, Jeff Newman <jeff_newman@fws.gov>, Lisa Ellis <lisa_ellis@fws.gov>, Trish Adams <Trish_Adams@fws.gov>
Subject: Fwd: Eastern Collier HCP -- white paper

Mike -- Thanks for digging into whether there's an issue with SOL involvement (or lack thereof) with the Collier Co HCP. Here's what I got from one of the applicant's attorney on the issue of how to handle vehicular strikes of panthers, which is reportedly the issue that they're wrestling with. -- GDF

Gary Frazer
Assistant Director -- Ecological Services
U.S. Fish and Wildlife Service
(202) 208-4646

---------- Forwarded message ----------
From: **Albrecht, Virginia** <valbrecht@hunton.com>
Date: Thu, Apr 27, 2017 at 2:10 PM
Subject: Eastern Collier HCP -- white paper
To: "Frazer, Gary" <gary_frazer@fws.gov>

Gary – Here's the white paper we sent to the Service in February. As discussed, we had very productive meetings in Collier County yesterday and Tuesday with Rob Tawes and David Dell (from the regional office) and Ken MacDonald and Connie Casseler (sp?) (from Vero Beach) and have made good progress on completing the HCP and the draft EIS (and related environmental reviews). All agree that in order to move forward we need the Solictor's office to engage on the issue of how to address vehicle strikes of panthers, and we appreciate your help in securing that important involvement. I think there was

general sentiment that the decision how to address vehicle strikes could have national implications, so coordination with headquarters would likely be useful at some point.

Let me know if you need anything further. I will be out of the office today and tomorrow so best way to call me is via cell phone – 240-498-6409.

Thanks, Virginia

Virginia S. Albrecht

Special Counsel

valbrecht@hunton.com

p 202.955.19433

bio | vCard

Hunton & Williams LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037

hunton.com

The Proper Scope of Environmental Analysis for Roadway Impacts

February 9, 2017

I. Introduction 1
II. The Scope of the Environmental Analysis Must Be Tailored to those Effects Actually Caused by the Proposed Federal Action – the Issuance of the ITP. 5
A. Legal Background 5
1. ESA Section 7 Consultation 6
2. NEPA Analysis 8
B. Determining the Proper Scope of Environmental Analysis Requires Accurately Defining the Federal Action. 9
C. Determining the Direct and Indirect Effects of the Action Requires Assessing Those Effects That Are Proximately Caused By the Action. 10
III. Roadway Impacts Are Not Effects Proximately Caused by the ITP, But Are Appropriately Considered in the Baseline and Cumulative Effects Analyses. 14
A. Vehicle Strikes May Be Appropriately Considered Within the Context of the Environmental Baseline. 14
B. Vehicle Strikes May Be Reasonably Considered Within the Cumulative Effects Analysis. 15
C. Vehicle Strikes are Not Direct or Indirect Effects of the Service's ITP 15
IV. Conclusion 20

I. Introduction

The Eastern Collier Property Owners (ECPO) submit the following response to a request from the U.S. Fish & Wildlife Service (FWS or the Service) to provide ECPO's position on the proper scope of analysis for the environmental reviews of ECPO's incidental take permit (ITP) application, including whether and how to consider third party vehicle collisions with Florida panthers. As explained in detail below, while the impacts of third party vehicle collisions may not be attributed to the ITP or to ECPO, roadway impacts on the panther may properly be considered in the baseline and cumulative effects sections of the environmental reviews.

ECPO is a group of private landowning companies. ECPO members intend to build residential and commercial developments and conduct earth mining activities on various

properties they own in Collier County, Florida. These activities may impact endangered and threatened species in the area, including the Florida panther. Construction and mining activities generally proceed in a slow and methodical manner that does not pose a lethal threat to the panther or most other species. However, the light, sound, and/or vibration from construction or mining activities may disturb or annoy species. It is possible that species could be disturbed to such an extent that normal behavioral patterns, such as feeding, sheltering, and breeding, are disrupted. Under the Endangered Species Act (ESA or Act), such impacts may qualify as "take" in the form of "harassment," and are prohibited with certain exceptions (such as where the take is authorized by an incidental take permit). To obtain authorization for such incidental take, ECPO applied for an ITP from the Service, and prepared the requisite Habitat Conservation Plan (HCP).

The HCP is designed to provide large, interconnected, landscape scale preservation of habitat – over 100,000 acres of private land that would otherwise be subject to residential, commercial, or industrial development – to benefit the panther and other protected species. The HCP is the result of a collaborative effort by the landowner applicants and four leading conservation organizations, including Audubon of Florida, Audubon of the Western Everglades, Defenders of Wildlife, and Florida Wildlife Federation, and is designed to ensure an environmentally sensitive balance between conservation of habitat and reasonable economic uses of private land.

The HCP, in accordance with county conservation programs,[1] focuses on the preservation of approximately 107,000 acres of high-value (privately owned) habitat within Collier County to

[1] The HCP is consistent with the Collier County Rural Land Stewardship Area (RLSA) program. The applicants and other land owners worked with local conservation organizations, Collier County, and state agencies to create the Collier County RLSA program in 1999. The program, approved by Collier County and the State of Florida in 2002, offers an alternative to low-density zoning, creating incentives for property owners to permanently protect environmentally sensitive lands in exchange for "stewardship credits" that allow for compact development at higher densities within areas that have limited natural resource values.

offset the impacts of harassment associated with the development of 45,000 acres of lesser-value (privately owned) land. If issued, the ITP would authorize *take*, in the form of harassment, *incidental to* the covered activities. Critically, the ITP *would not* authorize the activities themselves, nor could it.[2]

Indeed, the Service's Revised HCP Handbook emphasizes:

> A basic tenet underlying [ITP] applications is that the Services are not authorizing the applicant's activities that are causing the take. Instead, the Services are authorizing the incidental take that results from the applicant's covered activities.

Revised Handbook at 4-14 (Dec. 21, 2016). This point is important because, as the Revised Handbook recognizes, the public is often confused about the scope of FWS's review.[3] Thus, FWS "must clearly and consistently distinguish between [the] proposed action (i.e., issuance of an [ITP] for the purpose of authorizing incidental take for covered activities within the context of an HCP) and the specific activities of the applicant." *Id.*

Some public comments[4] have indicated confusion about the nature of an ITP, including whether FWS is authorizing ECPO's members' development and mining activities. That confusion has, in turn, led to suggestions by some commenters that the ITP will cause or control changes in nearby traffic patterns and the potential for an increase in vehicle strikes of the

[2] *See* Draft Environmental Impact Statement; Eastern Collier Multi-Species Habitat Conservation Plan; Collier County, Florida, 81 Fed. Reg. 16,200, 16,201/2 (Mar. 25, 2016) ("The prospective applicants intend to seek an [ITP] that would authorize take resulting from the residential and commercial development and earth mining activities . . ."); *see also* Eastern Collier Multi-Species Habitat Conservation Plan, Environmental Impact Statement, Draft Scoping Report at 1 (June 2016) ("Draft Scoping Report"). The requested ITP would authorize take in the form of harassment.

[3] "[S]takeholders often do not understand this concept, at least initially, so we find ourselves spending weeks or months responding to issues and concerns that are associated with an applicant's project . . . which the Services have no control over via our ESA authority." Revised Handbook at 4-14.

[4] FWS issued its Draft Scoping Report in June 2016 identifying relevant issues that will influence the scope of the environmental analysis. Vehicle strikes were raised in public scoping comments. For example, the Conservancy of Southwest Florida commented that FWS was ignoring the full impact of the ITP by not including take coverage for panthers killed by vehicle strikes. Draft Scoping Report at 19.

endangered Florida panther, and that FWS should require ECPO to mitigate for these potential traffic-related impacts.

FWS is not authorizing the development or mining activities to be covered by the ITP. Rather, it is authorizing take (in the form of harassment) incidental to those activities. Indeed, the covered activities will be authorized by various local, county, state and federal permits, and could (as with most development in the region) proceed without the ITP. Moreover, even beyond the limited nature of FWS's proposed ITP, as a general matter private land developers do not control and are not responsible for the actions of the residents who live in their communities or the individuals who frequent their commercial establishments, much less the driving behavior of those or other individuals on internal or external roadways.[5] Vehicle strikes of panthers are generally the result of a confluence of different factors, including speed limit, road design (including whether or not there are wildlife barriers or crossings), driver behavior and skill, and panther behavior. FWS's issuance of the ITP will not authorize or control the activity that directly causes vehicular takes – automobile operations. Moreover, the governing speed limit and the design of roadways, as well as driver behavior, are outside the scope of FWS authority and control. This does not mean that FWS should not consider potential vehicle strikes as part of

[5] Under applicable legal principles, a person may be held liable for *direct* take if he actually undertakes the activity that results in take, or for *indirect* take if he controls the manner in which the taking activity is conducted. *Strahan v. Linnon*, 187 F.3d 623 (1st Cir. 1998) (unpublished op.). The Supreme Court has recognized the limiting principle that the ESA take prohibition is subject to "ordinary requirements of proximate causation." *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687, 700 n.13 (1995). Thus, it is not enough to show that take is "possible" or "likely," *Arizona Cattle Growers v. FWS*, 273 F.3d 1229, 1243-46 (9th Cir. 2001), or to show a "numerical probability of harm." *Am. Bald Eagle v. Bhatti*, 9 F.3d 163, 165-66 (1st Cir. 1993). The Service must show that the regulated activity will actually cause take. *Arizona Cattle Growers*, 273 F.3d at 1246. In the case of panther takes resulting from vehicle strikes, this would mean that a person could be liable if he actually operates the vehicle that strikes a panther or, through legal authority, requires that vehicle be operated in a specific manner that will result in strikes of panthers. Certainly, one who develops a residential community does not, by virtue of that construction, cause vehicular take of panthers or control the manner in which vehicles are operated by residents. Accordingly, the relevant focus of the applicable environmental review is the effect of the ITP and not the effect of ECPO's activities.

its environmental reviews; rather, it reinforces the importance of FWS recognizing that neither its ITP nor the applicant's covered activities are the *cause* of vehicle strikes.

The Service must focus its environmental reviews on those discrete effects caused by *its* proposed action – the authorization of incidental take – and tailor the environmental analysis accordingly. Applying the proper scope of environmental analysis is critical to ensuring an efficient and effective review process, and thereby developing a focused and well-supported ITP. An overly narrow scope would fail to consider all effects of the action. An overbroad scope, however, would attribute events (such as vehicle strikes of panthers) to the Service's issuance of the ITP despite the fact that those events that are not caused by the ITP, exaggerate the effects attributed to the ITP, preclude the ability to meaningfully shape the ITP to offset attributed effects, and leave the analysis without a solid limiting principle to guide the Service's action. This means that vehicle strikes of panthers may not be treated as "direct" or "indirect" effects of the ITP. However, roadway impacts including vehicle strikes may properly be considered in the baseline and cumulative effects sections of the environmental reviews.

II. The Scope of the Environmental Analysis Must Be Tailored to those Effects Actually Caused by the Proposed Federal Action – the Issuance of the ITP.

A. Legal Background

Section 9 of the ESA prohibits the "take" of endangered species within the United States or its territorial sea, except in accordance with other parts of the statute. 16 U.S.C. § 1538(a)(1)(B). The take prohibition may also be extended to threatened species by rule. The ESA defines "take" as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(19). "Harass" is defined as an activity "which creates the likelihood of injury to wildlife by annoying it to such an extent as to

significantly disrupt normal behavioral patterns," such as "breeding, feeding, or sheltering." 50 C.F.R. § 17.3.

FWS may authorize take in certain circumstances. For example, pursuant to ESA Section 10, take that is incidental to a non-federal activity may be authorized through an ITP, provided certain conditions are met. 16 U.S.C. § 1539(a)(1)(B). FWS defines "incidental take" for ESA purposes as "takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant." 50 C.F.R. § 402.02.

Applicants for ITPs must include with their application an HCP describing, *inter alia*, the likely impacts of the take and the measures the applicant will implement to minimize and mitigate such impacts. 16 U.S.C. § 1539(a)(2)(A). FWS "shall issue" an ITP if it finds that "[t]he taking will be incidental" to an otherwise lawful activity, "[t]he applicant will, to the maximum extent practicable, minimize and mitigate the impacts of *such takings*," "[t]he taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild," and provided that other requirements, such as ensuring adequate funding for the HCP, are met. 50 C.F.R. § 17.22 (emphasis added).

1. ESA Section 7 Consultation

Pursuant to ESA Section 7, the issuance of an ITP by the Service is a discretionary federal action that triggers the obligation to consult with FWS's Ecological Services Office. The goal of Section 7 consultation is to ensure that the proposed action is not likely to jeopardize the continued existence of endangered (or threatened) species or adversely modify designated critical habitat. *See* 16 U.S.C. § 1536(a)(2). Under applicable FWS regulations, as part of the consultation, the Service must "[e]valuate the *effects of the action* and *cumulative effects* on the listed species or critical habitat." 50 C.F.R. § 402.14(g)(3) (emphases added).

"Effects of the action" is a defined term within the Services' regulations. The term "refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action." 50 C.F.R. § 402.02. To distinguish the effects "*of the action*" – here the effects of issuing the ITP – from the effects of other past and present activities within the action area, the effects of the action are "added to the environmental baseline." *Id.* (emphasis added). "The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process." *Id.* Importantly, for purposes of whether vehicle strikes of panthers should be addressed as "indirect effects" of the ITP (in addition to addressing vehicle strikes in the baseline and cumulative effects discussions), the regulations define "[i]ndirect effects" as "those [effects] that are *caused* by the proposed action and are later in time, but still are reasonably certain to occur." *Id*. (emphasis added).

The Section 7 consultation analysis also considers the effects of future activities, other than the action under consultation, as part of a "cumulative effects" analysis. "Cumulative effects" are defined by FWS regulations as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." *Id*. In other words, the incremental effect of the proposed action is distinguished from and considered in light of not only baseline conditions, but also non-federal activities that are reasonably certain to occur in the future.

In sum, effects that are caused by *the action* – here, effects caused by issuing the ITP – are considered in the section 7 analysis as either direct or indirect effects. Effects that are caused by *other activities* within the action area – including effects caused by an applicant's underlying project, Revised Handbook at 4-14 – are considered as part of the baseline or cumulative effects analysis. Ultimately, the purpose of the section 7 consultation analysis is to determine whether the federal action itself – here, issuing the ITP – is itself likely to *cause* jeopardy or adverse modification based on the action's direct and indirect effects when considered in light of baseline conditions and projected future non-federal activities.

Following consultation, the Service will issue an opinion determining whether issuing an ITP will cause jeopardy or adverse modification. 16 U.S.C. § 1536(b)(3)(A). "Our Section 7 analysis determines if the impacts of take [resulting from the proposed action], when combined with other past, present, and future impacts, are likely to jeopardize the continued existence of the covered species in the wild ...." Revised Handbook at 12-6. If FWS concludes that the agency action would place the listed species in jeopardy, "the [agency] shall suggest those reasonable and prudent alternatives which [it] believes would not violate [Section 7] and can be taken by the Federal agency . . . in implementing the agency action." 16 U.S.C. § 1536(b)(3)(A); *see also* 50 C.F.R. § 402.14(h)(3).

2. NEPA Analysis

Issuing an ITP is also a federal action that is subject to environmental review under the National Environmental Policy Act (NEPA). 42 U.S.C. § 4321, *et seq.* Pursuant to NEPA, FWS has determined it will prepare an Environmental Impact Statement (EIS) to analyze the environmental impacts of the federal action; here, issuing the ITP. The EIS will discuss the environmental impacts of the proposed action, alternatives, and any adverse environmental effects.

In accordance with the Council on Environmental Quality's regulations, the discussion of environmental effects shall include direct, indirect, and cumulative effects. 40 C.F.R. § 1502.16; *see also* definition of "effects" at 40 C.F.R. § 1508.8. Direct effects, are those impacts that "are *caused* by the action and occur at the same time and place." 40 C.F.R. § 1508.8(a) (emphasis added). Similar to the ESA definition, indirect effects "are *caused* by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. § 1508.8(b) (emphasis added). "Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 C.F.R. § 1508.7.

B. Determining the Proper Scope of Environmental Analysis Requires Accurately Defining the Federal Action.

Applying the proper scope of environmental analysis is critical to developing an appropriately tailored and supportable EIS (under NEPA) and Biological Opinion (under ESA Section 7) and, ultimately, an appropriate and supportable ITP. The Revised Handbook emphasizes:

> [F]or HCP projects involving an . . . [EIS], it is important to be precise about the underlying Federal action. For some projects, there has been considerable confusion over what the actual "scope" of a Federal action was in response to an [ITP] application. Misunderstanding the scope often leads to an overstatement of impacts, . . . and encumbering applicants and the Services with unwarranted, costly, and time-consuming EIS's.

Revised Handbook at 4-14. To avoid misstating impacts attributable to the ITP or otherwise confusing the analyses, and to ensure proper and supportable environmental reviews, the Service must accurately define the federal action, then determine the effects proximately caused by that action (both direct and indirect), and consider the incremental impact of those effects in relation to baseline conditions and overall cumulative effects.

The action proposed by FWS here is the issuance of an ITP authorizing take incidental to covered activities, but not the covered activities themselves. The take that is likely to be caused by issuance of the ITP is harassment resulting from light, noise, or vibration associated with construction or mining activities that annoys panthers or other species to such an extent that it disrupts normal behavioral patterns. The ITP only authorizes and controls these limited forms of *take*. The ITP does not authorize or control the overall covered activities (e.g., construction activities generally), nor could it.

C. Determining the Direct and Indirect Effects of the Action Requires Assessing Those Effects That Are Proximately Caused By the Action.

The Supreme Court has held that "proximate cause" is the governing standard for determining direct and indirect "effects" of the action under NEPA, and its holding applies equally by extension to reviews under the ESA. The law generally distinguishes between two types of causation: proximate (or legal) and cause-in-fact (or "but for"). Proximate cause is "[a] cause that is legally sufficient to result in liability[;] [a] cause that directly produces an event and without which the event would not have occurred." Black's Law Dictionary 213.[6] "But for" causation casts a much wider net, capturing a broader series of events that can be traced to a particular action without regard to whether the actor is in a position to control those events, and considers whether an injury would have occurred "but for" the action at issue.

[6] Black's Law Dictionary includes a frequently cited quote from *Prosser and Keeton on Torts*: "'Proximate cause' – in itself an unfortunate term – is merely the limitation which the courts have placed upon the actor's responsibility for the consequences of the actor's conduct. In a philosophical sense, the consequences of an act go forward to eternity, and the causes of an event go back to the dawn of human events, and beyond. But any attempt to impose responsibility upon such a basis would result in infinite liability for all wrongful acts, and would 'set society on edge and fill the courts with endless litigation.' As a practical matter, legal responsibility must be limited to those causes which are so closely connected with the result and of such significance that the law is justified in imposing liability. Some boundary must be set to liability for the consequences of any act, upon the basis of some social idea of justice or policy. BLACK'S LAW DICTIONARY at 264 (5th ed. 1984) (citing W. Page Keeton *et al*., *Prosser and Keeton on Torts* § 41) (internal citations omitted).

According to the Supreme Court, "a 'but for' causal relationship is insufficient to make an agency responsible for a particular effect under NEPA and the relevant regulations. . . . NEPA requires a reasonably close causal relationship between the environmental effect and the alleged cause [analogous] to the familiar doctrine of proximate cause from tort law." *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004) (citations omitted). In *Public Citizen*, the U.S. Department of Transportation (DOT) was not required to consider air emissions from Mexican trucks when issuing safety regulations that determine entry because, despite the fact that the regulations determined when the trucks could enter the U.S. (*i.e.*, the trucks could not enter the U.S. but for issuance of the regulations). The Supreme Court held that the regulations were not the proximate cause of the alleged air emissions, and DOT lacked the authority to regulate those emissions. In other words, "where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect." *Id.* at 770. Thus, the air emissions could not be deemed either a direct or indirect effect under NEPA. *Id.* at 763-69.[7]

The lower courts have likewise rejected "but for" causation as a basis for attributing effects to an agency action, including in the form of alleged "indirect" effects. For example, in the seminal NEPA case *Winnebago Tribe of Nebraska v. Ray*, plaintiffs challenged the NEPA review of a federal permit authorizing the construction of a transmission line across the Missouri River. 621 F.2d 269 (8th Cir. 1980). The river crossing comprised approximately 1.25 miles of the 67-mile transmission line. Plaintiffs alleged that the NEPA analysis should have considered the impacts of the entire line (including potential impacts on the bald eagle), not just the crossing. 621 F.2d at 272. The plaintiffs asserted that the remainder of the line would not be

[7] As noted above, the definition of "indirect effects" under the ESA also requires causation.

built "but for" the river crossing, and thus the effects of those portions of the line should have been considered as "indirect" effects of the permit. *Id*. at 272-73. The Eighth Circuit rejected the application of "but for" causation to determine indirect effects, stating that while the federal agency had discretion to consider environmental impacts, "that discretion must be exercised within the scope of the agency's authority [which] extend[ed] only to areas in and affecting navigable waters." *Id*. at 272.

These same principles have been applied in the ESA context, as well. In *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644 (2007), environmental groups challenged the EPA's decision to transfer permitting power under the CWA[8] to state administrative authorities in Arizona. During Section 7 consultation on the proposed transfer of administrative authority, FWS raised concerns that the federal action "could result in the issuance of more discharge permits, which would lead to more development," without the ability to consult on each permit. 551 U.S. at 653. However, "EPA believed that the link between the transfer of permitting authority and the potential harm that could result from increased development was too attenuated," and thus not an effect attributable to its transfer action. *Id.* at 653-54. The Supreme Court, citing *Public Citizen*, acknowledged that EPA has no discretion over the NPDES permitting transfer authority, and thus is not the legal cause of effects of the NPDES transfer. *Id.* at 667-68 (2007) ("[T]he basic principle announced in *Public Citizen* – that an agency cannot be considered the legal 'cause' of an action that it has no statutory discretion *not* to take – supports the reasonableness of the FWS's interpretation of [Section 7] as reaching only discretionary agency actions.").[9]

[8] Specifically, the authority to issue permits under the National Pollutant Discharge Elimination System (NPDES).

[9] Likewise, both the majority and Justice O'Connor in her concurring opinion explained in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon* that application of the Services' regulatory definition of "harm"

The Eleventh Circuit, in which the ITP and HCP will apply, has recognized that *Public Citizen* applies equally to ESA section 7 consultation. The court noted that the "statutory and regulatory framework for determining when an agency action requires section 7(a)(2) consultation is materially indistinguishable from the framework of [NEPA] considered by the Supreme Court in *Department of Transportation v. Public Citizen*." *Florida Key Deer v. Paulison*, 522 F.3d 1133, 1143 (11th Cir. 2008).

The Fifth Circuit recently emphasized the importance of proximate cause in a decision holding that that the licensure of water diversions could not be deemed an indirect cause of downstream take of whooping cranes. In *Aransas Project v. Shaw*, the court noted that the overbroad concept of indirect causation urged by the plaintiffs could be criticized for implying that "issuing drivers' licenses will 'cause the take' of endangered species run over by cars . . .." 775 F.3d 641, 659 (5th Cir. 2014). The court rejected the plaintiff's broad theory of indirect causation, and explained that "[a]pplying a proximate cause limit to the ESA must therefore mean that liability may be based neither on the 'butterfly effect' nor on remote actors in a vast and complex ecosystem." *Id*. at 657-58.

The Revised Handbook also adopts a causation standard that reflects proximate – not "but for" – causation. "[T]he specific activity that [an ITP] authorizes, the incidental take of endangered species, may be merely one component of a large project involving non-Federal activities that do not require Federal review or authorization. Determining whether our NEPA analysis should consider the impacts of that larger activity requires analysis of the extent of our

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at 50 C.F.R. § 17.3 "is limited by ordinary principles of proximate causation." 515 U.S. 687, 709 (1995) (O'Connor, J., concurring); *see also id.* at 700 n.13 (majority concluding that agency regulation is subject to "ordinary requirements of proximate causation and foreseeability"). Justice O'Connor explained, that, for example, the destruction of seedlings that would otherwise grow to provide food and shelter for endangered birds is not a proximate cause of a subsequent death or injury to those birds. *Id*. at 714. There, as here, "the regulation clearly rejects speculative or conjectural effects, and thus itself invokes principles of proximate causation." *Id*. at 712 (emphasis omitted).

'*control and responsibility*' over the applicant's overall project." Revised Handbook at 13-4 (citing 40 C.F.R. § 1508.18) (emphasis added). Critically, the Revised Handbook specifies that "*[s]imple 'but for' causation is not enough*" and that "[t]here must be a reasonably close *causal relationship* between issuance of the ITP and the effects under consideration to require analysis under NEPA." *Id*. (emphases added).

III. Roadway Impacts Are Not Effects Proximately Caused by the ITP, But Are Appropriately Considered in the Baseline and Cumulative Effects Analyses.

A. Vehicle Strikes May Be Appropriately Considered Within the Context of the Environmental Baseline.

The authorization of incidental take via the issuance of an ITP is the action subject to NEPA and ESA's Section 7 requirements. Under Section 7, the Service makes a jeopardy determination by evaluating the *effects* of the proposed action in the context of the species' current status (baseline conditions), taking into account any cumulative effects. 50 C.F.R. § 402.14(g)(3) (During formal consultation the Service is responsible for evaluating "the effects of the action and cumulative effects on the listed species"). The environmental baseline includes the past and present impacts of all activities (Federal, State, or private) in the action area, the anticipated impacts of proposed federal projects in the action area that have completed Section 7 consultation, and concurrent state or private actions. 50 C.F.R. § 402.02.

Here, the environmental baseline with respect to the Florida panther would include conditions relevant to its current status, including location and amount of habitat, recruitment, disease, and other factors. The baseline would also include historical and ongoing vehicle strikes in the area, since they contribute to the species' current status.

B. Vehicle Strikes May Be Reasonably Considered Within the Cumulative Effects Analysis.

In the context of Section 7 consultation, cumulative impacts include the effects of future private or state actions within the action area "that are reasonably certain to occur." *See* 50 C.F.R. § 402.2. In other words, the incremental effect of the ITP is considered in light of non-federal actions that are reasonably certain to occur in the future. Similarly, in discussing the cumulative effects of the action under NEPA, it is appropriate for the Service to include vehicle strikes within the discussion of past, present, and future impacts. Accordingly, the Service's ESA and NEPA reviews should consider traffic impacts, including potential vehicle strikes, but should do so in the context of describing baseline conditions or considering cumulative effects.

C. Vehicle Strikes are Not Direct or Indirect Effects of the Service's ITP

The direct effects of the ITP are the potential irritation of panthers through construction light, noise, or vibration. The indirect effects of panther annoyance – those effects caused by the ITP but which occur later in time and are still reasonably *certain* to occur – may include changes to the panther's hunting behavior or dispersal patterns. Den relocation or territorial disputes with other panthers are remote possibilities, but it is doubtful they meet the reasonably-certain-to-occur standard. Potential vehicle strikes of panthers on are not direct or indirect effects of the proposed ITP.

The proposed ITP is not the proximate cause of vehicle strikes because there is not a reasonably direct chain of causation between the ITP and a vehicle collision with a panther, and the factors that lead to vehicle strikes are beyond the control of FWS. "[W]here an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect." *Public Citizen*, 541 U.S. at 770. The ITP is not even a "but for" cause of vehicle strikes, because vehicle

operations (and even the covered activities) would occur without the ITP, and it cannot reasonably be said that one or more vehicle strikes would not occur but for the ITP. In any event, the "but for" standard does not apply and has been rejected by the courts because it would make parties liable for effects they do not control. Only direct and indirect effects *proximately* caused by an agency action may be attributed to that action under NEPA and the ESA. As the Revised Handbook emphasizes:

> Properly defining the action subject to our control and responsibility requires a qualitative assessment of the applicant's project and the role of the Service with respect to that project. The Service's ability to exercise discretion over an ESA permit applicant's non-Federal activities is limited to ensuring the non-Federal entity's permit application meets the statutory and regulatory criteria in section 10(a)(2)(B) of the ESA and 50 CFR 17.22 (b)(l) and 17.32(b)(l).

Revised Handbook at 13-4.

The cases that address take causation demonstrate that control over the action that directly causes take is a prerequisite to finding that an action caused take. In *Strahan v. Coxe*, the First Circuit held that a Massachusetts agency that regulated and licensed the use of gillnets and lobster pots "in specifically the manner" that caused actual takes of endangered Northern Right whales was liable for take. 127 F.3d 155, 164-66 (1st Cir. 1997). In *Loggerhead Turtle v. Cnty. Council of Volusia Cnty., Fla.*, the Eleventh Circuit cited *Coxe* and adopted the First Circuit's recognition of the critical importance of control in assessing take causation: "[t]his case . . . involves a regulatory entity that exerts *control* over the use of something that allegedly takes protected wildlife .... Volusia County ordained beachfront lighting, allowing landowners to use lights all day and all night . . . or use lights only during daylight hours and turn them off at sunset . . .." 148 F.3d 1231, 1251 (11th Cir. 1998) (emphasis added). Similarly, in *Defenders of Wildlife v. Adm'r, Envtl. Prot. Agency*, the Eighth Circuit held that, because EPA controlled through its registration program whether farmers could continue to use a poison (strychnine) that

was killing endangered black-footed ferrets, EPA violated the take prohibition by deciding to register the poison. 882 F.2d 1294, 1300-01 (8th Cir. 1989); *see Loggerhead Turtle*, 148 F.3d at 1251 (noting that "*Defenders of Wildlife* involve[d] a regulatory entity that exerts control over the use of something that allegedly takes protected wildlife").

Lastly, in *United States v. Glenn-Colusa Irrigation Dist.*, the U.S. District Court for the Eastern District of California held that an irrigation district was liable for take of threatened salmon where the irrigation district controlled the pumping of water from a river, and the irrigation district pumped the water with such force that salmon were sucked into and battered against a fish screen. 788 F.Supp. 1126 (E.D. Cal. 1992). The irrigation district argued that the state, rather than the irrigation district, caused the take because the state placed the fish screen in the river, but the court rejected this argument, noting that the state installed the screen to protect salmon and the screen only "becomes hazardous because of the force exerted by the District's pumps." *Id*. at 1133.[10]

Here, by contrast, FWS controls none of the factors that contribute to vehicle strikes. FWS does not authorize automobile operation at all, much less "specifically [in] the manner" that causes take, and it is not the proximate cause of panther strikes – automobile operation is. *Strahan*, 127 F.3d at 163-66. Nor does FWS control the use of automobiles or provide the authority pursuant to which a driver "exacts a taking" of panthers. *Loggerhead Turtle*, 148 F.3d at 1251-53. FWS does not issue drivers' licenses or register the automobiles that strike panthers, *Defenders of Wildlife*, 882 F.2d at 1300-01, or physically force cars to collide with panthers. *Glenn-Colusa Irrigation Dist.*, 788 F.Supp at 1133.

[10] The court also rejected the irrigation district's argument that "the California definition of the proximate cause of a taking rather than federal common law [of proximate cause]" should apply, doubting that Congress intended different applications of the ESA "depending on state law definitions of proximate cause" and concluding that the California proximate cause standard would not help the irrigation district in any event. 788 F.Supp. at 1133-34.

Moreover, FWS does not design Florida's roads. Transportation planning, for the most part, is the province of the Collier County Metropolitan Planning Organization (MPO), in collaboration with the Florida Department of Transportation (FDOT). *See* 23 U.S.C. § 134. The MPO uses current zoning, land-use projections, and other computer models to forecast anticipated transit needs and develop a Long-Range Transportation Plan. Roadway expansion projects are prioritized for federal funding based on a variety of factors including environmental impact, economic development, mobility, safety, security, and quality of life. The actual construction of roads is often performed at the local, county, or state level. None of these government activities directly control whether a panther-vehicle collision occurs, but they illustrate how far removed FWS's proposed ITP (and ECPO's activities) are from any basis for attribution of or liability for roadway take. Accordingly, ECPO's HCP specifically notes that the covered activities:

> do[] not include the existing state and county roadway network, and avoidance and minimization of environmental impacts resulting from improvements to the transportation network are the responsibility of [FDOT] and [MPO], together with State and Federal environmental regulatory agencies.

Draft HCP at 84. Finally, FWS does not set speed limits.[11]

The cases described above demonstrate that the causation requirement applies equally to both direct and indirect effects, and thus roadway strikes of panthers may not be deemed indirect effects of the ITP for NEPA or ESA section 7 consultation purposes. As a further example, in *Ctr. for Biological Diversity v. U.S. Dep't of Hous. & Urban Dev.*, plaintiffs challenged federal

[11] The ESA Section 7 Consultation Handbook actually uses the regulation of speed limits as an example of an action of a third party *not involved* in the federal action, and thus, beyond FWS control. ESA Section 7 Consultation Handbook (Consultation Handbook), at 4-44 (Mar. 1998) ("Although a strong effort should always be made to identify reasonable and prudent alternatives, in some cases, no alternatives are available to avoid jeopardy or adverse modification. Examples include cases in which the corrective action relies on: . . . actions of a third party not involved in the proposed action (e.g., only [a third party], which is not a party to the consultation, has the authority to regulate speed limits).").

mortgage insurance, loan guarantees, and loans used for residential and commercial development in Sierra Vista, Arizona, on the basis of noncompliance with the NEPA and ESA section 7 consultation requirements. 541 F.Supp.2d 1091 (D. Ariz. 2008), *aff'd*, 359 F. App'x 781 (9th Cir. 2009). The plaintiffs alleged that the federal financing facilitated development that led to reduced flows in the San Pedro River, thereby harming two endangered species, and that these impacts to listed species constituted "indirect effects" for NEPA and ESA purposes. *Id*. at 1098. The court rejected the argument, noting that "to fall under the definition of indirect effects, the degradation of the San Pedro watershed must . . . be 'caused' by the proposed action." *Id*. at 1101. The court held that the "[p]laintiffs[']argument fails at the outset" because federal financial assistance programs do not "cause harm to the listed species . . .. [t]he financial assistance programs at issue here are too attenuated to affect the listed species." *Id*. Citing the Supreme Court's decision in *Public Citizen*, the court rejected the argument that impacts to endangered species residing in the San Pedro watershed were indirect effects of the federal actions.[12]

Since FWS does have control or responsibility for the primary factors that contribute to vehicle strikes, the agency's action is not the proximate cause of those strikes. Likewise, there is

[12] The Consultation Handbook points to *Nat'l Wildlife Fed'n v. Coleman* as an example of when development impacts may be considered indirect effects of an agency action. Consultation Handbook at 4-29 (citing 529 F.2d 359 (5th Cir. 1976)). There, the Federal Highway Administration financed and controlled 90% of an interstate highway project that ran through endangered sandhill crane habitat, including the placement of highway interchanges. The court held that the agency's decision to place a highway interchange in the crane's habitat would have the indirect effect of causing associated commercial and residential development to occur at that location, and thus such impacts must be considered as indirect effects of the agency's decision. The court's decision was based on the extent to which the agency controlled and determined the location of private development, based on its extensive control over the highway routing and placement of interchanges. 529 F.2d at 374. By contrast, where (as here) local land use plans anticipate or determine the location of private development, the impacts of such development are not deemed to be direct or indirect effects. *See*, *e.g.*, *City of Carmel-By-The-Sea v. U.S. Dep't of Transp*., 123 F.3d 1142, 1163 (9th Cir. 1997).

no indication that vehicle strikes are reasonably certain to occur as a result of the agency action. Therefore, such effects should not be attributed to the ITP, either directly or indirectly.[13]

IV. Conclusion

Attributing to the ITP effects that are not proximately caused by the ITP would render the NEPA and ESA analyses factually, scientifically, and legally unsound. It would leave the analyses without a limiting principle, and impose upon FWS and ECPO an arbitrary burden to address effects beyond their control. It would also require ECPO members to mitigate for the effects of third parties actions outside of their control. Such an approach is not only objectionable to ECPO, but would dissuade other groups from pursuing similar HCPs. FWS should address roadway impacts on listed species as baseline conditions or in cumulative effects analyses, but should not treat these effects as "direct" or "indirect" effects attributable to or controlled by the ITP.

[13] During discussions on this matter, reference was made to the consideration of traffic impacts in the City Gate ITP Environmental Assessment (EA) and Biological Opinion (BO). Those documents discuss traffic impacts, but do so in general connection with the overall underlying project; they do not state that traffic impacts are caused by the ITP. Indeed, even with respect to the overall project, the BO explains that FWS cannot attempt to attribute any specific level of traffic impacts because "[t]raffic and intraspecific aggression are risks to the panther that are cumulative in nature, and, as such, they are difficult to quantify or to tie to any specific project." BO at 63. Thus, the City Gate EA and BO do not provide a basis for treating roadway impacts as effects of the ITP.

From: Oetker, Michael
To: Frazer, Gary
Cc: Miranda, Leopoldo; Jeff Newman; Lisa Ellis; Trish Adams; Cynthia Dohner
Subject: Re: Eastern Collier HCP -- white paper
Date: Tuesday, May 2, 2017 10:32:52 AM

Gary

We got in touch with the attorney assigned to this issue. She has also been heavily involved with the red wolf litigation. She will provide her review of the document by mid May.

Mike

On Fri, Apr 28, 2017 at 9:10 AM, Frazer, Gary <gary_frazer@fws.gov> wrote:

> Mike -- Thanks for digging into whether there's an issue with SOL involvement (or lack thereof) with the Collier Co HCP. Here's what I got from one of the applicant's attorney on the issue of how to handle vehicular strikes of panthers, which is reportedly the issue that they're wrestling with. -- GDF
>
> *Gary Frazer*
> *Assistant Director -- Ecological Services*
> *U.S. Fish and Wildlife Service*
> *(202) 208-4646*
>
> ---------- Forwarded message ----------
> From: **Albrecht, Virginia** <valbrecht@hunton.com>
> Date: Thu, Apr 27, 2017 at 2:10 PM
> Subject: Eastern Collier HCP -- white paper
> To: "Frazer, Gary" <gary_frazer@fws.gov>
>
> Gary – Here's the white paper we sent to the Service in February. As discussed, we had very productive meetings in Collier County yesterday and Tuesday with Rob Tawes and David Dell (from the regional office) and Ken MacDonald and Connie Casseler (sp?) (from Vero Beach) and have made good progress on completing the HCP and the draft EIS (and related environmental reviews). All agree that in order to move forward we need the Solictor's office to engage on the issue of how to address vehicle strikes of panthers, and we appreciate your help in securing that important involvement. I think there was general sentiment that the decision how to address vehicle strikes could have national implications, so coordination with headquarters would likely be useful at some point.
>
> Let me know if you need anything further. I will be out of the office today and tomorrow so best way to call me is via cell phone – 240-498-6409.

Thanks, Virginia

HUNTON& WILLIAMS

Virginia S. Albrecht

Special Counsel

valbrecht@hunton.com

p 202.955.19433

bio | vCard

Hunton & Williams LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037

hunton.com

--
Mike Oetker
Deputy Regional Director
USFWS, Southeast Region
404-679-4000

From: Morris, Charisa
To: Miranda, Leopoldo; Foster, Maureen; Melissa Beaumont
Subject: Re: East Collier Multi-species Habitat Conservation Plan: Draft Email and Revised Waiver for the Department
Date: Tuesday, March 26, 2019 1:30:07 PM

+ Maureen and Melissa

We have no formal guidance on process, yet. However, I'm looping in Maureen, as she has taken a leadership role in these meetings and may have suggestions for how best to request an extension.

On Tue, Mar 26, 2019 at 3:26 PM Miranda, Leopoldo <leopoldo_miranda@fws.gov> wrote:

> **Charisa,**
>
> **Not sure if you have already been contacted by my folks in ATL. Margaret asked me to check with you on process to transmit this request for an extension for this EIS.**
>
> **Could you shine some light on this?**
>
> **Leo**
>
> Leopoldo "Leo" Miranda
> Regional Director
> U.S. Fish and Wildlife Service
> 1875 Century Boulevard
> Atlanta, GA 30345
> 404-679-4000
> Leopoldo_Miranda@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.***
>
> ---------- Forwarded message ---------
> From: **Reese, Acquanetta** <acquanetta_reese@fws.gov>
> Date: Tue, Mar 26, 2019 at 12:16 PM
> Subject: Fwd: East Collier Multi-species Habitat Conservation Plan: Draft Email and Revised Waiver for the Department
> To: Leopoldo Miranda <Leopoldo_Miranda@fws.gov>
> Cc: Oetker, Mike <michael_oetker@fws.gov>, Victoria Davis <Victoria_Davis@fws.gov>, Maloof, Laura <Laura_Maloof@fws.gov>, Tawes, Robert <Robert_Tawes@fws.gov>
>
> Hey Leo.....the email is below along with the email address to send the attached request to and folks to "cc". Your e-sig has been applied to attachment. Let us know if you have any questions. Thanks.
>
> *Acquanetta*

---------- Forwarded message ---------
From: **Tawes, Robert** <robert_tawes@fws.gov>
Date: Tue, Mar 26, 2019 at 11:09 AM
Subject: East Collier Multi-species Habitat Conservation Plan: Draft Email and Revised Waiver for the Department
To: Acquanetta Reese <acquanetta_reese@fws.gov>
Cc: Chris Guy <chris_guy@fws.gov>, Larry Williams <larry_williams@fws.gov>, Dell, David <david_dell@fws.gov>

Acquanetta, here is the draft email for transmittal of the timeline waiver to the Department that I just mentioned. Please let me know if you have any questions or need additional information. Rob

---

To: nepa.depsec@ios.doi.gov

From: Leo

cc: Rob Tawes, Gina Shultz, Trish Adams, Rachel London, David Dell, Maureen Foster

Subject: SO 3355 Timeline Waiver Request for East Collier Multi-species HCP

Deputy Secretary's Office - NEPA

Attached please find a request for waiver from SO 3355 timeline requirements. This affects the East Collier Multi-Species Habitat Conservation Plan.

Our current, approved deadline for finalizing the Record of Decision is May 29, 2019. We are requesting an extension of 60 days to July 29, 2019, as explained in the attached waiver request.

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

--
Charisa_Morris@fws.gov | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

From: Miranda, Leopoldo
To: Morris, Charisa
Cc: Foster, Maureen; Melissa Beaumont
Subject: Re: East Collier Multi-species Habitat Conservation Plan: Draft Email and Revised Waiver for the Department
Date: Tuesday, March 26, 2019 1:47:25 PM

Thanks!

Leopoldo "Leo" Miranda
Regional Director
U.S. Fish and Wildlife Service
1875 Century Boulevard
Atlanta, GA 30345
404-679-4000
Leopoldo_Miranda@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.

On Tue, Mar 26, 2019 at 3:30 PM Morris, Charisa <charisa_morris@fws.gov> wrote:

> + Maureen and Melissa
>
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To: Leopoldo Miranda <Leopoldo_Miranda@fws.gov>
Cc: Oetker, Mike <michael_oetker@fws.gov>, Victoria Davis <Victoria_Davis@fws.gov>, Maloof, Laura <Laura_Maloof@fws.gov>, Tawes, Robert <Robert_Tawes@fws.gov>

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Acquanetta

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Date: Tue, Mar 26, 2019 at 11:09 AM
Subject: East Collier Multi-species Habitat Conservation Plan: Draft Email and Revised Waiver for the Department
To: Acquanetta Reese <acquanetta_reese@fws.gov>
Cc: Chris Guy <chris_guy@fws.gov>, Larry Williams <larry_williams@fws.gov>, Dell, David <david_dell@fws.gov>

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To: nepa.depsec@ios.doi.gov

From: Leo

cc: Rob Tawes, Gina Shultz, Trish Adams, Rachel London, David Dell, Maureen Foster

Subject: SO 3355 Timeline Waiver Request for East Collier Multi-species HCP

Deputy Secretary's Office - NEPA

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Charisa_Morris@fws.gov | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

From: Phillips, Catherine
To: Gianfranco Basili
Subject: Fwd: [EXTERNAL] FWC/FWS meeting
Date: Friday, March 29, 2019 11:27:05 AM
Attachments: 2019_USFWS-FWC Meeting Agenda_DRAFT.docx

Catherine T. Phillips, Ph.D.
Field Supervisor
Panama City Field Office
1601 Balboa Avenue
Panama City, Florida 32405
850-769-0552 ext.242
850-348-6497 (cell)

---------- Forwarded message ---------
From: **Frohlich, Kipp** <kipp.frohlich@myfwc.com>
Date: Mon, Mar 25, 2019 at 3:43 PM
Subject: [EXTERNAL] FWC/FWS meeting
To: Larry Williams <larry_williams@fws.gov>, rafael_gonzalez@fws.gov <rafael_gonzalez@fws.gov>, catherine_phillips@fws.gov <catherine_phillips@fws.gov>, jay_herrington@fws.gov <jay_herrington@fws.gov>, Roxanna Hinzman (roxanna_hinzman@fws.gov) <roxanna_hinzman@fws.gov>
Cc: Tucker, Melissa <Melissa.Tucker@myfwc.com>, Alden, Andrea <Andrea.Alden@myfwc.com>

FWS colleagues:

FWC staff worked off of past agendas to develop the attached and focused on topics that FWC would like to include in the coordination meeting. Additional species or refinement of topics would be much appreciated to make sure that the Services coordination topics are also well represented.

A few things that I wanted to draw your attention to:

1. Some of the individual species discussions usually reserved for the last day have been moved to the 2nd day, to support the at-risk, listing, and recovery topics. Other species may be appropriate to cover in these segments, so please add as needed.
2. Last year, Sean gave a great presentation on the listing process. For delisting, we would love a similar presentation, picking up after the elicitation team decision with the steps and a typical timeline that the Service follows.
3. For the at-risk species topic, one of the things we thought would be useful is a

'scorecard' on what where each of the FY17, 18, and 19 species is at (proposed for listing, not warranted, delayed, SSA still underway, etc.)
4. We took a stab at names for topics.
5. For SSAs – would it be useful to have someone from Atlanta participate for better coordination on species without a Florida lead?

Andrea Alden continues to be our lead, and if you all have specific changes or ideas please work directly with her.

Kipp Frohlich, Director

Division of Habitat and Species Conservation

Florida Fish and Wildlife Conservation Commission

620 South Meridian Street

Tallahassee, FL 32399-1600

office: 850 488-3831 cell:850 528-8151

Florida Fish and Wildlife Conservation Commission
And U.S. Fish and Wildlife Service
Coordination Meeting
May 21-23, 2019
Camp Weed, Live Oak, Florida

Meeting Planners: Andrea Alden, Rafael Gonzalez, LeeAnn Kelso, and Natalie Montero
Facilitators: Caroline Gorga and Lily Swanbrow Becker

Day 1: Tuesday, May 21

Time	***Topic***	***Purpose***	***Lead***
12:00-1:00	Arrive Camp Weed, Check in		All
1:00-1:30	Welcome/introductions/ logistics	Understand agenda, logistics of meeting	Kipp Frohlich and Larry Williams (Facilitator: Caroline Gorga)
1:30-2:00	The only thing that's constant is change	Who's in, who's out, and who's still here?	Kipp Frohlich and Rafael Gonzalez
2:00–2:30	Update on action items from 2018 meeting (handout)	Review and update on action items. Identify where follow-up is still needed	Facilitator: Caroline Gorga
2:30–3:00	Update of the SWAP and Landscape Conservation Initiative		Brian Branciforte and Beth Stys
3:00-3:15	Break		All
3:15-3:45	FNAI & NatureServe relevance		Frank Price
3:45-4:30	Sec 6 updates: FY 18 traditional funded, non-traditional funded, and cooperative agreements		Lourdes Mena and Claire Sunquist Blunden
4:30-5:00	Sum up parking lot items, action items		Facilitator: Caroline Gorga
5:00–6:00	Free Time		All
6:00-7:30	Dinner		All
7:30–8:00	Teambuilding ****this is part of the meeting****	Get to know one another	Caroline Gorga and Lily Swanbrow Becker
8:00-'till	Bonfire or inside social (weather permitting)	Social	All

DRAFT

Day 2: Wednesday, May 22

Time	*Topic*	*Purpose*	*Lead*
8:00-8:30	Breakfast		All
8:30-8:45	Recap of yesterday's meeting, agenda review		Facilitator: Lily Swanbrow Becker
8:45-9:55	ESA: At-Risk	1) updates on projects and funding (example: FL scrub lizard) – 15 minutes, 2) "scorecard" on FL workplan – progress/status of species from FYs 17, 18, and 19 – 30 minutes, 3) planning workload & how we work together – 30 minutes	Vivian Negron-Ortiz, Layne Bolen, Lourdes Mena
9:55-10:05	Break		All
10:05-11:15	ESA: Listing	1) updates on Panama City Crayfish (Tucker), 2) updates on Suwannee moccasin shell (Blomquist), 3) planning workload & how we work together (FWS-led)	Melissa Tucker, Sean Blomquist, Vivian Negron-Ortiz, Layne Bolen, Lourdes Mena
11:15-12:00	ESA: Recovery & Delisting	1) recovery planning (example flatwoods salamander), 2) delisting – steps and timelines (potential example key deer)	Vivian Negron-Ortiz, Layne Bolen, Lourdes Mena, Claire Sunquist Blunden, Brie Ochoa
12:00-1:00	Lunch		All
1:00-1:35	ESA: Recovery & Delisting (continued)	3) workload & how we work together	Vivian Negron-Ortiz, Layne Bolen, Lourdes Mena, Claire Sunquist Blunden, Brie Ochoa
1:35-1:50	Wrap up from ESA topics		Facilitator: Caroline Gorga
2:00-2:30	Update on state imperiled species program		Brie Ochoa
2:30-3:00	SSAs coordination	discuss SSAs coordination and possible room for improvement	Brad Gruver and Larry Williams/Drew Becker
3:00-3:15	Break		All
3:15-3:45	Section 6 grants- FY1920 competitive grants for land acquisition and timeline for reverted funds	Understand when proposals are needed, how to make sure intent of funds are met	Claire Sunquist Blunden and Lourdes Mena
3:45-4:45	Status of HCPs development, next steps and update on planning	focus on Ft. Lauderdale/Tortuga Fest HCP and Miami-Dade	Tom Ostertag and Lourdes Mena

DRAFT

		Pine Rocklands HCP; brief updates on East Collier and Florida Beaches HCPs	
4:45-5:15	Updates on Implementing Regulations (50 CFR 17, 424)		Larry Williams/Roxanna Hinzman
5:15-5:45	Sum up parking lot items, action items		Facilitator: Caroline Gorga
5:45-6:00	Break		All
6:00-7:00	Dinner		All
7:00-8:00	Reserved for Parking Lot Items/Items that need to be addressed	TBD	All

Day 3: Thursday, May 23

Time	***Topic***	***Purpose***	***Lead***
8:00-8:30	Breakfast		All
8:30-8:45	Recap of yesterday's meeting, agenda review		Facilitator: Lily Swanbrow Becker
8:45–10:45	Species Round Robin - Update on status/each agency's ongoing efforts (Facilitator: Lily Swanbrow Becker)		
8:45-9:00	Manatees and Sea turtles	Update on major issues	Jay Herrington and Ron Mezich
9:00-9:15	Gopher tortoise	SSA update	Lourdes Mena and Deborah Burr
9:15-10:15	Panthers	Update on the SSA, permitting guidelines, USFWS grant program	David Shindle, Darrell Land
10:15-10:45	FL grasshopper sparrow	Species status; current resources committed (USFWS and state); needs for funding, working group and recovery plan	Ashleigh Blackford Claire Sunquist Blunden, Craig Faulhaber
10:45-11:00	Break / Last chance to check-out		All
11:00–11:30	Programmatic permitting (water) & 404 Assumption	Discuss status of dispersed water storage BO	Jennifer Goff, Jay Herrington, Bob Progulske
11:30-12:00	Meeting wrap-up: recap, to-do list, planning for next meeting		Facilitator: Caroline Gorga
12:00	Adjourn		All
12:00-1:00	Lunch is available	Must have reserved lunch ahead of time	All

DRAFT

From: Foster, Maureen
To: Leopoldo Miranda
Cc: Charisa Morris; frazer gary; Gina Shultz
Subject: Approval of waiver for ECPO, HCP
Date: Wednesday, April 3, 2019 2:11:04 PM
Attachments: Scanned from a Xerox Multifunction Printer.pdf

Attached is the approved waiver for Eastern Collier Property Owners (ECPO), Collier County, Florida, HCP.

Please let me know if you have any questions.

Maureen

Maureen D. Foster
Chief of Staff
Office of the Assistant Secretary
for Fish and Wildlife and Parks
1849 C Street, NW, Room 3161
Washington, DC 20240

202.208.5970 (desk)
202.208.4416 (main)

Maureen_Foster@ios.doi.gov

Request for Waiver of Time and Page Limits Under S.O. 3355

To: Office of the Deputy Secretary

Through: Margaret Everson, Principal Deputy Director

From: Leopoldo Miranda, Southeast Regional Director

Date: March 26, 2019

1. Bureau or Office Name: U.S. Fish and Wildlife Service

2. Title of Document: Eastern Collier Property Owners (ECPO or Applicants), Collier County, Florida, Habitat Conservation Plan (HCP)

3. Description of Action: Endangered Species Act, section 10 incidental take permit application by 11 landowners that would authorize incidental take of Florida panther and 18 other species due to development and earth mining over a requested 50-year term.

4. Time waiver: ■ 150 Page waiver: ☐ (*check all that apply*)

5. Was a waiver or extension previously granted, and if so, how much time or many pages were previously approved?

No waiver has been granted previously.

6. Description of Reason for Request:

The Draft EIS Notice of Availability closed December 3, 2018. The Applicants committed to providing responses to public comments (~2,000) and these were received February 8, 2019.

On December 20, 2018, the Service provided suggestions to the Applicants to strengthen the HCP based on the public comments received. The Service's next meeting with ECPO was February 1, 2019, where we discussed the suggested revisions. After two subsequent meetings, the Applicants' proposed February 28, 2019, as their initial target date to respond to our suggestions and provide a revised HCP. We received a partial response on March 8, 2019, and on March 25, 2019, the Service received ECPO's full, final version of the HCP. Part of the delay in revising their HCP stemmed from last-minute negotiations among the eleven ECPO members to finalize land-use coverage proposed in the HCP.

The EIS contractor continued work during the partial government shutdown. They provided a revised EIS incorporating public comments on February 22, 2019, and suggested additional analyses of traffic effects. On March 1, 2019, the Service approved the additional work to improve the highway traffic-effects analyses in the EIS. This analysis and the revised EIS were received from the contractor March 15, 2019.

The current Record of Decision (ROD) target date is May 29, 2019, (rescheduled from April 27, 2019, to evenly distribute Review Team briefings). We are requesting to adjust the ROD target date by 60 calendar days to:

a. Accommodate the Applicants' review and revisions to their HCP in response to public comment and our recommendations.
b. Allow the Service to review and finalize the latest revisions to the EIS supplied by the contractor.

This revised schedule would target May 10, 2019 for our Stage 5 Departmental briefing and July 29, 2019, for signature on the ROD.

7. Need and deadline (if any) for issuance of waiver(s) decision: We need to accommodate Applicants' desire to provide responses to public comments and to receive revisions to the HCP suggested by the Service on December 20, 2018, and clarified in our February 20, 2019, meeting with them. Late-breaking developments among Applicants have revised land-use acreages and alignments that affect our analyses in the EIS and biological opinion (BO). It is in the best interest of the administrative record and the project to fully incorporate and properly assess the changes.

8. Positions of affected stakeholders: The Applicants fully support our time waiver request.

9. Other relevant considerations: As expressed in our September 14, 2018, Department Review Team briefing, the Applicants are sensitive to liability for harm to panthers caused by third-party traffic effects. We expect push-back and debate with the Applicants once we share the draft BO with them.

Since April 2018, except during the partial government shutdown, we have met bi-weekly with the Applicants to discuss progress, share information, and needed information or documents. Our Secretarial timeline has been communicated to the Applicants.

Despite the delay in receiving key materials from the Applicants, we have continued to make progress on the biological opinion and final EIS, with up to 14 field office and 5 regional office staff working on this project at any given time. This is a top priority project for the Southeast Region.

10. Attachments: *If the request is for a waiver of the time requirement, attach a copy of the original and the new proposed project timeline with the waiver request.*

Granted: _____ Date: 4/1/19

Denied: _____ Date: _____

From: Shultz, Gina
To: Foster, Maureen
Cc: Leopoldo Miranda; Charisa Morris; frazer gary
Subject: Re: Approval of waiver for ECPO, HCP
Date: Wednesday, April 3, 2019 3:27:30 PM

Thank you!
Gina Shultz
Deputy Assistant Director, Ecological Services
U.S. Fish and Wildlife Service
MS: ES
5275 Leesburg Pike
Falls Church, VA 22041-3803
703-358-1985

On Wed, Apr 3, 2019 at 4:10 PM Foster, Maureen <maureen_foster@ios.doi.gov> wrote:

> Attached is the approved waiver for Eastern Collier Property Owners (ECPO), Collier County, Florida, HCP.
>
> Please let me know if you have any questions.
>
> Maureen
>
> _____
> Maureen D. Foster
> Chief of Staff
> Office of the Assistant Secretary
> for Fish and Wildlife and Parks
> 1849 C Street, NW, Room 3161
> Washington, DC 20240
>
> 202.208.5970 (desk)
> 202.208.4416 (main)
>
> Maureen_Foster@ios.doi.gov

From: Miranda, Leopoldo
To: Robert Tawes; Jack Arnold; Larry Williams
Subject: Fwd: Approval of waiver for ECPO, HCP
Date: Wednesday, April 3, 2019 3:54:05 PM

Yeah!

Leopoldo "Leo" Miranda
Regional Director
U.S. Fish and Wildlife Service
1875 Century Boulevard
Atlanta, GA 30345
404-679-4000
Leopoldo_Miranda@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.

---------- Forwarded message ---------
From: **Shultz, Gina** <Gina_Shultz@fws.gov>
Date: Wed, Apr 3, 2019 at 5:27 PM
Subject: Re: Approval of waiver for ECPO, HCP
To: Foster, Maureen <maureen_foster@ios.doi.gov>
Cc: Leopoldo Miranda <leopoldo_miranda@fws.gov>, Charisa Morris <charisa_morris@fws.gov>, frazer gary <Gary_Frazer@fws.gov>

Thank you!
Gina Shultz
Deputy Assistant Director, Ecological Services
U.S. Fish and Wildlife Service
MS: ES
5275 Leesburg Pike
Falls Church, VA 22041-3803
703-358-1985

On Wed, Apr 3, 2019 at 4:10 PM Foster, Maureen <maureen_foster@ios.doi.gov> wrote:

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> Please let me know if you have any questions.
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> Maureen
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> _____
> Maureen D. Foster
> Chief of Staff
> Office of the Assistant Secretary
> for Fish and Wildlife and Parks
> 1849 C Street, NW, Room 3161
> Washington, DC 20240
>
> 202.208.5970 (desk)

202.208.4416 (main)

Maureen_Foster@ios.doi.gov

From: Miranda, Leopoldo
To: Foster, Maureen
Cc: Charisa Morris; frazer gary; Gina Shultz
Subject: Re: Approval of waiver for ECPO, HCP
Date: Wednesday, April 3, 2019 3:55:41 PM

Awesome! THANK YOU!

Leopoldo "Leo" Miranda
Regional Director
U.S. Fish and Wildlife Service
1875 Century Boulevard
Atlanta, GA 30345
404-679-4000
Leopoldo_Miranda@fws.gov

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On Wed, Apr 3, 2019 at 4:10 PM Foster, Maureen <maureen_foster@ios.doi.gov> wrote:

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> _____
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> Chief of Staff
> Office of the Assistant Secretary
> for Fish and Wildlife and Parks
> 1849 C Street, NW, Room 3161
> Washington, DC 20240
>
> 202.208.5970 (desk)
> 202.208.4416 (main)
>
> Maureen_Foster@ios.doi.gov

From: Arnold, Jack
To: Miranda, Leopoldo
Cc: Robert Tawes; Larry Williams
Subject: Re: Approval of waiver for ECPO, HCP
Date: Wednesday, April 3, 2019 3:56:07 PM

Excellent. Thanks,
Jack Arnold
Acting Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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.

On Wed, Apr 3, 2019 at 4:53 PM Miranda, Leopoldo <leopoldo_miranda@fws.gov> wrote:

> **Yeah!**
>
> Leopoldo "Leo" Miranda
> Regional Director
> U.S. Fish and Wildlife Service
> 1875 Century Boulevard
> Atlanta, GA 30345
> 404-679-4000
> Leopoldo_Miranda@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.***
>
> ---------- Forwarded message ---------
> From: **Shultz, Gina** <Gina_Shultz@fws.gov>
> Date: Wed, Apr 3, 2019 at 5:27 PM
> Subject: Re: Approval of waiver for ECPO, HCP
> To: Foster, Maureen <maureen_foster@ios.doi.gov>
> Cc: Leopoldo Miranda <leopoldo_miranda@fws.gov>, Charisa Morris <charisa_morris@fws.gov>, frazer gary <Gary_Frazer@fws.gov>
>
> Thank you!
> Gina Shultz
> Deputy Assistant Director, Ecological Services
> U.S. Fish and Wildlife Service
> MS: ES

5275 Leesburg Pike
Falls Church, VA 22041-3803
703-358-1985

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> Chief of Staff
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> Washington, DC 20240
>
> 202.208.5970 (desk)
> 202.208.4416 (main)
>
> Maureen_Foster@ios.doi.gov

From: Miranda, Leopoldo
To: Margaret Everson; Melissa Beaumont
Subject: Fwd: Approval of waiver for ECPO, HCP
Date: Wednesday, April 3, 2019 5:36:21 PM

Thank you!

Leopoldo "Leo" Miranda
Regional Director
U.S. Fish and Wildlife Service
1875 Century Boulevard
Atlanta, GA 30345
404-679-4000
Leopoldo_Miranda@fws.gov

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From: **Shultz, Gina** <Gina_Shultz@fws.gov>
Date: Wed, Apr 3, 2019 at 5:27 PM
Subject: Re: Approval of waiver for ECPO, HCP
To: Foster, Maureen <maureen_foster@ios.doi.gov>
Cc: Leopoldo Miranda <leopoldo_miranda@fws.gov>, Charisa Morris <charisa_morris@fws.gov>, frazer gary <Gary_Frazer@fws.gov>

Thank you!
Gina Shultz
Deputy Assistant Director, Ecological Services
U.S. Fish and Wildlife Service
MS: ES
5275 Leesburg Pike
Falls Church, VA 22041-3803
703-358-1985

On Wed, Apr 3, 2019 at 4:10 PM Foster, Maureen <maureen_foster@ios.doi.gov> wrote:

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> Maureen
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> _____
> Maureen D. Foster
> Chief of Staff
> Office of the Assistant Secretary
> for Fish and Wildlife and Parks
> 1849 C Street, NW, Room 3161
> Washington, DC 20240

202.208.5970 (desk)
202.208.4416 (main)

Maureen_Foster@ios.doi.gov

From: Guy, Chris
To: Miranda, Leopoldo
Cc: Jack Arnold; Larry Williams; Mike Oetker; Robert Tawes; Jeffrey Fleming; Roxanna Hinzman
Subject: Re: Approval of waiver for ECPO, HCP
Date: Wednesday, April 3, 2019 6:05:21 PM

---

much quicker than we thought! Thanks!
Christopher P. Guy

Acting Deputy Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7085 Office
443-758-8628 Cell
chris_guy@fws.gov

Chesapeake Bay Field Office e-newsletter at http://chesapeakebay.fws.gov

On Wed, Apr 3, 2019 at 5:55 PM Miranda, Leopoldo <leopoldo_miranda@fws.gov> wrote:

> **Here you go!**
>
> Leopoldo "Leo" Miranda
> Regional Director
> U.S. Fish and Wildlife Service
> 1875 Century Boulevard
> Atlanta, GA 30345
> 404-679-4000
> Leopoldo_Miranda@fws.gov
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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.***
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> ---------- Forwarded message ---------
> From: **Foster, Maureen** <maureen_foster@ios.doi.gov>
> Date: Wed, Apr 3, 2019 at 4:10 PM
> Subject: Approval of waiver for ECPO, HCP
> To: Leopoldo Miranda <leopoldo_miranda@fws.gov>
> Cc: Charisa Morris <charisa_morris@fws.gov>, frazer gary <Gary_Frazer@fws.gov>, Gina Shultz <Gina_Shultz@fws.gov>
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> _____

Maureen D. Foster
Chief of Staff
Office of the Assistant Secretary
for Fish and Wildlife and Parks
1849 C Street, NW, Room 3161
Washington, DC 20240

202.208.5970 (desk)
202.208.4416 (main)

Maureen_Foster@ios.doi.gov

From: Larry Williams
To: Miranda, Leopoldo
Cc: Jack Arnold; Mike Oetker; Robert Tawes; Jeffrey Fleming; Chris Guy
Subject: Re: Approval of waiver for ECPO, HCP
Date: Wednesday, April 3, 2019 7:48:21 PM

Great news! We really appreciate everyone's support on this. I forwarded it to Rox and the team in Vero.

Sent from my iPhone

On Apr 3, 2019, at 4:54 PM, Miranda, Leopoldo <leopoldo_miranda@fws.gov> wrote:

> **Here you go!**
>
> Leopoldo "Leo" Miranda
> Regional Director
> U.S. Fish and Wildlife Service
> 1875 Century Boulevard
> Atlanta, GA 30345
> 404-679-4000
> Leopoldo_Miranda@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.***
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> ---------- Forwarded message ---------
> From: **Foster, Maureen** <maureen_foster@ios.doi.gov>
> Date: Wed, Apr 3, 2019 at 4:10 PM
> Subject: Approval of waiver for ECPO, HCP
> To: Leopoldo Miranda <leopoldo_miranda@fws.gov>
> Cc: Charisa Morris <charisa_morris@fws.gov>, frazer gary <Gary_Frazer@fws.gov>, Gina Shultz <Gina_Shultz@fws.gov>
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> Maureen
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> _____
> Maureen D. Foster
> Chief of Staff
> Office of the Assistant Secretary
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> 1849 C Street, NW, Room 3161
> Washington, DC 20240

202.208.5970 (desk)
202.208.4416 (main)

Maureen_Foster@ios.doi.gov

<Scanned from a Xerox Multifunction Printer.pdf>

From: Leopoldo Miranda
To: Larry Williams
Cc: Jack Arnold; Mike Oetker; Robert Tawes; Jeffrey Fleming; Chris Guy
Subject: Re: Approval of waiver for ECPO, HCP
Date: Wednesday, April 3, 2019 7:49:29 PM

Margaret helped a lot!

Leo

Leopoldo Miranda, Regional Director
USFWS, Southeast Region
404-679-4000

Sent from my iPhone

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.

On Apr 3, 2019, at 9:48 PM, Larry Williams <larry_williams@fws.gov> wrote:

> Great news! We really appreciate everyone's support on this. I forwarded it to Rox and the team in Vero.
>
> Sent from my iPhone
>
> On Apr 3, 2019, at 4:54 PM, Miranda, Leopoldo <leopoldo_miranda@fws.gov> wrote:
>
> > **Here you go!**
> >
> > Leopoldo "Leo" Miranda
> > Regional Director
> > U.S. Fish and Wildlife Service
> > 1875 Century Boulevard
> > Atlanta, GA 30345
> > 404-679-4000
> > Leopoldo_Miranda@fws.gov
> >
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> >
> > ---------- Forwarded message ---------
> > From: **Foster, Maureen** <maureen_foster@ios.doi.gov>
> > Date: Wed, Apr 3, 2019 at 4:10 PM
> > Subject: Approval of waiver for ECPO, HCP

To: Leopoldo Miranda <leopoldo_miranda@fws.gov>
Cc: Charisa Morris <charisa_morris@fws.gov>, frazer gary <Gary_Frazer@fws.gov>, Gina Shultz <Gina_Shultz@fws.gov>

Attached is the approved waiver for Eastern Collier Property Owners (ECPO), Collier County, Florida, HCP.

Please let me know if you have any questions.

Maureen

_____

Maureen D. Foster
Chief of Staff
Office of the Assistant Secretary
for Fish and Wildlife and Parks
1849 C Street, NW, Room 3161
Washington, DC 20240

202.208.5970 (desk)
202.208.4416 (main)

Maureen_Foster@ios.doi.gov

<Scanned from a Xerox Multifunction Printer.pdf>

From: Morris, Charisa
To: Miranda, Leopoldo
Cc: Foster, Maureen; frazer gary; Gina Shultz
Subject: Re: Approval of waiver for ECPO, HCP
Date: Thursday, April 4, 2019 7:49:58 AM

This package was shared both by email and as a controlled package. In the future, we will only be managing these as DTS controlled packages (Maureen, if the hardcopy hasn't gotten to you yet, it's in your hallway, and can be closed out).

Thanks!
Charisa

On Wed, Apr 3, 2019 at 5:55 PM Miranda, Leopoldo <leopoldo_miranda@fws.gov> wrote:

> **Awesome! THANK YOU!**
>
> Leopoldo "Leo" Miranda
> Regional Director
> U.S. Fish and Wildlife Service
> 1875 Century Boulevard
> Atlanta, GA 30345
> 404-679-4000
> Leopoldo_Miranda@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.***
>
> On Wed, Apr 3, 2019 at 4:10 PM Foster, Maureen <maureen_foster@ios.doi.gov> wrote:
>
> > Attached is the approved waiver for Eastern Collier Property Owners (ECPO), Collier County, Florida, HCP.
> >
> > Please let me know if you have any questions.
> >
> > Maureen
> >
> > _____
> > Maureen D. Foster
> > Chief of Staff
> > Office of the Assistant Secretary
> > for Fish and Wildlife and Parks
> > 1849 C Street, NW, Room 3161
> > Washington, DC 20240
> >
> > 202.208.5970 (desk)
> > 202.208.4416 (main)
> >
> > Maureen_Foster@ios.doi.gov

--

Charisa_Morris@fws.gov | Chief of Staff, Office of the Director | U.S. Fish & Wildlife Service | 1849 C Street NW, Room 3348 | Washington, DC 20240 | (202) 208-3843 | For urgent matters, please dial cell: 301-875-8937

From: Leopoldo Miranda
To: Morris, Charisa
Cc: Foster, Maureen; frazer gary; Gina Shultz
Subject: Re: Approval of waiver for ECPO, HCP
Date: Thursday, April 4, 2019 7:53:12 AM

Thank you! It may be good to send a message out to all regions about it. The instructions we have from DOI is to send these things to the email address they created. I prefer the DTS route instead of that email address!

Thank you Charisa for tracking this down!!!

Leo

Leopoldo Miranda, Regional Director
USFWS, Southeast Region
404-679-4000

Sent from my iPhone

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On Apr 4, 2019, at 9:49 AM, Morris, Charisa <charisa_morris@fws.gov> wrote:

> This package was shared both by email and as a controlled package. In the future, we will only be managing these as DTS controlled packages (Maureen, if the hardcopy hasn't gotten to you yet, it's in your hallway, and can be closed out).
>
> Thanks!
> Charisa
>
> On Wed, Apr 3, 2019 at 5:55 PM Miranda, Leopoldo <leopoldo_miranda@fws.gov> wrote:
>
> **Awesome! THANK YOU!**
>
> Leopoldo "Leo" Miranda
> Regional Director
> U.S. Fish and Wildlife Service
> 1875 Century Boulevard
> Atlanta, GA 30345
> 404-679-4000
> Leopoldo_Miranda@fws.gov
>
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> Please let me know if you have any questions.
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From:	Alden, Andrea
To:	Sunquist, Claire; Boughton, Robin; Eason, Thomas; Goff, Jennifer; Gorga, Caroline; Gruver, Brad; Knox, Carol; Land, Darrell; Mezich, Ron; Montero, Natalie; Ochoa, Brie; Ostertag, Tom; Sharkey, Sarah; Stys, Beth; Sullivan, Daniel; Trindell, Robbin; Tucker, Melissa; fprice@fnai.fsu.edu; Blackford, Ashleigh; sean_blomquist@fws.gov; layne_bolen@fws.gov; timothy_breen@fws.gov; constance_cassler@fws.gov; annie_dziergowski@fws.gov; Rafael_Gonzalez@fws.gov; jay_herrington@fws.gov; roxanna_hinzman@fws.gov; Todd_Hopkins@fws.gov; nikki_lamp@fws.gov; Lourdes Mena; miles_meyer@fws.gov; Vivian_NegronOrtiz@fws.gov; catherine_phillips@fws.gov; donald_progulske@fws.gov; heath_rauschenberger@fws.gov; jose_rivera@fws.gov; larry_williams@fws.gov; Shindle, David B; cindy_fury@fws.gov; Frohlich, Kipp; Branciforte, Brian; McRae, Gil; Talley, Brooke; Daniel Hipes; Faulhaber, Craig; Doonan, Terry; Cook, David; Burr, Deborah; Eason, Thomas
Subject:	FWC/USFWS meeting
Date:	Thursday, April 18, 2019 5:44:21 AM
Attachments:	FWC_USFWS 2019 registration form.xlsx 2019_USFWS-FWC Meeting Agenda_DRAFT_16Apr2019.docx

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Hello again, everyone!

I hope that you all received Kipp's email from March 12th with the meeting invite and registration form (also attached). As a reminder, please fill out the registration form and send it back to me **by Friday, April 19th**. I need to have official headcounts to Camp Weed very soon!

A workgroup site has been developed for meeting participants/team members. The site is hosted on the Florida Conservation Planning Atlas (link below). This site will allow sharing of documents, images, maps, data, etc. We will have time at the meeting to discuss ways to use this site to increase communication and coordination between FWC and USFWS. The site is currently set to "Private" so only team members can access it. Meeting materials will be posted on the site. You will need to create a DataBasin user account in order to use the group feature.

The Conservation Planning Atlas can be found here: https://flcpa.databasin.org
To create an account:

- Click the "Sign Up" button in the top right hand corner.
- Create a username and password.
- Note: You will receive an automated confirmation email from DataBasin (it is not junk or spam). You will need to confirm your account through this email.
- Beth Stys will add you to the FWC/USFWS Coordination Workgroup. Just email her once you've created a username and password, Beth.Stys@MyFWC.com. When you are added to the group, you will receive an automated DataBasin email, letting you know you have been added. Click the link in the email and the Workgroup will show up under your My Workspace in the upper right side of the webpage.

Once you've accessed the Workgroup page, you'll notice that Beth and I have begun placing useful documents for this year's meeting under the Content tab. There are two items I'd like to draw your attention to:

1. First, is the Dropbox link to the 2018 Action Item list. **As a group, we need to update this document to include the status of the action items, important dates, and/or dates of completion. Please take a moment to address these updates by May 10th.** We will use this information to inform some of the agenda, so it's imperative we have updates prior to the meeting.
    a. To edit the document, click on 2018 Action Item list in DataBasin, click on the orange

Open External Resource link, then click “open with” next to the file name 2018 FWC-USFS Meeting Action Items_May2018 document, click Microsoft Excel Online. Make any changes that you want, then go to File and Exit. Your changes should be saved now (you might have to refresh the page to see edits).

2. Second, is the draft agenda for the meeting (also attached). We’ve worked with a small group of FWC and USFWS folks to put this draft agenda together. If you have concerns, please email me as soon as possible.

If you have any questions or difficulty accessing DataBasin or Dropbox, please feel free to contact me.

Thank you.

Andrea Alden
State Wildlife Grants Coordinator
Florida Fish and Wildlife Conservation Commission
Florida's Wildlife Legacy Initiative
620 S. Meridian St., MS:I0
Tallahassee, FL 32399
850-617-9558

Use the State Wildlife Action Plan and State Wildlife Grant funds to leverage resources with partners to sustain Florida’s legacy of native wildlife and their habitats

	Last Name	First Name	Agency	Arrival Time and Date	Dinner 5/21
1	Frohlich	Kipp	FWC	12:00pm, 5/21	Y
2					

Breakfast 5/22	Lunch 5/22	Dinner 5/22	Breakfast 5/23	Lunch 5/23
Y	Y	Y	Y	Y

Departure Time and Date	No lodging needed	Dietary Restrictions
1:00pm, 5/23		none

Florida Fish and Wildlife Conservation Commission
And U.S. Fish and Wildlife Service
Coordination Meeting
May 21-23, 2019
Camp Weed, Live Oak, Florida

Meeting Planners: Andrea Alden, Rafael Gonzalez, LeeAnn Kelso, and Natalie Montero
Facilitators: Caroline Gorga and Brooke Talley

Day 1: Tuesday, May 21

Time	***Topic***	***Purpose***	***Lead***
12:00-1:00	Arrive Camp Weed, Check in		All
1:00-1:30	Welcome/introductions/ logistics	Understand agenda, logistics of meeting	Kipp Frohlich and Larry Williams (Facilitator: Caroline Gorga)
1:30-2:00	The only thing that's constant is change	Who's in, who's out, and who's still here?	Kipp Frohlich and Rafael Gonzalez
2:00–2:30	Update on action items from 2018 meeting (handout)	Review and update on action items. Identify where follow-up is still needed	Facilitator: Caroline Gorga
2:30–3:00	Landscape Conservation Initiative, DataBasin, and Ongoing grant	Understanding the LCI and how DataBasin can be used for collaboration	Todd Hopkins, Beth Stys
3:00-3:15	Break		All
3:15-3:45	FNAI & NatureServe relevance	Understanding FNAI's role and types of data stored in NatureServe	Frank Price
3:45-4:15	Sec 6 updates: FY 18 traditional funded, non-traditional funded, and cooperative agreements	Coordination on dates, timelines, and addressing issues/concerns	Lourdes Mena and Claire Sunquist Blunden
4:15-4:45	Status of HCPs development, next steps and update on planning	focus on Ft. Lauderdale/Tortuga Fest HCP and Miami-Dade Pine Rocklands HCP; brief updates on East Collier and Florida Beaches HCPs	Tom Ostertag and Lourdes Mena
4:45–5:15	Sum up parking lot items, action items		Facilitator: Caroline Gorga
5:15-6:00	Break		All
6:00-7:30	Dinner		All
7:30–8:00	Teambuilding ****this is part of the meeting****	Get to know one another	Caroline Gorga and Brooke Talley
8:00-'till	Bonfire or inside social (weather permitting)	Social	All

DRAFT

Day 2: Wednesday, May 22

Time	*Topic*	*Purpose*	*Lead*
8:00-8:30	Breakfast		All
8:30-8:45	Recap of yesterday's meeting, agenda review		Facilitator: Brooke Talley
8:45-10:30	ESA: At-Risk **Workplan for ESA discussions is available at the Florida Landscape Cooperative DataBasin Portal, filename Draft FY19 Workplan Spreadsheet_FWCInput_20Jul2018*	1) update on state imperiled species program, 2) updates on projects and funding (example: FL scrub lizard), 3) "scorecard" on FL workplan* – progress/status of species from FYs 17, 18, and 19, 4) planning workload & how we work together	Vivian Negron-Ortiz, Layne Bolen, Lourdes Mena, Claire Sunquist Blunden, Brie Ochoa
10:30-10:40	Break		All
10:40-12:00	ESA: Listing	1) updates on Panama City Crayfish (Blomquist and Tucker), 2) updates on Suwannee moccasin shell (Blomquist), 3) planning workload & how we work together (FWS-led)	Melissa Tucker, Sean Blomquist, Vivian Negron-Ortiz, Layne Bolen, Lourdes Mena
12:00-1:00	Lunch		All
1:00-1:30	ESA: Listing (continued)	1) updates on Panama City Crayfish (Blomquist and Tucker), 2) updates on Suwannee moccasin shell (Blomquist), 3) planning workload & how we work together (FWS-led), including SSA coordination	Melissa Tucker, Sean Blomquist, Vivian Negron-Ortiz, Layne Bolen, Lourdes Mena
1:30-3:30	ESA: Recovery & Delisting	1) recovery planning (example flatwoods salamander), 2) delisting – steps and timelines (potential example key deer), 3) workload & how we work together	Vivian Negron-Ortiz, Layne Bolen, Lourdes Mena, Claire Sunquist Blunden, Brie Ochoa
3:30-3:45	Break		All
3:45-4:15	Wrap up from ESA topics		Facilitator: Caroline Gorga
4:15-4:40	Section 6 grants- FY1920 competitive grants for land acquisition and timeline for reverted funds	Understand when proposals are needed, how to make sure intent of	Claire Sunquist Blunden and Lourdes Mena

DRAFT

		funds are met, address state funding process	
4:40-5:10	Sum up parking lot items, action items		Facilitator: Caroline Gorga
5:10-6:00	Break		All
6:00-7:00	Dinner		All
7:00-8:00	Manatees, Sea Turtles & Gopher Tortoises *(optional agenda topic for those directly involved)*	Update on major issues, SSA update	Jay Herrington and Ron Mezich; Lourdes Mena and Deborah Burr

Day 3: Thursday, May 23

Time	***Topic***	***Purpose***	***Lead***
8:00-8:30	Breakfast		All
8:30-8:45	Recap of yesterday's meeting, agenda review		Facilitator: TBD Facilitator
Concurrent Species Sessions			
8:45-9:45	**Concurrent Session:** Panthers	Update on the SSA, permitting guidelines, USFWS grant program	David Shindle, Darrell Land
	Concurrent Session: FL grasshopper sparrow	Species status; current resources committed (USFWS and state); needs for funding, working group and recovery plan	Ashleigh Blackford Claire Sunquist Blunden, Craig Faulhaber
9:45-10:15	404 Assumption	Discuss concerns, workload & coordination	Jennifer Goff, Jay Herrington, Bob Progulske
10:15–10:45	Species Wrap Up – provide whole group with summary of above concurrent sessions as needed (Facilitator: Brooke Talley)		
10:45-11:00	Break / Last chance to check-out		All
11:00-12:00	Meeting wrap-up: recap, to-do list, planning for next meeting	Part of the purpose – identify date(s) for next year's meeting	Facilitator: Caroline Gorga
12:00	Adjourn		All
12:00-1:00	Lunch is available	Must have reserved lunch ahead of time	All

<u>To cover during later Coordination Calls:</u>

1. Updates on Implementing Regulations (50 CFR 17, 424)
2. Programmatic permitting (water)

DRAFT

From: Arnold, Jack
To: Leopoldo Miranda
Cc: Aaron Valenta
Subject: Fwd: Pre-listing mitigation credits policy
Date: Thursday, April 18, 2019 8:02:00 AM

Leo - I visited with Aaron this AM about this. He recommended himself, David Dell, Jerry Ziewitz, and Martha be the small group for next discussion with SoCo. The only conflict timeline-wise is the fact that David and Jerry are consumed with E Collier.

Let me know if you want to discuss further.

Jack Arnold
Acting Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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.

---------- Forwarded message ---------
From: **Leopoldo Miranda** <leopoldo_miranda@fws.gov>
Date: Tue, Apr 16, 2019 at 5:00 PM
Subject: Pre-listing mitigation credits policy
To: Mark Berry <MSBerry@southernco.com>, Joe Ernest Slaughter <JESLAUGH@southernco.com>, Jennifer H Winn <JLHALL@southernco.com>
Cc: Jack Arnold <jack_arnold@fws.gov>, <michael_oetker@fws.gov>

Mark et al.

Again, thanks for your time earlier today! Copying Jack Arnold (Acting ARD for Ecological Services) and Mike.

Here is a link to the national policy that was developed after the DoD agreement we did here in the Southeast.

https://www.fws.gov/endangered/improving_ESA/pdf/Director'sOrder_with_Voluntary_Prelisting_conservation_policy_Directors_Order_Attachment-Final.pdf

Leo

Leopoldo Miranda, Regional Director
USFWS, Southeast Region
404-679-4000

Sent from my iPhone

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From: Miranda, Leopoldo
To: Mark Berry; Winn, Jennifer H; Slaughter, Joe Ernest
Cc: Keller, Martha; Jack Arnold
Subject: Fwd: Pre-listing mitigation credits policy
Date: Friday, April 19, 2019 11:13:33 AM

Mark

Thank you again for your time earlier this week. As discussed, our main POC would be Martha Keller, our At Risk species coordinator. There are several other folks that will be good to have but for coordinating the meeting, Martha (copied here) is your person

Thanks again!!!

Leo

Leopoldo "Leo" Miranda
Regional Director
U.S. Fish and Wildlife Service
1875 Century Boulevard
Atlanta, GA 30345
404-679-4000
Leopoldo_Miranda@fws.gov

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---------- Forwarded message ---------
From: **Arnold, Jack** <jack_arnold@fws.gov>
Date: Thu, Apr 18, 2019 at 10:02 AM
Subject: Fwd: Pre-listing mitigation credits policy
To: Leopoldo Miranda <leopoldo_miranda@fws.gov>
Cc: Aaron Valenta <Aaron_Valenta@fws.gov>

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Jack Arnold
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To: Mark Berry <MSBerry@southernco.com>, Joe Ernest Slaughter <JESLAUGH@southernco.com>, Jennifer H Winn <JLHALL@southernco.com>
Cc: Jack Arnold <jack_arnold@fws.gov>, <michael_oetker@fws.gov>

Mark et al.

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Leo

Leopoldo Miranda, Regional Director
USFWS, Southeast Region

404-679-4000

Sent from my iPhone

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From: Berry, Mark S.
To: "Miranda, Leopoldo"
Cc: Keller, Martha; Jack Arnold; Perkna, Glennis; Winn, Jennifer H; Slaughter, Joe Ernest
Subject: RE: Pre-listing mitigation credits policy
Date: Saturday, April 20, 2019 3:16:41 PM

Leo,

We are looking forward to working with US FWS on this topic. We can take the lead in proposing some dates for the next meeting.

Regards,
Mark Berry

From: Miranda, Leopoldo <leopoldo_miranda@fws.gov>
Sent: Friday, April 19, 2019 1:13 PM
To: Berry, Mark S. <MSBERRY@southernco.com>; Winn, Jennifer H <JLHALL@southernco.com>; Slaughter, Joe Ernest <JESLAUGH@southernco.com>
Cc: Keller, Martha <martha_keller@fws.gov>; Jack Arnold <jack_arnold@fws.gov>
Subject: Fwd: Pre-listing mitigation credits policy

EXTERNAL MAIL: Caution Opening Links or Files

Mark

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Thanks again!!!

Leo

Leopoldo "Leo" Miranda
Regional Director
U.S. Fish and Wildlife Service
1875 Century Boulevard
Atlanta, GA 30345
404-679-4000
Leopoldo_Miranda@fws.gov

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Subject: Fwd: Pre-listing mitigation credits policy
To: Leopoldo Miranda <leopoldo_miranda@fws.gov>
Cc: Aaron Valenta <Aaron_Valenta@fws.gov>

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Mark et al.

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Here is a link to the national policy that was developed after the DoD agreement we did here in the Southeast.

https://www.fws.gov/endangered/improving_ESA/pdf/Director'sOrder_with_Voluntary_Prelisting_conservation_policy_Directors_Order_Attachment-Final.pdf [fws.gov]

Leo

Leopoldo Miranda, Regional Director
USFWS, Southeast Region
404-679-4000

Sent from my iPhone

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:	Leopoldo Miranda
To:	Jack Arnold; Robert Tawes
Cc:	David Scott; michael_oetker@fws.gov
Subject:	Notes on East Collier HCP Panther model issue
Date:	Tuesday, April 30, 2019 6:53:30 PM

Jack/Rob

Thank you for your time today briefing me on Angela's impartial assessment of the disagreements among field office staff on the FL Panther models. Based on what we talked today, what I understand is that there are two models being used within the same field office (Vero Beach) to evaluate potential impact on panthers and future scenarios. One model is being used by our species expert and species recovery lead in the on-going Species Status Assessment (SSA). This model has been peer-reviewed and the developer is awaiting publication on a scientific journal (in press). The other model is an internal field office model that is being used by Consultation biologists within the same office. This model incorporates several data sets and has not been peer-reviewed. As a scientific modeling expert, Angela has some concerns about the way the field office is using this internal model, the assumptions behind it and the datasets. I also, understood from today's briefing that the species recovery lead has similar concerns on this internal model.

Regardless of these field staff disagreements, my position is that we must adhere to our mandate to use the best available information and ensure full compliance with our scientific integrity policies. Of paramount importance is the use of peer-reviewed documents and tools when these are highly influential in our policy/regulatory decisions. I fully support your approach of using the peer-reviewed and best available model to guide the policy/regulatory decisions the agency is facing with the East Collier HCP Biological Opinion.

Please, consult with David Scott, our science integrity officer (copies here) so we can make sure we are in full compliance with these policies. Also, thank you for involving Angela as an independent observer to give you additional unbiased feedback on this issue.

Leo

Leopoldo Miranda, Regional Director
USFWS, Southeast Region
404-679-4000

Sent from my iPhone

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:	Tawes, Robert
To:	Jack Arnold; Miranda, Leopoldo; Michael Oetker
Cc:	Roxanna Hinzman; Larry Williams; Dell, David
Subject:	For Your Awareness: East Collier HCP: ECPO"s Request to Department
Date:	Wednesday, May 15, 2019 5:37:48 AM

Hi Leo and Mike. As you know we are working with the applicants for the East Collier HCP on the traffic analysis and roadway mortality of panthers. Christian Spilker from ECPO called the Department to let them know that we were jointly working through these issues, and that they would like a 30 day pause as we develop solutions. David has additional details in his email below. We wanted to let you know in the event either of you receive a call from either Headquarters or the Department. Please let me know if you have any questions or need any additional information. Rob

---------- Forwarded message ---------
From: **Dell, David** <david_dell@fws.gov>
Date: Tue, May 14, 2019 at 3:32 PM
Subject: East Collier HCP: ECPO's Request to Department
To: Robert Tawes <Robert_Tawes@fws.gov>

In today's discussion with ECPO, Christian Spilker informed us that they had reached out to the Department to alert them to the need for a pause from the SO 3355 timeline. They told the Department that time is needed to allow ECPO to provide technical input to our impacts analysis, and that ECPO wants us to make the most defensible decision possible. Christian described the Deaprtment's response as receptive, but we do not have a greenlight. ECPO expects to hear back from the Department with a determination. Christian spoke in terms of a 30-day pause, but we do not have specifics. We do not know who ECPO spoke to.

We want to make youaware in the event anything comes down through HQ. We plan to provide a more formal extension request, but we are still not able to make a timeline until ECPO is ready to discuss their input to the traffic models (planned by June 6 or 7).

David Dell
US Fish and Wildlife Service
Southeast Region
HCP and Safe Harbors Coordinator
404/679-7313
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.

--
Rob W. Tawes
Chief, Division of Environmental Review

U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
www.fws.gov

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From:	Michael Oetker
To:	Tawes, Robert
Cc:	Jack Arnold; Miranda, Leopoldo; Michael Oetker; Roxanna Hinzman; Larry Williams; Dell, David
Subject:	Re: For Your Awareness: East Collier HCP: ECPO"s Request to Department
Date:	Wednesday, May 15, 2019 5:42:50 AM

Thanks for the update.

Mike

Sent from my iPhone

On May 15, 2019, at 6:37 AM, Tawes, Robert <robert_tawes@fws.gov> wrote:

> Hi Leo and Mike. As you know we are working with the applicants for the East Collier HCP on the traffic analysis and roadway mortality of panthers. Christian Spilker from ECPO called the Department to let them know that we were jointly working through these issues, and that they would like a 30 day pause as we develop solutions. David has additional details in his email below. We wanted to let you know in the event either of you receive a call from either Headquarters or the Department. Please let me know if you have any questions or need any additional information. Rob
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> Date: Tue, May 14, 2019 at 3:32 PM
> Subject: East Collier HCP: ECPO's Request to Department
> To: Robert Tawes <Robert_Tawes@fws.gov>
>
> In today's discussion with ECPO, Christian Spilker informed us that they had reached out to the Department to alert them to the need for a pause from the SO 3355 timeline. They told the Department that time is needed to allow ECPO to provide technical input to our impacts analysis, and that ECPO wants us to make the most defensible decision possible. Christian described the Deaprtment's response as receptive, but we do not have a greenlight. ECPO expects to hear back from the Department with a determination. Christian spoke in terms of a 30-day pause, but we do not have specifics. We do not know who ECPO spoke to.
>
> We want to make youaware in the event anything comes down through HQ. We plan to provide a more formal extension request, but we are still not able to make a timeline until ECPO is ready to discuss their input to the traffic models (planned by June 6 or 7).
>
> David Dell
> US Fish and Wildlife Service
> Southeast Region
> HCP and Safe Harbors Coordinator
> 404/679-7313

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.

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
www.fws.gov

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From: Leopoldo Miranda
To: Arnold, Jack
Cc: Mike Oetker; Rob Tawes; Larry Williams
Subject: Re: East Collier HCP: IM for a Pause
Date: Monday, June 3, 2019 10:13:07 AM

I read it and have some feedback.

Leo

Leopoldo Miranda, Regional Director
USFWS, Southeast Region
404-679-4000

Sent from my iPhone

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On May 31, 2019, at 6:08 PM, Arnold, Jack <jack_arnold@fws.gov> wrote:

> Hi Leo - Larry is still reviewing the attached, but I wanted to forward this to you. If you have time on Monday, I'd like to find a time for Rob and I to give you a quick update, and get your feedback on whether we should forward this to the Director's Office for their information and awareness - in anticipation of submitting a second waiver request to extend the due date for completion of the E. Collier County HCP.
>
> I'll check with Acquanetta/Laura on Monday AM before staff meeting to see if there is a time we can get together for a quick discussion.
>
> Thanks,
>
> Jack Arnold
> Acting Assistant Regional Director - Ecological Services
> U.S. Fish and Wildlife Service
> 1875 Century Blvd.
> Atlanta, GA 30345
> 404-679-7311 office
> 404-679-7081 fax
> 703-789-5620 cell
>
> 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.

---------- Forwarded message ---------
From: **Dell, David** <david_dell@fws.gov>
Date: Fri, May 31, 2019 at 2:32 PM
Subject: East Collier HCP: IM for a Pause
To: Jack Arnold <jack_arnold@fws.gov>
Cc: Larry Williams <larry_williams@fws.gov>, Roxanna Hinzman <roxanna_hinzman@fws.gov>, Robert Tawes <Robert_Tawes@fws.gov>

Jack: As you and Rob discussed, here's the draft IM. You'll see the pathname at the end -- its in Admin-530.

David Dell
US Fish and Wildlife Service
Southeast Region
HCP and Safe Harbors Coordinator
404/679-7313
david_dell@fws.gov

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<20190531 IM ECPO HCP pause.docx>

From: Arnold, Jack
To: Leopoldo Miranda
Cc: Mike Oetker; Rob Tawes; Larry Williams
Subject: Re: East Collier HCP: IM for a Pause
Date: Monday, June 3, 2019 10:43:54 AM

I can set up a conference call if you want to discuss later this afternoon. We've got our ES Sr Mgmt Team staff meeting at 1 - is there a time that works best for you after that? 2:30 or 3? I can send out a calendar invite/conference number....

Thanks,

Jack Arnold
Acting Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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On Mon, Jun 3, 2019 at 12:13 PM Leopoldo Miranda <leopoldo_miranda@fws.gov> wrote:

> I read it and have some feedback.
>
> Leo
>
> Leopoldo Miranda, Regional Director
> USFWS, Southeast Region
> 404-679-4000
>
> Sent from my iPhone
>
> ***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.***
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> > Hi Leo - Larry is still reviewing the attached, but I wanted to forward this to you. If you have time on Monday, I'd like to find a time for Rob and I to give you a quick update, and get your feedback on whether we should forward this to the Director's Office for their information and awareness - in anticipation of

submitting a second waiver request to extend the due date for completion of the E. Collier County HCP.

I'll check with Acquanetta/Laura on Monday AM before staff meeting to see if there is a time we can get together for a quick discussion.

Thanks,

Jack Arnold
Acting Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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Date: Fri, May 31, 2019 at 2:32 PM
Subject: East Collier HCP: IM for a Pause
To: Jack Arnold <jack_arnold@fws.gov>
Cc: Larry Williams <larry_williams@fws.gov>, Roxanna Hinzman <roxanna_hinzman@fws.gov>, Robert Tawes <Robert_Tawes@fws.gov>

Jack: As you and Rob discussed, here's the draft IM. You'll see the pathname at the end -- its in Admin-530.

David Dell
US Fish and Wildlife Service
Southeast Region
HCP and Safe Harbors Coordinator
404/679-7313
david_dell@fws.gov

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<20190531 IM ECPO HCP pause.docx>

From: Tawes, Robert
To: Reese, Acquanetta
Cc: Oetker, Michael; Arnold, Jack; Leopoldo Miranda; Larry Williams
Subject: Re: East Collier HCP: IM for a Pause
Date: Monday, June 3, 2019 12:31:12 PM

If we move to 3:30 we will lose Larry. However Larry said that he could catch up with us. I think it would be good to have Larry on the call if at all possible (maybe have call at 3:15) but if we can't then Jack and I will fill him in. Thanks. Rob

On Mon, Jun 3, 2019 at 2:25 PM Reese, Acquanetta <acquanetta_reese@fws.gov> wrote:

> Hey Rob.....Leo will be an hour behind us once he lands in AL.....can we move this to 3:30 pm? His plane lands at 2:40pm EST. He should be ready for a call by 3:30 pm.
>
> On Mon, Jun 3, 2019 at 2:07 PM Tawes, Robert <robert_tawes@fws.gov> wrote:
>
> > Just talked with Larry and Jack and we are all good with 3:00. Thanks. Rob
> >
> > On Mon, Jun 3, 2019 at 2:05 PM Reese, Acquanetta <acquanetta_reese@fws.gov> wrote:
> >
> > > how about today at 3:00 pm?
> > >
> > > On Mon, Jun 3, 2019 at 1:06 PM Oetker, Michael <michael_oetker@fws.gov> wrote:
> > >
> > > > Adding Acquanetta
> > > >
> > > > On Mon, Jun 3, 2019 at 12:43 PM Arnold, Jack <jack_arnold@fws.gov> wrote:
> > > >
> > > > > I can set up a conference call if you want to discuss later this afternoon. We've got our ES Sr Mgmt Team staff meeting at 1 - is there a time that works best for you after that? 2:30 or 3? I can send out a calendar invite/conference number....
> > > > >
> > > > > Thanks,
> > > > >
> > > > > Jack Arnold
> > > > > Acting Assistant Regional Director - Ecological Services
> > > > > U.S. Fish and Wildlife Service
> > > > > 1875 Century Blvd.
> > > > > Atlanta, GA 30345
> > > > > 404-679-7311 office
> > > > > 404-679-7081 fax
> > > > > 703-789-5620 cell
> > > > >
> > > > > 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.
> > > > >
> > > > > On Mon, Jun 3, 2019 at 12:13 PM Leopoldo Miranda <leopoldo_miranda@fws.gov> wrote:
> > > > >
> > > > > > I read it and have some feedback.
> > > > > >
> > > > > > Leo

Leopoldo Miranda, Regional Director
USFWS, Southeast Region
404-679-4000

Sent from my iPhone

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> Hi Leo - Larry is still reviewing the attached, but I wanted to forward this to you. If you have time on Monday, I'd like to find a time for Rob and I to give you a quick update, and get your feedback on whether we should forward this to the Director's Office for their information and awareness - in anticipation of submitting a second waiver request to extend the due date for completion of the E. Collier County HCP.
>
> I'll check with Acquanetta/Laura on Monday AM before staff meeting to see if there is a time we can get together for a quick discussion.
>
> Thanks,
>
> Jack Arnold
> Acting Assistant Regional Director - Ecological Services
> U.S. Fish and Wildlife Service
> 1875 Century Blvd.
> Atlanta, GA 30345
> 404-679-7311 office
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> ---------- Forwarded message ---------
> From: **Dell, David** <david_dell@fws.gov>
> Date: Fri, May 31, 2019 at 2:32 PM
> Subject: East Collier HCP: IM for a Pause

To: Jack Arnold <jack_arnold@fws.gov>
Cc: Larry Williams <larry_williams@fws.gov>, Roxanna Hinzman <roxanna_hinzman@fws.gov>, Robert Tawes <Robert_Tawes@fws.gov>

Jack: As you and Rob discussed, here's the draft IM. You'll see the pathname at the end -- its in Admin-530.

David Dell
US Fish and Wildlife Service
Southeast Region
HCP and Safe Harbors Coordinator
404/679-7313
david_dell@fws.gov

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<20190531 IM ECPO HCP pause.docx>

--
Mike Oetker
Deputy Regional Director
USFWS, Southeast Region
404-679-4000

--
Acquanetta Reese ¦Executive Assistant to the Regional Director

U.S. Fish and Wildlife Service ¦ Southeast Region

1875 Century Blvd; Suite 400 ¦ Atlanta, Georgia 30345

Phone: 404-679-4000 ¦ **Fax:** 404-679-4006 ¦ **Email:** acquanetta_reese@fws.gov

"We all Die!! The goal isn't to live forever, it is to "create" something that will!" Chuck Palahniuk

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service

Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
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--

Acquanetta Reese ¦Executive Assistant to the Regional Director

U.S. Fish and Wildlife Service ¦ Southeast Region

1875 Century Blvd; Suite 400 ¦ Atlanta, Georgia 30345

Phone: 404-679-4000 ¦ **Fax:** 404-679-4006 ¦ **Email:** acquanetta_reese@fws.gov

"We all Die!! The goal isn't to live forever, it is to "create" something that will!" Chuck Palahniuk

--

Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
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http://www.fws.gov/southeast/
www.fws.gov

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From: Tawes, Robert
To: Phillips, Catherine
Subject: Fwd: DCN: BP034959 - Status of FWS Review of Eastern Collier Property Owners HCP
Date: Monday, June 10, 2019 5:28:19 AM
Attachments: 20190605 IM ECPO final new format.docx

Latest on East Collier Habitat Conservation Plan for your awareness. We have implemented a "pause" in the SO 3355 timeline to work with the applicants on the panther roadway mortality issue. There was a meeting Friday afternoon with the applicants to discuss. Rob
---------- Forwarded message ---------
From: **Arnold, Jack** <jack_arnold@fws.gov>
Date: Sun, Jun 9, 2019 at 9:05 PM
Subject: Fwd: DCN: BP034959 - Status of FWS Review of Eastern Collier Property Owners HCP
To: Rob Tawes <Robert_Tawes@fws.gov>, David Dell <david_dell@fws.gov>, Larry Williams <Larry_Williams@fws.gov>

FYI - the version sent to Director's Office.

Jack Arnold
Acting Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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.

---------- Forwarded message ---------
From: <jennifer_mitchell@fws.gov>
Date: Thu, Jun 6, 2019 at 5:19 AM
Subject: DCN: BP034959 - Status of FWS Review of Eastern Collier Property Owners HCP
To: <guy_schein@fws.gov>, <Jack_Arnold@fws.gov>

Jack and Guy,

Please see attached memo for our file.

Thanks Jennifer

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
www.fws.gov

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USFWS INFORMATION MEMORANDUM

DATE: June 24, 2020

TO: Margaret Everson, Principal Deputy Director, U. S. Fish and Wildlife Service Exercising the Authority of the Director of the U.S. Fish and Wildlife Service

FROM: Leopoldo Miranda, Regional Director, Southeast Region
Telephone #: 404-679-4000

SUBJECT: Status of Fish and Wildlife Service (FWS) Review of Eastern Collier Property Owners (ECPO or Applicants), Collier County, Florida, Habitat Conservation Plan (HCP)

I. STATEMENT OF ISSUE/KEY FACTS

This memorandum is to alert the Department of our placing the Project on "pause" in anticipation of making a subsequent waiver request to the S.O. 3355 timeline requirements. This Endangered Species Act, section 10 incidental take permit application by 11 landowners would authorize incidental take of Florida panther and 18 other species due to development and earth mining over a requested 50-year term.

We have been notified by the applicants (ECPO) that they contacted the Department regarding their desire for additional time around May 13, 2019, and that this request was approved. We are placing the Project on pause, at ECPO's request, to accommodate their review and input into the traffic analysis. This will result in a stronger, more defensible final Agency decision. We plan to pause until a short time after our discussions with ECPO around June 7 to reach consensus, map a new timeline, and then submit a waiver request to the Department to implement the new timeline.

II. BACKGROUND AND FWS POSITION

This project received approval of a waiver request, approved at the Assistant Secretary's level on April 1, 2019. The waiver sought to adjust the Record of Decision (ROD) target date by 60 calendar days from May 29 to July 29, 2019. The purpose of this waiver was to:

a. Accommodate the Applicants' review and revisions to their HCP in response to public comments and our recommendations.
b. Allow the Service to review and finalize the latest revisions to the EIS supplied by the contractor.

Since that previous waiver request, issues have arisen that complicate our planning and review of this project. The traffic analysis has proven to be an important part of our review, and much of what we received from the EIS consultant does not consider important aspects, such as the "internal capture" of traffic within their developments, resulting in less traffic on roads leading to the developments. ECPO is fully engaged in ensuring data quality and consistency with their

proprietary data, not available to the consultant, on traffic volume projections. ECPO is incorporating their information with the consultant's modeling, and expects to have their incorporation and analyses ready to discuss with the Service during a meeting planned for June 7.

We are working closely with the applicants and their consultants to ensure that we fully understand (and narrow the interpretation of) traffic data, and this will inform how we address roadway mortality in accordance with the HCP. Discussions center on the desired number of wildlife highway crossings and their possible locations. Modeling these factors will determine whether we can issue any ITPs, and if so, how solidly we could defend against challenges. We will begin these final discussions on June 7, and will be able to re-map a timeline for completing review of ECPO's HCP, including finalization of the EIS and publication of the ROD shortly thereafter.

As an additional uncertainty, the Seminole Tribe has not responded to our formal consultation under National Historic Preservation Act, Section 106. We have coordinated with the Tribe beginning with initial scoping in March, 2016, and since, but opened formal consultation on February 1, 2019. An information webinar was held with the Tribe on March 29, 2019. We have queried them, and expect a response from the Tribe. They are apparently in staff transition. We have received a formal objection to the project from the Miccosukee Indian Tribe during our formal consultation with them. Their primary concerns center around panther roadway mortality and preservation of historic and cultural resources. We hope to be able to address the former concern through the traffic impact discussions with the applicants, and the latter through enhanced communication with them on future individual projects under the HCP and associated permit.

The Service is fully engaged in concluding our review of ECPO's application, while ensuring that we make a fully defensible decision. This is a top priority project for the Southeast Region, up to 14 field office and 5 regional office staff are working on this project. Except for the furlough, we have, since April 2018, met continuously with ECPO every other week to review progress, settle issues, and exchange information to advance our review.

III. POSITION OF AFFECTED PARTIES/PUBLIC LANDS AFFECTED

ECPO Applicants

The Applicants, as demonstrated by their outreach to the Department, want us to reach a fully defensible decision. ECPO is working with us to ensure we have what we need, and that we are consistent with our assumptions. As expressed in our September 14, 2018, Department Review Team briefing, the Applicants are sensitive to liability for harm to panthers caused by third-party traffic effects.

Corps of Engineers

The Corps of Engineers is a cooperating agency in preparing the EIS for this project. The Service is also negotiating a memorandum of understanding (MOU) to facilitate section 7 consultations, should we issue ITPs, on wetland fill applications made by ECPO landowners covered by the HCP. We have a draft MOU that we are now transmitting to the Corps for their review.

Other Entities

Multiple citizens and environmental groups have provided comments on the HCP and the draft EIS. We fully expect legal challenges against any ITP issuance in this matter.

IV. STATUS UPDATE

The Draft EIS Notice of Availability closed December 3, 2018. From that time through the end of March, 2019, the Applicants and the Service exchanged information and recommendations to respond to public comments, revise the HCP in response to public comments, and collaborated on analyses of highway traffic effects.

V. POTENTIAL ISSUES

We believe we have essentially all the information we need. We need the time to conduct the modeling, and we are engaged in robust internal discussions on how to proceed analyzing traffic effects on the Florida panther. Depending on the findings, this may be contentious to present to ECPO.

VI. TIMELINE/NEXT STEPS

We intend to place this project in "pause" status while we settle the matters described above, and within 30 days of this memorandum, prepare a waiver request for a new timeline to conclude publication of the final EIS and record of decision.

Prepared by: *Leopoldo Miranda, Regional Director, Southeast Region*

☒ **FYI**

From: Phillips, Catherine
To: Tawes, Robert
Cc: Christine Willis
Subject: Re: ITP status update 6/6/2019
Date: Monday, June 10, 2019 5:38:21 AM

Thanks. . . At this point even knowing there are updates is helpful. :)

Catherine T. Phillips, Ph.D.
Assistant Regional Director, Ecological Services
U.S. Fish and Wildlife Service
1875 Century Boulevard
Atlanta, GA 30345
404-679-7085
850-348-6497 (cell)

On Mon, Jun 10, 2019 at 6:25 AM Tawes, Robert <robert_tawes@fws.gov> wrote:

> Catherine, I know you will be getting inundated with email your first few weeks. This is a good update email that Christine Willis pulls together every month or two, helping us keep track of our low level and mid level (EA) HCPs. We only have one EIS level HCP, and that is East Collier County Multispecies HCP.
>
> ---------- Forwarded message ---------
> From: **Willis, Christine** <christine_willis@fws.gov>
> Date: Thu, Jun 6, 2019 at 4:02 PM
> Subject: ITP status update 6/6/2019
> To: William Lynn <william_lynn@fws.gov>, Erin Gawera <erin_gawera@fws.gov>, Lindsay Nester <lindsay_nester@fws.gov>, Heather Hitt <heather_hitt@fws.gov>, Begazo, Alfredo <alfredo_begazo@fws.gov>, Elizabeth Landrum <elizabeth_landrum@fws.gov>, Kristi Yanchis <kristi_yanchis@fws.gov>, Matthias Laschet <matthias_laschet@fws.gov>, Peak, Rebecca <rebecca_peak@fws.gov>, Josh Rowell <josh_rowell@fws.gov>, David Dell <david_dell@fws.gov>, Constance Cassler <constance_cassler@fws.gov>, Jose Rivera <jose_rivera@fws.gov>, Robert Tawes <robert_tawes@fws.gov>, Roxanna Hinzman <roxanna_hinzman@fws.gov>
>
> Folks here is the latest ITP status update for 6/6/2019.
> Please let me know if you have any corrections or updates I missed.
>
> Christine Willis
> U.S. Fish and Wildlife Service
> Energy Coordinator, Division of Environmental Review
> Ecological Services, Southeast Regional Office
> 1875 Century Blvd. Ste. 200
> Atlanta GA 30345
> phone: (404) 679-7310
> fax: (404) 679-7081
> ***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.***

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Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
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http://www.fws.gov/southeast/
www.fws.gov

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From: Arnold, Jack
To: Phillips, Catherine
Subject: are you available to talk?
Date: Friday, June 14, 2019 9:00:25 AM

I just spoke with Rob Tawes - he's been on an internal Collier County HCP call with Vero - they (Rob, Larry, Rox) all agree they want to brief Leo/give him an update/seek his thoughts next week - and before that happens we want to bring you up to speed. I wanted to get your thoughts on when would work best for you - Monday or Tuesday? probably an hour....

Thanks,

Jack Arnold
Deputy Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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: Catherine Phillips
To: Arnold, Jack
Subject: Re: are you available to talk?
Date: Friday, June 14, 2019 9:12:54 AM

Either way works for me. Just grab some time on my calendar. I'll be back at the house in a bit and can call if u want to talk (just got our marriage license).

C

Sent from my iPhone

On Jun 14, 2019, at 10:00 AM, Arnold, Jack <jack_arnold@fws.gov> wrote:

> I just spoke with Rob Tawes - he's been on an internal Collier County HCP call with Vero - they (Rob, Larry, Rox) all agree they want to brief Leo/give him an update/seek his thoughts next week - and before that happens we want to bring you up to speed. I wanted to get your thoughts on when would work best for you - Monday or Tuesday? probably an hour....
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> Thanks,
>
> Jack Arnold
> Deputy Assistant Regional Director - Ecological Services
> U.S. Fish and Wildlife Service
> 1875 Century Blvd.
> Atlanta, GA 30345
> 404-679-7311 office
> 404-679-7081 fax
> 703-789-5620 cell
>
> 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: Arnold, Jack
To: Catherine Phillips
Subject: Re: are you available to talk?
Date: Friday, June 14, 2019 9:48:55 AM

---

when you get a free minute that would be great. you can call my office or cell -either is fine.

thanks,

Jack Arnold
Deputy Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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On Fri, Jun 14, 2019 at 10:12 AM Catherine Phillips <catherine_phillips@fws.gov> wrote:

> Either way works for me. Just grab some time on my calendar. I'll be back at the house in a bit and can call if u want to talk (just got our marriage license).
>
> C
>
> Sent from my iPhone
>
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> >
> > Thanks,
> >
> > Jack Arnold
> > Deputy Assistant Regional Director - Ecological Services
> > U.S. Fish and Wildlife Service
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> > 404-679-7081 fax

703-789-5620 cell

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From:	Tawes, Robert
To:	Laura Maloof
Cc:	Jack Arnold; Acquanetta Reese; Phillips, Catherine; Larry Williams; Roxanna Hinzman
Subject:	Please Secure 10:00 Wednesday Time Slot with Leo - East Collier HCP Update
Date:	Friday, June 14, 2019 10:26:31 AM

Hi Laura, per our discussion please secure the 10:00 -11:00 Wednesday (June 19) time slot with Leo for an update on the East Collier HCP biological opinion and panther roadway mortality analysis. I will defer to Larry and Rox for personnel they would like to invite. From ES it would be Jack, Catherine, David Dell, Jerry Ziewitz, Angela Romito and me.

Thanks! Rob

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
www.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:	Oetker, Michael
To:	laura_maloof@fws.gov
Subject:	Out of the office Re: Invitation: East Collier HCP Update (800-857-6778; 1348665#) @ Wed Jun 19, 2019 10am - 11am (EDT) (michael_oetker@fws.gov)
Date:	Friday, June 14, 2019 10:59:02 AM

I am out of the office and will not be checking email regularly. If you need something immediately, please call the main office at 404-679-4000.

--
Mike Oetker
Deputy Regional Director
USFWS, Southeast Region
404-679-4000

From:	Dell, David
To:	Charles Kelso; Constance Cassler; Shindle, David; Jerry Ziewitz; Mcdonald, Kenneth; Larry Williams; Timothy Binzen; Mott, Vicki; Erin Myers; Heather Hitt; Knutson, Adam; Angela Romito; Catherine Phillips; Kevin Palmer; Kristen Peters; Lindsay Nester; Nikki Price; Robert Tawes; Roxanna Hinzman
Subject:	Re: East Collier HCP: In-Service Update -- June 14 Notes
Date:	Friday, June 14, 2019 1:27:36 PM

Everyone: Please review and supplement/edit/correct my notes at the link. These were important conversations today. Thanks.

David Dell
US Fish and Wildlife Service
Southeast Region
HCP and Safe Harbors Coordinator
404/679-7313
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 Thu, Jun 13, 2019 at 12:42 PM Dell, David <david_dell@fws.gov> wrote:

> Everyone: Please see the draft agenda at: https://drive.google.com/open?id=1mPuO2Na9Fq8oq1buVSQxuU7EsY-_2xXsR1_Th9Xd3f0
>
> Suggestions and additions are welcome. Connie and Rox, the second item is an attempt to flesh out our timeline of deliverables. Jerry, is there anything to add for the non-panther part of the BO?
>
> And, can I start trimming the invitation list for these meetings? It seems that I can now that the BO nears completion.
> Talk to you tomorrow.
>
> David Dell
> US Fish and Wildlife Service
> Southeast Region
> HCP and Safe Harbors Coordinator
> 404/679-7313
> 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.

From:	Tawes, Robert
To:	Larry Williams; Jack Arnold; Dell, David; David Shindle; LeeAnn Kelso; Ziewitz, Jerry; Roxanna Hinzman; Constance Cassler
Cc:	Phillips, Catherine
Subject:	Can We Move RD Briefing on East Collier Tomorrow to 9:30 Eastern?
Date:	Tuesday, June 18, 2019 7:16:37 AM

Acquanetta has asked if we have flexibility to move our briefing with Leo to the 9:30 to 10:30 time slot rather than the 10:00 to 11:00 time slot. This should work for the RO- ES staff as we will be able to wrap up our staff meeting (which starts at 8:30). Wanted to check with the Florida folks. Please let me know as soon as you can. Thanks!

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
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(w) 404/679-7142
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http://www.fws.gov/southeast/
www.fws.gov

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From:	Cassler, Constance
To:	Tawes, Robert
Cc:	Larry Williams; Jack Arnold; Dell, David; David Shindle; LeeAnn Kelso; Ziewitz, Jerry; Roxanna Hinzman; Phillips, Catherine
Subject:	Re: Can We Move RD Briefing on East Collier Tomorrow to 9:30 Eastern?
Date:	Tuesday, June 18, 2019 7:24:04 AM

Works for me

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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On Tue, Jun 18, 2019 at 9:16 AM Tawes, Robert <robert_tawes@fws.gov> wrote:

> Acquanetta has asked if we have flexibility to move our briefing with Leo to the 9:30 to 10:30 time slot rather than the 10:00 to 11:00 time slot. This should work for the RO- ES staff as we will be able to wrap up our staff meeting (which starts at 8:30). Wanted to check with the Florida folks. Please let me know as soon as you can. Thanks!
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> --
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> www.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:	Ziewitz, Jerry
To:	Tawes, Robert
Cc:	Larry Williams; Jack Arnold; Dell, David; David Shindle; LeeAnn Kelso; Roxanna Hinzman; Constance Cassler; Phillips, Catherine
Subject:	Re: Can We Move RD Briefing on East Collier Tomorrow to 9:30 Eastern?
Date:	Tuesday, June 18, 2019 7:24:56 AM

Works for me. I don't have call in numbers yet for either time.

"Good judgment comes from experience. Experience comes from bad judgment."
SecondFortune.com
Lucky Numbers: 10, 28, 20, 12, 1, 29

Jerry Ziewitz
Endangered Species Act Consultation Coordinator
Southeast Region, USFWS
10210 Miccosukee Road
Tallahassee, FL 32309
850-877-6513
jerry_ziewitz@fws.gov

On Tue, Jun 18, 2019 at 9:16 AM Tawes, Robert <robert_tawes@fws.gov> wrote:

> Acquanetta has asked if we have flexibility to move our briefing with Leo to the 9:30 to 10:30 time slot rather than the 10:00 to 11:00 time slot. This should work for the RO- ES staff as we will be able to wrap up our staff meeting (which starts at 8:30). Wanted to check with the Florida folks. Please let me know as soon as you can. Thanks!
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> --
> Rob W. Tawes
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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.*

From:	Dell, David
To:	Charles Kelso; Constance Cassler; Jerry Ziewitz; Mcdonald, Kenneth; Larry Williams; Roxanna Hinzman; Timothy Binzen; Mott, Vicki; Erin Myers; Shindle, David; Angela Romito; Catherine Phillips; Kevin Palmer; Kristen Peters; Nikki Price; Robert Tawes
Subject:	East Collier HCP: Friday"s In-Service Update
Date:	Wednesday, June 26, 2019 5:34:55 AM

Everyone: I intend to hold our regular update this coming Friday, and will broadcast an agenda, probably Thursday morning. I trimmed the invitation list for this meeting, as it seems that the FO folks helping with the BO are essentially finished. If I need to restore somebody, let me know. Thanks.

David Dell
US Fish and Wildlife Service
Southeast Region
HCP and Safe Harbors Coordinator
404/679-7313
david_dell@fws.gov

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From:	Binzen, Timothy
To:	Dell, David
Cc:	Charles Kelso; Constance Cassler; Jerry Ziewitz; Mcdonald, Kenneth; Larry Williams; Roxanna Hinzman; Mott, Vicki; Erin Myers; Shindle, David; Angela Romito; Catherine Phillips; Kevin Palmer; Kristen Peters; Nikki Price; Robert Tawes; Michael Crowley
Subject:	Re: East Collier HCP: Friday"s In-Service Update
Date:	Wednesday, June 26, 2019 8:26:14 AM

Hello David,

I will be away on travel this Friday so will not be able to participate in the call. I will be away on annual leave for the July 12 call, as well. However, I am feeling updated on the Tribal aspect from the email correspondences. If you have any questions in my absence, please contact Michael Crowley michael_crowley@fws.gov

Thanks,
--Tim

On Wed, Jun 26, 2019 at 7:34 AM Dell, David <david_dell@fws.gov> wrote:

> Everyone: I intend to hold our regular update this coming Friday, and will broadcast an agenda, probably Thursday morning. I trimmed the invitation list for this meeting, as it seems that the FO folks helping with the BO are essentially finished. If I need to restore somebody, let me know. Thanks.
>
> David Dell
> US Fish and Wildlife Service
> Southeast Region
> HCP and Safe Harbors Coordinator
> 404/679-7313
> 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.

--
Timothy Binzen
Tribal Liaison (Northeast & Southeast Regions)
U.S. Fish and Wildlife Service
External Affairs
300 Westgate Center Drive
Hadley, MA 01035
Office: (413) 253-8731
Mobile: (413) 800-2071

From:	Tawes, Robert
To:	Jack Arnold; Jeff Weller; Aaron Valenta; Kristi Young; Larry Williams; Michelle Eversen; Guy Schein; Timothy Merritt; Phillips, Catherine
Subject:	Reasonable Certainty of Occurrence Document Coming Tomorrow
Date:	Wednesday, August 7, 2019 1:45:36 PM

Hey everyone. Jerry has made some improvements to the document based on Heath's review, and adjusted some things based on the East Collier experience (related to action area). I'm reviewing the changes and will have it ready for the group tomorrow. Thanks. Rob

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
www.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: Tawes, Robert
To: Phillips, Catherine
Cc: Jack Arnold; Dell, David
Subject: Tomorrow"s Internal East Collier Update Call
Date: Thursday, August 8, 2019 1:21:40 PM

Hi Catherine. To keep you apprised of progress on the HCP, I wanted you to know that every other Friday we have a FWS only update call where we discuss progress of the biological opinion, tribal consultations, NEPA documents, discussions with the applicants, etc. The agenda can be found here https://drive.google.com/open?id=12RbfK8XNzlgTzCf2g-J9ulRklHXd65rZ6AoyeG4a52M . On the intervening Fridays (same time) we have update calls with the applicants, their counsel and the Corps of Engineers. You are welcome to join anytime. Jack and I will not be on tomorrow's call as we are on leave, but Jerry and David will be on. Rob

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
www.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:	Tawes, Robert
To:	Jack Arnold; Pamala Wingrove; Diana Swan-Pinion; Christine Willis; Dean Demarest; Stephen Jackson; Phillips, Catherine; Dell, David; Ziewitz, Jerry; Roxanna Hinzman
Subject:	Fwd: SO 3355 Update
Date:	Thursday, August 15, 2019 7:36:09 AM
Attachments:	2019_0722_ERM10-11_InfrastructureProj_Updated.pdf

Hey everyone. Here is the latest SO 3355 update from HQ. David please see note on updating status of projects in pause in DOI NEPA database (East Collier HCP).

---------- Forwarded message ---------
From: **Blackburn, Scott** <scott_blackburn@fws.gov>
Date: Wed, Aug 14, 2019 at 2:52 PM
Subject: SO 3355 Update
To: Anna-Marie York <anna-marie_york@fws.gov>, Ben Thatcher <ben_thatcher@fws.gov>, Brian Bloodsworth <brian_bloodsworth@fws.gov>, Chellby Kilheffer <chellby_kilheffer@fws.gov>, Dan Cox <Dan_Cox@fws.gov>, Frank Muth <frank_muth@fws.gov>, Johnson, Mike <mike_j_johnson@fws.gov>, Jonathan Reichard <jonathan_reichard@fws.gov>, Kate Freund <kate_freund@fws.gov>, Kim Lambert <kim_lambert@fws.gov>, Laura Noguchi <Laura_Noguchi@fws.gov>, Lori Nordstrom <lori_nordstrom@fws.gov>, Maria Boroja <maria_boroja@fws.gov>, Marty Tuegel <marty_tuegel@fws.gov>, Mary Abrams <mary_abrams@fws.gov>, Melissa Burns <melissa_burns@fws.gov>, Mitch Ellis <mitch_ellis@fws.gov>, Patricia Roberson <patricia_roberson@fws.gov>, Paul VanRyzin <paul_vanryzin@fws.gov>, Rachel London <Rachel_London@fws.gov>, Robert Tawes <robert_tawes@fws.gov>, Schmerfeld, John <john_schmerfeld@fws.gov>, Scott Blackburn <scott_blackburn@fws.gov>, Shannon Smith <shannon_smith@fws.gov>, Trish Adams <trish_adams@fws.gov>, Vicki Finn <vicki_finn@fws.gov>, Wagener, Ella <ella_wagener@fws.gov>, Karen Myers <karen_myers@fws.gov>
Cc: Shultz, Gina <Gina_Shultz@fws.gov>, Craig Aubrey <craig_aubrey@fws.gov>

Greetings,

Please find below the highlights from the August 6th monthly meeting with Assistant Deputy Secretary, Jim Cason.

DOI NEPA Database: Action required

- Continue to review the DOI Database to ensure it accurately reflects the status of your EISs. Jim Cason underscored, again, the importance of meeting timelines and updating the DOI Database, including costs. He has indicated he will will be directly calling project leaders for projects on the "red report."
- When seeking waivers or pausing projects (or making any changes) in the Database, include an updated description of project status in the comment fields to explain these changes.

Land Management Plans:

- Bureaus were asked about the status of their land management plans. The Service reported that updates to CCPs have not been affected by S.O. 3355.

For the next meeting, bureaus were asked to provide more land management planning information. The request for the Service is: (1) How many NWRs have a CCP, and (2) How many of those CCPs are older than 15 years.

OFD/MIP Projects:

- ERM 10-11 guidance for infrastructure projects has been updated to indicate that an "authorization" for the purposes of OFD/MIP includes a consultation requirement (informal or formal) under the Endangered Species Act. (See footnote 3 in the attached document)

Fire Management:

- Jim Cason was concerned that more money is spent on fire suppression than on fire prevention. He indicated bureaus should ensure their land management plans reference any previously approved fire management plans, including day to day actions taken to mitigate risk of fire.

Community of Practice:

- Future Community of Practice newsletters have been put on hold due to lack of capacity at OEPC. Acknowledgement of projects meeting time/page limits will continue.

--
Scott Blackburn
National NEPA Coordinator
U.S. Fish and Wildlife Service Headquarters
5275 Leesburg Pike
Falls Church, VA 22041-3803
703-358-1857
scott_blackburn@fws.gov

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
Southeast Regional Office
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
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United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

JUL 18 2019

9040.1b

PEP - ENVIRONMENTAL REVIEW MEMORANDUM NO. ERM 10-11

To: Heads of Bureaus and Offices

From: Michaela E. Noble, Director
Office of Environmental Policy and Compliance

Subject: Determining the Applicable Environmental Review Framework for Infrastructure Projects

PURPOSE

The purpose of this environmental review memorandum (ERM) is to provide guidance to bureaus and offices (Bureau) to identify whether a proposed action falls under the framework of (1) Title 41 of the Fixing America's Surface Transportation Act (FAST-41) (42 U.S.C. § 4370m), (2) Executive Order (E.O.) 13807, *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects*, or (3) Secretarial Order (S.O.) 3355, *Streamlining National Environmental Policy Act Reviews and Implementation of Executive Order 13807*, for preparing project timelines, environmental impacts statements (EIS), and reporting requirements.

BACKGROUND

The Office of Environmental Policy and Compliance (OEPC) provides guidance for the Department of the Interior's (Department) compliance with existing environmental requirements, including statutes and Executive orders, under 112 DM 4. This ERM provides guidance to the Bureaus on determining the applicability of the three listed environmental review frameworks for infrastructure projects and the associated database inputs in the National Environmental Policy Act (NEPA) and Permit Tracking Database (Database) (see ERM 10-09, *Entering Information into the Department National Environmental Policy Act (NEPA) and Permit Tracking Database*).

GUIDANCE

The following guidance provides a series of questions that serve as a checklist to help the Department's NEPA practitioners and managers determine whether one or more environmental review framework, among FAST-41, E.O. 13807, and S.O. 3355, applies to a proposed action.[1]

[1] FAST-41, E.O. 13807, and S.O. 3355 each have other requirements and processes to follow. Please refer to the appropriate guidance for additional information.

Does the FAST-41 Framework Apply?

A proposed action is a "covered project" under FAST-41 when Bureau staff can answer yes to all of the following questions:

1. Did the project proponent submit a FAST-41 Initiation Notice?[2]

2. Does the proposed action require an investment of over $200 million, or require authorization[3] from more than two Federal agencies (which includes another Bureau) to proceed with construction of the project?

3. Is the proposed action an infrastructure construction project[4] that is included in a sector and project type under FAST-41, or has the Federal Permitting and Improvement Steering Council (FPISC) designated it a "covered project" under FAST-41 separately from the criteria identified?[5]

Does the E.O. 13807 and OFD Framework Apply?

A proposed action[6] is a "major infrastructure project" under E.O. 13807 when Bureau staff can answer yes to the following questions:

1. Was the EIS NOI issued on or after August 15, 2017?[7]

2. Are multiple Federal agency (which includes another Bureau) authorizations[8] needed to proceed with construction of the project?

3. Has the project sponsor identified the reasonable availability of funds sufficient to complete the project?

---

[2] Proponent initiation is the dispositive component of this analysis because a proposed action cannot be classified as FAST-41 without it. Each additional consideration listed for determining whether the FAST-41 framework applies is intended to provide context to ensure that the proposed action was properly identified. For more information, visit the FAST-41 Permitting Dashboard: https://www.permits.performance.gov/tools/becoming-fast-41-covered-project.
[3] For applicability determinations, an authorization is when another Federal agency needs to make a decision to allow the project to be constructed or there is a consultation requirement under the Endangered Species Act. This criterion is different from types of cooperating agencies under NEPA which is jurisdiction by law or expertise.
[4] See Attachment 1 for the full list of covered FAST-41 sectors and project types.
[5] Note: A mining project alone is not considered an infrastructure project. If the mining project includes a sector component that is covered by the FAST Act, then that element would need to be considered in determining if the overall project could be covered.
[6] See Attachment 1 for the full list of covered E.O. 13807 sectors and project types.
[7] If FAST-41 is applicable, and the NOI was issued on or after August 15, 2017, then it is a FAST-41 project and should be reported as such. E.O. 13807 designates additional projects with NOIs after August 15, 2017 that meet the criteria for E.O 13807 designation, as reflected in the underlined and bolded text in Attachment 1 for sector and project type, which, if applicable, would need to be looked at for OFD applicability.
[8] See Footnote 3.

4. Will a single Record of Decision (ROD) be issued? If not, do any of the following exceptions to issuing a single ROD by all authorizing agencies apply?

    a. The project sponsor requests that agencies issue separate NEPA documents;

    b. The NEPA obligations of a cooperating or participating agency have already been satisfied; or

    c. The lead agency determines that a single ROD would not best promote completion of the project's environmental review and authorization process.

Does the S.O. 3355 Framework Apply?

If a DOI Bureau is a lead or-co-lead agency, then the S.O. 3355 environmental review framework applies.

Can More Than One Framework Apply?

1. If FAST-41 and E.O. 13807 both apply, the FAST-41 requirements take precedence and the proposed action should be uploaded into the Database exclusively as a FAST-41 project.

2. The S.O. 3355 EIS page guidelines apply when DOI is the lead, or co-lead, agency for both FAST-41 and E.O. 13807 projects, unless a page waiver is obtained. However, FAST-41 and E.O. 13807 projects are subject to E.O. 13807's two-year timeline, as opposed to S.O. 3355's one-year timeline.

NEPA PROCESSES ASSOCIATED WITH EACH FRAMEWORK

FAST-41, E.O. 13807, and S.O. 3355 are associated with different NEPA processes:

- FAST-41 applies to all covered infrastructure projects requiring an EIS and could apply to some Environmental Assessments (EA);[9]

- E.O. 13807 applies only to major infrastructure projects requiring an EIS;

[9] An EA is unlikely to regularly arise within the context of an infrastructure project that requires more than two Federal agency authorizations and that FPISC designates a "covered project" under FAST-41.

- S.O. 3355 and its accompanying guidance apply to all Department proposed actions requiring an EIS or an EA, including proposed non-infrastructure projects.

DEFINITIONS

The Department uses the definitions in E.O. 13807 and FAST-41 to determine the infrastructure projects to which they apply. In E.O. 13807, "infrastructure project", "major infrastructure project", and "authorization" are defined, and in the FAST Act, "covered project" is defined.

The definitions are as follows:

Infrastructure project – A project to develop public and private physical assets that are designed to provide or support services to the general public in the sectors contained in the Attachment 1 or any other sector as determined by a majority vote of the FPISC.

Major infrastructure project – An infrastructure project that requires: (1) multiple Federal agency authorizations to proceed with construction, (2) the lead Federal agency to determine to prepare an EIS under the NEPA, and (3) the project proponent has identified the reasonable availability of funds sufficient to complete the project.

Authorization – Any license, permit, approval, finding, determination, or other administrative decision issued by a Federal department or agency that is required or authorized under Federal law in order to site, construct, reconstruct, or commence operations of an infrastructure project, including any authorization under FAST-41, 42 U.S.C. 4370m(3).

Covered Project – Any activity in the United States that requires authorization or environmental review by a Federal agency involving construction of infrastructure for renewable or conventional energy production, electricity transmission, surface transportation, aviation, ports and waterways, water resource projects, broadband, pipelines, manufacturing, or any other sector as determined by a majority vote of FPISC.

Facility or structure construction is a needed project component to be considered an infrastructure project under the FAST-41 and E.O. 13807. The definitions have overlapping criteria but can be different in relation to project applicability.

GENERAL

This memorandum is a revised ERM 10-11 and supersedes ERM 10-11 issued on August 9, 2018.

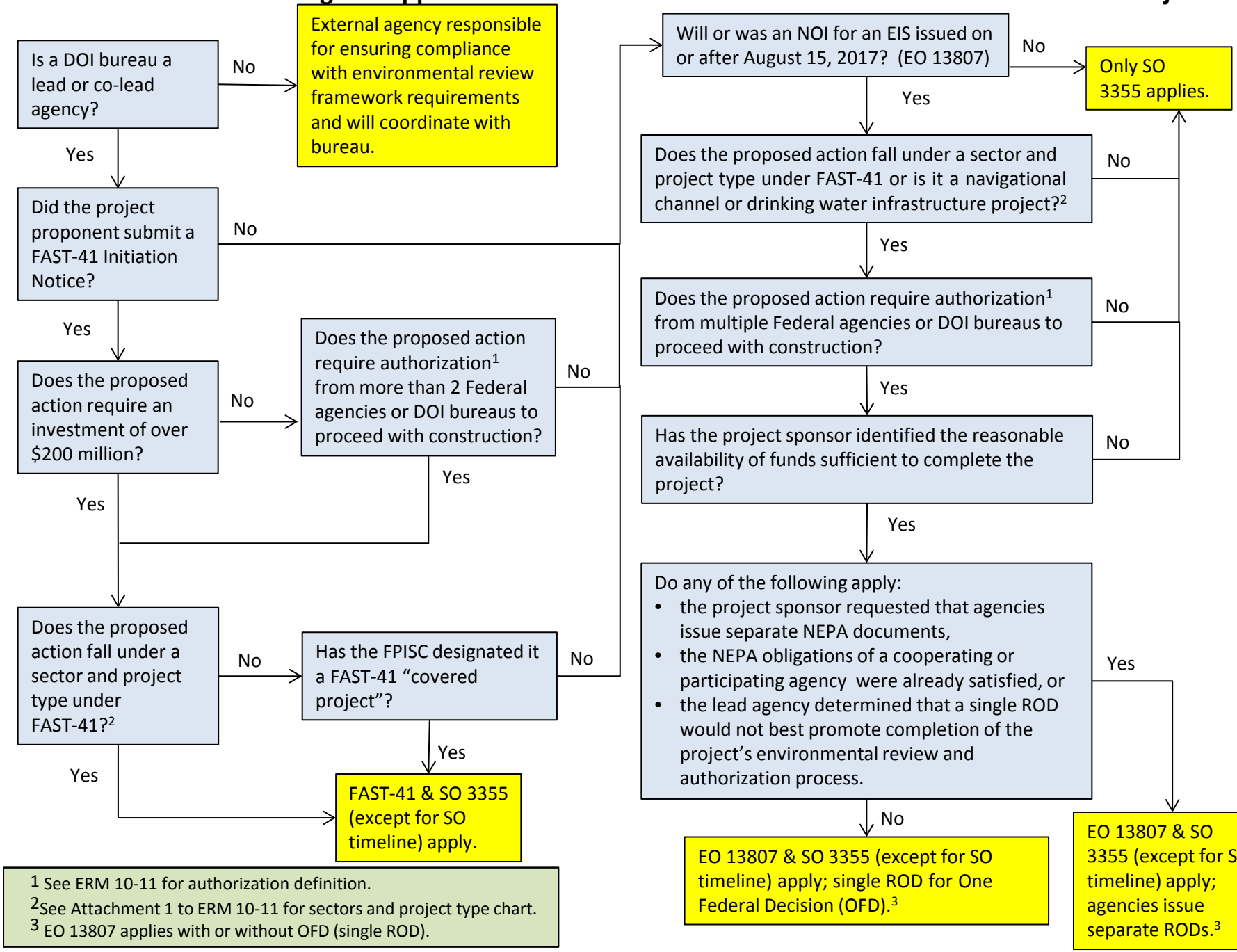
This memorandum establishes internal Department guidelines. It does not create any legal rights, substantive or procedural, enforceable at law by any party.

Attachment

FAST-41 and E.O. 13807 Sectors	FAST-41 or E.O. 13807 Project Type*
Renewable Energy Production and Generation	Biomass Energy Production/Generation
	Federal Hydropower (Federally owned/operated)
	Non-Federal Hydropower - Licenses (**hydro**) (including Non-Federal Marine and Hydrokinetic Projects)
	Non-Federal Hydropower – Leases (**hydro**)
	Wind: Federal Offshore; Other Than Federal Offshore
	Hydro-kinetic - Lease on Outer Continental Shelf
	Solar
	Geothermal
	Energy Storage
Conventional Energy Production and Generation	Offshore Oil & Gas (**fossil**)
	Land-based Oil & Gas – Production/Extraction (**fossil**)
	Fossil Fuel Power Plant
	Nuclear Power Plant – Construction Permit; Combined (construction and operating) License
	"Rural" Energy Projects (under Rural Utilities Service)
Electricity Transmission	Electricity Transmission
	"Rural" Transmission (under Rural Utilities Service)
Surface Transportation	Highways/Roads
	Railroads
	Public Transportation (**transit**)
	Bridges
	Weight stations
	Freight
	Ports of Entry (construction/rehabilitation of rail, water port, or road located at a state or U.S. entry point)
Aviation	Airport Development Projects (Aviation programs, commerce and safety, airport development and noise, financing, public airports)
	Air Traffic Facility Replacement or Modernization
	Commercial Space Launch Site Operator License
Ports and Waterways	Liquefied Natural Gas Terminal Facilities – Offshore
	Port expansion or improvement undertakings or projects; (**including navigational channels**)
Broadband	Land-based, Non-Rural Broadband Infrastructure (**Internet**)
	Rural Broadband Infrastructure (**Internet**)
	Offshore Broadband Infrastructure (**Internet**) (e.g., cable landing station)
Manufacturing	New facilities or expansions involving construction
Pipelines	Interstate Natural Gas Pipelines
	Liquefied Natural Gas Terminal Facilities (Onshore or in State Water) and associated Natural Gas Pipelines
	Land-based Oil & Gas – Production/Extraction
Water Resources	Infrastructure Restoration Activities
	Irrigation and related water supply projects
	Other Water Resource Projects (including restoration activities; (**sewer**) waste/storm-water infrastructure; Flood Risk Management; Navigation; **drinking water infrastructure**)

***FAST-41 does not include transportation projects under 23 USC 139, water projects under 33 USC 2348, or Presidential Permit applications. E.O. 13807 Major infrastructure projects include all FAST-41 sector and project types to develop public and private physical assets and provide or support the general public plus the following two specific projects types: navigational channels and drinking water infrastructure projects. Both FAST-41 and E.O. 13807 include any other infrastructure construction project, EISs for E.O. 13807, or any NEPA process under FAST-41, as determined by the Federal Permitting Infrastructure Steering Council (FPISC). Additional E.O. 13807 language not included in FAST-41 or FPISC document are bolded and underlined in the table above.**

Flowchart for Determining the Applicable Environmental Review Framework for Infrastructure Projects



[1] See ERM 10-11 for authorization definition.
[2] See Attachment 1 to ERM 10-11 for sectors and project type chart.
[3] EO 13807 applies with or without OFD (single ROD).

From: Larry Williams
To: Acquanetta Reese; Laura Maloof
Cc: LeeAnn Kelso; Catherine Phillips
Subject: Is Everglades Conference on Leo's calendar?
Date: Wednesday, August 28, 2019 9:24:53 AM

Acquanetta, Laura,
I've been talking to Leo about a trip to south Florida. He wants to do it and asked that I coordinate with you. I'm thinking perhaps he's already scheduled to attend the Everglades Coalition Conference, January 9-12, 2020. Is that on his calendar? If not, would it be possible to get that on his calendar? If he can make it to that conference we would adjust the itinerary to include visits to some other projects (Lake O, East Collier HCP, etc).

Thanks

Larry

Sent from my iPhone

From: Maloof, Laura
To: Larry Williams
Cc: Acquanetta Reese; LeeAnn Kelso; Catherine Phillips
Subject: Re: Is Everglades Conference on Leo's calendar?
Date: Wednesday, August 28, 2019 9:40:54 AM

We talked about it yesterday. It is on his calendar and we will be in his nomination to attend.

Laura Maloof
Executive Assistant
U.S. Fish & Wildlife Service
1875 Century Blvd., Suite 400
Atlanta, GA 30345

404-679-4000
404-679-4006 (fax)

On Wed, Aug 28, 2019 at 11:24 AM Larry Williams <larry_williams@fws.gov> wrote:

> Acquanetta, Laura,
> I've been talking to Leo about a trip to south Florida. He wants to do it and asked that I coordinate with you. I'm thinking perhaps he's already scheduled to attend the Everglades Coalition Conference, January 9-12, 2020. Is that on his calendar? If not, would it be possible to get that on his calendar? If he can make it to that conference we would adjust the itinerary to include visits to some other projects (Lake O, East Collier HCP, etc).
>
> Thanks
>
> Larry
>
> Sent from my iPhone

From:	Dell, David
To:	Charles Kelso; Constance Cassler; Turner, Andrew; Johnson, Bruce; Jerry Ziewitz; Mcdonald, Kenneth; Robert Tawes; Tewis, Robert M CIV USARMY CESAJ (US); Holmes, Joshua R CIV USARMY CESAJ (USA); Mott, Vicki; tjones@barroncollier.com; Christian Spilker; dksutton@alicoinc.com; Clements, E. Carter Chandler; Jack Arnold; Catherine Phillips; Kristen Peters; Roxanna Hinzman; Mitch Hutchcraft (mhutchcraft@cclpcitrus.com)
Subject:	East Collier HCP: Update Call Tomorrow
Date:	Thursday, August 29, 2019 11:18:59 AM
Attachments:	20190816 August 30, 2019.docx

Everyone: Please see attached the draft agenda for tomorrow. Hopefully we will make a quorum given the prep for Darien's arrival.

David Dell
US Fish and Wildlife Service
South Atlantic - Gulf Region
HCP and Safe Harbors Coordinator
404/679-7313
david_dell@fws.gov

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August 30, 2019

866-763-5944, code# 7667212

East Collier County MSHCP Update Call

Present: FWS:

ECPO:

ECPO Consultants and Counsel:

Corps of Engineers:

DOI SOL:

Topics:

- Section 7/404 MOU

.

- Tribal consultations
    - Comments received from Seminoles August 12, still have these under review
        - We will develop a formal reply
        - We are sending the Tribe a short acknowledgement letter while we develop our formal reply.

    - Formal reply to Miccosukee mailed June 25 -- follow-up e-mail copy to staff a week later.
        - Still no news from the Miccosukee.
- EIS
    - Connie and David (mostly Connie) are making progress on comment responses.

- SO 3355 timeline
    - We remain on pause.

- Status of BO
    - We have complete drafts for all chapters except for the panther.
    - Jerry continues a chapter by chapter review for consistency of analyses.
    -

- FOIA

- New regulations published August 27
    - Rob attends a national seminar next week for Department's rollout to agency.

From: Dell, David
To: Charles Kelso; Constance Cassler; Shindle, David; Jerry Ziewitz; Mcdonald, Kenneth; Warren, Ken; Kristen Peters; Kevin Palmer; Larry Williams; Catherine Phillips; Roxanna Hinzman; Mott, Vicki; Robert Tawes; Jack Arnold
Subject: East Collier HCP: New Applicant
Date: Friday, September 6, 2019 9:28:22 AM

Everyone: Just spoke to ECPO's consultant, Bruce Johnson. They have decided, at the advice of their counsel, to proceed with submitting a new application by the new owner of lands formerly owned by Collier Enterprises (Christian Spilker). They understand the complications this imposes, but also see it as the cleanest, strongest way to proceed. They are willing to carry their message to the Department as necessary. [Background, Collier Enterprises just recently sold 5-6,000 acres of land previously leased to the buyer. This is mostly on the west side of the HCP plan area.]

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Concerning the addendum. Bruce hopes to transmit that by Tuesday. He is in the field much of next week, but will make himself available in the evenings if needed. He wants to expedite our conversation at next Friday's Update to reach agreement on the addendum and its conservation commitments.

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From:	Ziewitz, Jerry
To:	Dell, David
Cc:	Charles Kelso; Constance Cassler; Shindle, David; Mcdonald, Kenneth; Warren, Ken; Kristen Peters; Kevin Palmer; Larry Williams; Catherine Phillips; Roxanna Hinzman; Mott, Vicki; Robert Tawes; Jack Arnold
Subject:	Re: East Collier HCP: New Applicant
Date:	Friday, September 6, 2019 9:40:28 AM

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Lucky Numbers: 10, 28, 20, 12, 1, 29

Jerry Ziewitz
Endangered Species Act Consultation Coordinator
Southeast Region, USFWS
10210 Miccosukee Road
Tallahassee, FL 32309
850-877-6513
jerry_ziewitz@fws.gov

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david_dell@fws.gov

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From: Arnold, Jack
To: Dell, David
Cc: Charles Kelso; Constance Cassler; Shindle, David; Jerry Ziewitz; Mcdonald, Kenneth; Warren, Ken; Kristen Peters; Kevin Palmer; Larry Williams; Catherine Phillips; Roxanna Hinzman; Mott, Vicki; Robert Tawes
Subject: Re: East Collier HCP: New Applicant
Date: Friday, September 6, 2019 9:41:47 AM

Thanks David.

Jack Arnold
Deputy Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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To:	Ziewitz, Jerry
Cc:	Charles Kelso; Constance Cassler; Shindle, David; Mcdonald, Kenneth; Warren, Ken; Kristen Peters; Kevin Palmer; Larry Williams; Catherine Phillips; Roxanna Hinzman; Mott, Vicki; Robert Tawes; Jack Arnold
Subject:	Re: East Collier HCP: New Applicant
Date:	Friday, September 6, 2019 10:13:57 AM

Jerry: Agreed concerning the BO, but the land-use designations would be retained only by keeping them part of an active permit application. As Bruce points out, relabeling the sold lands as "eligible" reduces the development cap. Worse, it removes some acreage of Preserve lands that would no longer be considered in their mitigation plan. They would have to redesign the entire conservation plan to cover the reduced development cap.

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From:	Cassler, Constance
To:	Dell, David
Cc:	Ziewitz, Jerry; Charles Kelso; Shindle, David; Mcdonald, Kenneth; Warren, Ken; Kristen Peters; Kevin Palmer; Larry Williams; Catherine Phillips; Roxanna Hinzman; Mott, Vicki; Robert Tawes; Jack Arnold
Subject:	Re: East Collier HCP: New Applicant
Date:	Monday, September 9, 2019 7:44:19 AM

Hi David,

I assume this also means we will receive comments again, but I want to confirm. If so, the Service will not get any help from AECOM in helping with responses or anything we need to do to update the EIS. They have used all of their contract money and the Scope doesn't cover this extra work. We will have to discuss if we want to approach ECPO to ask for an amended scope and the money to pay AECOM for extra work.

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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Visit our web site at www.fws.gov/verobeach/

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From:	Dell, David
To:	Cassler, Constance
Cc:	Ziewitz, Jerry; Charles Kelso; Shindle, David; Mcdonald, Kenneth; Warren, Ken; Kristen Peters; Kevin Palmer; Larry Williams; Catherine Phillips; Roxanna Hinzman; Mott, Vicki; Robert Tawes; Jack Arnold
Subject:	Re: East Collier HCP: New Applicant
Date:	Monday, September 9, 2019 7:51:07 AM

I'm proposing to advertise the NOA for 30 days, but not make any new versions of the EIS and HCP available. I alerted Trish Adams in HQ about this situation. She concurs in this approach, but we will want to discuss with Solicitors to ensure we don't cause APA problems. While we won't be able to avoid having new commentors, we can focus the NOA on the new application based on the previously advertised documents.

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US Fish and Wildlife Service
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On Mon, Sep 9, 2019 at 9:44 AM Cassler, Constance <constance_cassler@fws.gov> wrote:

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From: Tawes, Robert
To: Jack Arnold; Phillips, Catherine
Subject: Fwd: Proposed villages in rural Collier draw concerns from environmentalists
Date: Monday, September 9, 2019 10:53:11 AM

FYI
---------- Forwarded message ---------
From: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>
Date: Mon, Sep 9, 2019 at 12:44 PM
Subject: Re: Proposed villages in rural Collier draw concerns from environmentalists
To: Cassler, Constance <constance_cassler@fws.gov>
Cc: Dell, David <david_dell@fws.gov>, Larry Williams <larry_williams@fws.gov>, Roxanna Hinzman <roxanna_hinzman@fws.gov>, Robert Tawes <Robert_Tawes@fws.gov>, David Shindle <david_shindle@fws.gov>, Charles Kelso <charles_kelso@fws.gov>, Jerry Ziewitz <jerry_ziewitz@fws.gov>

To second Connie, the change in traffic volume shifting from towns to villages could be substantial. Towns like Ave Maria have upwards of 40% trip capture. Villages are likely to have nearly none. Additionally, another issue with the movement away from building towns like Ave Maria to building smaller villages is the estimated rate of monetization for the Marinelli Fund. Smaller villages will fill the fund more slowly, meaning it will take longer to implement conservation measures like wildlife crossings...even while the magnitude of traffic impacts to panthers are expected to increase.

On Mon, Sep 9, 2019 at 11:34 AM Cassler, Constance <constance_cassler@fws.gov> wrote:

> David,
>
> I'm not a modeler, so I can't say if it makes sense to tweak the sensitivity analysis to cover this change. My goal was to keep everyone informed about changes that are happening and stimulate discussion. It seems by analyzing the town concept, we analyzed the best case scenario for the panther and we need to keep in mind that we are now seeing that this may not be the outcome of the HCP if the permits are granted. We are ready to discuss this if and when anyone wants to talk about it.
>
> Connie
>
> Constance L. Cassler, Ph.D.
> Supervisory Fish and Wildlife Biologist
> U.S. Fish and Wildlife Service
> 1339 20th Street
> Vero Beach, Florida 32960
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> On Mon, Sep 9, 2019 at 11:10 AM Dell, David <david_dell@fws.gov> wrote:
>
> > Connie: This may be worth discussion, but how much of a change is this? While we use Ava Maria as our best data, the HCP allows for smaller developments. It seems that our sensitivity analysis for model inputs could be tweaked to cover an appropriate range of internal capture rates. Besides, we have not reached full concurrence on the traffic modeling as it is.
> >
> > David Dell
> > US Fish and Wildlife Service
> > South Atlantic - Gulf Region
> > HCP and Safe Harbors Coordinator
> > 404/679-7313
> > david_dell@fws.gov
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> > On Mon, Sep 9, 2019 at 10:22 AM Cassler, Constance <constance_cassler@fws.gov> wrote:
> >
> > > Good Morning,
> > >
> > > I'm sorr for multiple emails this morning, but want to make people aware of our thoughts as we are thinking more about what we are seeing in the news. News articles and Collier County applications indicate that a switch is occurring from the concept of towns to the concept of smaller villages in at least part of the ECMSHCP area. This is problematic in that our traffic analysis was based on internal trip capture from a town, which is higher than that expecte from villages taking its place. Therefore, there would be more vehicle trips expected between villages and larger cities to access needed services not included in the village concept. This in turn relates to how many vehicle/panther collisions we may anticipate in the future. I think we should discuss this before we talk with ECPO on Friday and am willing to set up a meeting.
> > >
> > > Please let me know if you agree we should meet before Friday.
> > >
> > > Thank you,
> > >
> > > Connie
> > >
> > > Constance L. Cassler, Ph.D.

Supervisory Fish and Wildlife Biologist
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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: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>
Date: Mon, Sep 9, 2019 at 9:45 AM
Subject: Re: Proposed villages in rural Collier draw concerns from environmentalists
To: Shindle, David <david_shindle@fws.gov>
Cc: Constance Cassler <Constance_Cassler@fws.gov>, Kelso, Charles <charles_kelso@fws.gov>, Jerry Ziewitz <jerry_ziewitz@fws.gov>

This is something we need to pay close attention to: our example community for the traffic analysis was Ave Maria. Ave Maria was built as a town rather than a village.
This is important because towns have higher trip capture than villages. The shift from towns to villages means more cars will end up on the roads than we
previously estimated.

Ken

On Mon, Sep 9, 2019 at 9:24 AM Shindle, David <david_shindle@fws.gov> wrote:

Proposed villages in rural Collier draw concerns from environmentalists

Patrick Riley, **Naples Daily News** Published 6:00 a.m. ET Sept. 7, 2019

CLOSE

David Shindle, Florida Panther Coordinator
U.S. Fish and Wildlife Service
South Florida Ecological Services Field Office
12085 State Road 29 S
Immokalee, FL 34142
Desk 239-657-8013
Cell 772-532-7293
david_shindle@fws.gov

Southeast Region Vision: Together, we will connect lands and waters to sustain fish, wildlife and plants by being visionary leaders, bold innovators and trusted partners, working with and for people.

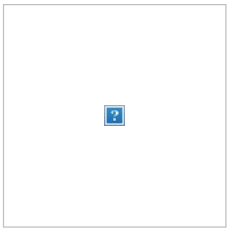
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Growth in rural Collier County could be taking a new form.

Large swaths of undeveloped land east of Golden Gate Estates, including 4,000 acres once slated to be a new town, might be transformed into a group of smaller villages, a move that has drawn concern from some environmentalists.

Arguing that bureaucracy and "economic overreach" by the county had forced its hand, Collier Enterprises earlier this year withdrew its Rural Lands West application for the new town. That project off Oil Well Road, east of Golden Gate Estates, would have included up to 10,000 homes. It could have had up to 1.9 million square feet of commercial development.



A map shows the location of three proposed villages in rural Collier County. *(Photo: Collier County)*

Instead, the company has put together plans for three 1,000-acre villages, stretching from just north of Oil Well Road to east of Golden Gate Boulevard East and potentially adding up to 7,850 homes to the rural area:

- Rivergrass Village — which would be north and south of Oil Well Road and east of Desoto Boulevard North — would allow for up to 2,500 homes. Plans for the village also propose a minimum of 62,500 square feet and a maximum of 80,000 square feet of "neighborhood-scaled retail and office uses" and a minimum of 25,000 square feet for civic, government, and institutional buildings.
- Longwater Village — which would be east of Desoto Boulevard North and south of Oil Well Road — would allow for up to 2,600 residences, 65,000 square feet of retail and office space and 25,000 square feet for civic, governmental, and institutional buildings.
- Bellmar Village — which would be east of Golden Gate Boulevard East — would allow for up to 2,750 housing units, 85,000 square feet of retail and office space and 27,500 square feet for civic, governmental, and institutional buildings.

ADVERTISING

Rivergrass Village is under review by county staff and is expected to come before the Collier County Planning Commission Sept. 19. The county has not yet received any applications for Longwater and Bellmar villages, but pre-application meetings were held last month, according to county records.

A fourth village, called Hyde Park, is also under county review. The proposed 655-acre village, one mile east of Everglades Boulevard on the north side of Oil Well Road, is a project by Neal Communities of SWFL, LLC. It would include up to 1,800 dwellings, 45,000 square feet of retail/office space, and 18,000 square feet for civic uses.

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All four villages sit within the 185,000-acre Rural Lands Stewardship Area, where a voluntary program allows landowners to build towns and villages with shopping centers, schools and businesses in areas with low conservation value using credits earned by giving up their rights to develop more environmentally sensitive land.

The program is now undergoing a review by county officials who are looking to improve it. Commissioners are expected to take it up this fall.

ICYMI: Collier hearing examiner paves the way for Celebration Park parking lot despite neighborhood objections

More: Naples council OKs nearly $600K to plant 384 new trees, palms

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Villages 'easier to plan'

For Collier Enterprises, the move from town to villages was in part motivated by a more compact timeline and a reduction in costs.

Whereas planning for a town looks 20 or 30 years into the future, villages are smaller in scale and plans look closer to 10 years out, said Patrick Utter, senior vice president of real estate for Collier Enterprises.

“It’s much easier to plan the horizon,” he said.

More: New 'towns' pop up on rural land around Florida

That includes planning for roads, water, sewer, parks and emergency services. With Rural Lands West, the company had to “overbuild” certain infrastructure, Utter said. Major four- to six-lane roads, for instance, were needed to serve the project, driving up costs.

“We’re able to design the villages to match the infrastructure that’s already planned,” Utter said.

Aside from the fact that Rivergrass would include a golf course, Collier Enterprises' proposed villages are fairly similar, he said. The new communities will aim to provide goods and services not just to its residents but also to nearby Golden Gate Estates, Utter said.

Homes for Rivergrass are slated to price between $250,000 and $450,000. A projected 43% of homes will be at $300,000 or less, Utter said.

Utter said the company thinks the project will supply the market with a price range "that's hard to find" in Collier.

With the reduction in development footprint, the acreage slated for preservation has also shrunk.

Development of the town would have required preserving more than 12,000 acres of agriculture, wildlife habitat and environmental flowways. It also would have restored more than 900 acres of farm fields to wetlands and habitat.

The proposed villages will set aside 10,000 acres for preservation, Utter said. Some of it will include restoration, but less than what was proposed for the town.

Ninety percent of land slated for development is farm fields, Utter said.

"We're repurposing land that's been farmed for decades," he said.

ICYMI: Without proper permits, Celebration Park parking lot draws concerns from some neighbors

More: Gabriel the pit bull suffered severe burns and broken bones. A Bonita Springs vet and a dog rescue are giving him a second chance.

Conservancy: 'This is an absolute disaster'

The proposed villages have been met with concern from some environmental groups.

Representatives from the Conservancy of Southwest Florida, which opposed Rural Lands West, said all three villages proposed by Collier Enterprises will impact Florida panther habitat, including primary panther habitat and adult breeding habitat.

“These are the areas that best available science says development needs to be directed away from,” said Nicole Johnson, director of environmental policy for the Conservancy. “So environmentally, this is an absolute disaster.”

Johnson said the proposed development is “nothing more than absolute, massive urban sprawl.”

“Instead of having a cohesive new town, you have all of these smaller villages that are being brought in, I assume to avoid the infrastructure that new towns require,” she said.

To Johnson, the projects exemplify the “fundamental failure” of the RLSA. The intent of

the program was to create self-sustaining communities, she said.

“And if less services, infrastructure, mix of communities and uses can be achieved through a series of villages instead of doing an actual town, from a planning standpoint, that’s very concerning,” Johnson said.

For both Rural Lands West and the new proposed villages, the location is inappropriate, said April Olson, a senior environmental planning specialist with the Conservancy.

The Conservancy supports a recommendation made by county staff in a white paper on the RLSA to create an “aggregation rule for villages,” Olson said.

“What they’re saying is if you have a lot of these smaller villages that are adjacent to each other or very close to each other and under a common ownership, then … that project should apply to town standards, the stricter standards for towns,” she said.

Less preservation, not as quickly

Although Rural Lands West wasn’t perfect, said Brad Cornell, Southwest Florida policy associate for Audubon of the Western Everglades and Audubon Florida, it had more “self-sustaining urban features” and would have leveraged more conservation and restoration benefits.

“We’re not getting as many acres and we’re not getting them as quickly as we would have,” he said.

Cornell said Audubon does not support Belmar Village because it is too close to the Florida Panther National Wildlife Refuge, but he said the other two villages will generate “good conservation benefits.”

“It’s just not as good as it could’ve been,” he said.

ICYMI: Trump administration sets forth changes to Endangered Species Act

Meredith Budd, Southwest Florida field representative for the Florida Wildlife Federation, said the newly proposed villages also highlight the importance of moving forward with the county’s review of the RLSA.

Although there has been broad agreement that the credit system should be recalibrated to make sure more credits are needed for development — thereby preserving or restoring more land — none of the proposed changes have been implemented, she said.

The new villages will presumably be grandfathered into the existing credit system, Budd said.

She agreed that Belmar Village’s proximity to the Florida Panther National Wildlife Refuge is problematic.

Not only would it cause more wildlife-human conflict, Budd said, but it would also create a potential problem with conducting prescribed burns with homes that close to the refuge.

“It presents a real challenge,” she said.

Connect with the reporter at patrick.riley@naplesnews.com or on Twitter @PatJRiley.

--
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

--
Kenneth McDonald
Fish & Wildlife Biologist
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Energy and persistence will conquer all things

- Benjamin Franklin

--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
South Atlantic-Gulf & Mississippi-Basin Regions
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
www.fws.gov

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From:	Hewitt, Roy
To:	Warren, Ken; Constance Cassler; Palmer, Kevin; Catherine Phillips; Romito, Angela; Nikki Price; David Shindle; Vicki Mott; Erin Myers; Kelso, Charles; Robert Tawes; Jerry Ziewitz; Larry Williams; kenneth_mcdonald@fws.gov; Hinzman, Roxanna; Kristen Peters; Michael Crowley; David Dell; Timothy Binzen; Jack Arnold
Subject:	East Collier In-Service Update @ Fri, Sep 20, 2019 9:00am – 10:00am (GMT-04)
Date:	Friday, September 20, 2019 7:27:31 AM

Hi all,

Here's the link the to Google -> Microsoft transition sharepoint site. If you have a specific question you can submit it on the ask a question page. You'll receive a notification when you get a response from the transition team.

Thanks for your time today and have a great weekend,
Roy

Roy Hewitt
U.S. Fish & Wildlife Service
Regional Web Developer
fws.gov/southeast
South Atlantic-Gulf & Mississippi-Basin
1875 Century Boulevard
Atlanta, GA 30345
Phone: (404) 679-7306
Mobile: (678) 575-7778

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From:	Tawes, Robert
To:	Miranda, Leopoldo
Cc:	Michael Oetker; Jack Arnold; Larry Williams; Roxanna Hinzman; Dell, David; Constance Cassler; Timothy Binzen; Kevin Palmer
Subject:	East Collier HCP: Summary Information Outlining Formal Consultation with Miccosukee Tribe
Date:	Friday, September 20, 2019 12:17:18 PM
Attachments:	20190920 East Collier Miccosukee Consultation Brief.docx

Hi Leo,

As requested, we have compiled summary information regarding our consultation with the Miccosukee tribe on the proposed East Collier County, FL, HCP. We first interacted with the Tribe through the scoping period, in Spring of 2016, and initiated formal consultation on December 11, 2018. We have coordinated closely with Regional Tribal Liaison Tim Binzen and the South Florida Field Office's Tribal Liaison Kevin Palmer throughout the consultation process. On June 25, 2019, we provided the Tribe with a detailed response to their objection letter, and have maintained contact with them since. The attachment contains more details. 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
South Atlantic-Gulf & Mississippi-Basin Regions
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
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Miccosukee Tribe of Indians
Synopsis of Formal Consultation
Concerning the Eastern Collier Property Owners
Multi-Species Habitat Conservation Plan

- The Service invited the Tribe, via individual letter, to provide comments regarding the notice of intent to prepare an environmental impact statement (EIS) during the 30-day scoping period from March 25, 2016, through April 25, 2016.
- The Service alerted the Tribe individually of the 45-day comment period from October 18, 2018, through December 3, 2018, on the habitat conservation plan (HCP) and draft EIS.
- On December 11, 2018, the Service initiated formal consultation with the Tribe, with State Supervisor's signature.
- On March 27, 2019, the Service provided the Tribe with a consultation meeting (webinar and teleconference) to provide an update on the status of the draft EIS, HCP, and the review process.
- The Tribe transmitted their formal objection letter April 2, 2019.
- April 12, 2019, Field Supervisor e-mailed acknowledgement of Tribe's objection letter and asked whether the Tribe objected to release of their April 2, letter to the East Collier HCP proponents.
- April 17, 2019, Tribe replies via e-mail that they do object to such release.
- Formal acknowledgement of April 2, letter sent April 29, 2019, with Regional Director's signature.
- May 21, 2019, East Collier HCP proponents submit FOIA request for Tribe consultation documents.
- Formal reply to objection sent June 25, 2019, with Regional Director's signature. Contains our responses to issues and questions raised, proposes a solution to address cultural resource concerns, informs them of HCP proponents' FOIA request, and that we would not be able to withhold consultation documents.
- July 2, 2019, Service staff forwarded formal reply to Miccosukee staff via email to make sure staff the Service Field Office regularly works with are aware of the letter.
- July 26, 2019, Regional Tribal Liaison sends e-mail to Miccosukee staff asking whether the Tribe will be offering comments on the Service's formal reply letter of June 25, 2019, and asking whether the Tribe is interested in any follow-up discussion at this time, as the consultation process continues. The Tribe does not respond.
- August 9, 2019, Regional Tribal Liaison sends another e-mail to Miccosukee staff, again asking whether the Tribe will be offering comments on the Service's formal reply letter of June 25, 2019, and asking whether the Tribe is interested in any follow-up discussion. The Tribe does not respond.

From: Oetker, Michael
To: robert_tawes@fws.gov
Subject: Out of the office Re: East Collier HCP: Summary Information Outlining Formal Consultation with Miccosukee Tribe
Date: Friday, September 20, 2019 12:22:22 PM

I am out of the office and will not be checking email regularly. If you need something immediately, please call the main office at 404-679-4000.

--
Mike Oetker
Deputy Regional Director
U.S. Fish and Wildlife Service
South Atlantic-Gulf and Mississippi Basin Unified Regions
404-679-4000

From:	Dell, David
To:	Tawes, Robert
Cc:	Miranda, Leopoldo; Michael Oetker; Jack Arnold; Larry Williams; Roxanna Hinzman; Constance Cassler; Timothy Binzen; Kevin Palmer
Subject:	Re: East Collier HCP: Summary Information Outlining Formal Consultation with Miccosukee Tribe
Date:	Friday, September 20, 2019 1:00:10 PM

Everyone: Also, we have been consulting with the Seminole Tribe of Florida since 2016 jst as for the Miccosukee.. We got caught by the furlough, so our formal consultation did not initiate until February 1, 2019. We conducted an information webinar and teleconference for the Seminoles the same week as for the Miccosukee. We did not receive comments from the Seminoles until August 12, 2019. We acknowledged their comments on September 9, 2019, and we are now preparing a formal reply to them.

David Dell
US Fish and Wildlife Service
South Atlantic - Gulf and Mississippi Basin
Unified Regions
HCP and Safe Harbors Coordinator
404/679-7313
david_dell@fws.gov

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On Fri, Sep 20, 2019 at 2:17 PM Tawes, Robert <robert_tawes@fws.gov> wrote:

> Hi Leo,
>
> As requested, we have compiled summary information regarding our consultation with the Miccosukee tribe on the proposed East Collier County, FL, HCP. We first interacted with the Tribe through the scoping period, in Spring of 2016, and initiated formal consultation on December 11, 2018. We have coordinated closely with Regional Tribal Liaison Tim Binzen and the South Florida Field Office's Tribal Liaison Kevin Palmer throughout the consultation process. On June 25, 2019, we provided the Tribe with a detailed response to their objection letter, and have maintained contact with them since. The attachment contains more details. 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
> South Atlantic-Gulf & Mississippi-Basin Regions
> 1875 Century Boulevard
> Atlanta, GA 30345
> (w) 404/679-7142
> (f) 404/679-7081

http://www.fws.gov/southeast/
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From: Leopoldo Miranda
To: Jack Arnold; Jeff Weller; larry_lee@fws.gov; Acquanetta Reese
Subject: Fwd: Eastern Collier HCP -- white paper
Date: Monday, September 30, 2019 1:29:33 PM

My only potentially responsive email. Gary copied me. I don't think this would be a responsive record. Please verify.

Leo

Leopoldo Miranda, Regional Director
USFWS, South Atlantic-Gulf &
Mississippi-Basin
404-679-4000

Sent from my iPhone

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Begin forwarded message:

> **From:** "Albrecht, Virginia" <valbrecht@hunton.com>
> **Date:** May 2, 2017 at 8:53:52 PM AST
> **To:** Gary Frazer <gary_frazer@fws.gov>
> **Cc:** Cynthia Dohner <Cynthia_Dohner@fws.gov>, Mike Oetker <mike_oetker@fws.gov>, Leopoldo Miranda <Leopoldo_Miranda@fws.gov>
> **Subject: Re: Eastern Collier HCP -- white paper**
>
> Gary -- Thanks for getting this going. VSA
>
> Sent from my iPhone
>
> On May 2, 2017, at 8:05 PM, Gary Frazer <gary_frazer@fws.gov<mailto:gary_frazer@fws.gov>> wrote:
>
> Virginia -- The Regional Director's office reached out to the Solicitor's office, and our SOL attorney is now engaged on this issue and expects to provide her review of your white paper by the middle of the month. -- GDF
>
> Sent from my iPad
>
> On Apr 27, 2017, at 12:12 PM, Albrecht, Virginia <valbrecht@hunton.com<mailto:valbrecht@hunton.com>> wrote:
>
> Gary – Here's the white paper we sent to the Service in February. As

discussed, we had very productive meetings in Collier County yesterday and Tuesday with Rob Tawes and David Dell (from the regional office) and Ken MacDonald and Connie Casseler (sp?) (from Vero Beach) and have made good progress on completing the HCP and the draft EIS (and related environmental reviews). All agree that in order to move forward we need the Solictor's office to engage on the issue of how to address vehicle strikes of panthers, and we appreciate your help in securing that important involvement. I think there was general sentiment that the decision how to address vehicle strikes could have national implications, so coordination with headquarters would likely be useful at some point.

Let me know if you need anything further. I will be out of the office today and tomorrow so best way to call me is via cell phone – 240-498-6409.

Thanks, Virginia

<image001.jpg>

Virginia S. Albrecht
Special Counsel
valbrecht@hunton.com<mailto:valbrecht@hunton.com>
p

202.955.19433

bio<http://webdownload.hunton.com/esignature/bio.aspx?U=08391> |
vCard<http://webdownload.hunton.com/esignature/vcard.aspx?U=08391>

Hunton & Williams LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037
hunton.com<http://www.hunton.com/>

<ECPO Legal Summary of Proper Scope of Environmental Analysis for Roadway....pdf>

From: Arnold, Jack
To: Leopoldo Miranda
Cc: Jeff Weller; Larry Lee; Acquanetta Reese
Subject: Re: Eastern Collier HCP -- white paper
Date: Tuesday, October 1, 2019 6:33:55 AM

Tiffany is verifying whether this record is considered responsive or not since you were just cc'ed. We'll handle accordingly.

Jack Arnold
Deputy Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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On Mon, Sep 30, 2019 at 3:29 PM Leopoldo Miranda <leopoldo_miranda@fws.gov> wrote:

> My only potentially responsive email. Gary copied me. I don't think this would be a responsive record. Please verify.
>
> Leo
>
> Leopoldo Miranda, Regional Director
> USFWS, South Atlantic-Gulf &
> Mississippi-Basin
> 404-679-4000
>
> Sent from my iPhone
>
> ***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.***
>
> Begin forwarded message:
>
> **From:** "Albrecht, Virginia" <valbrecht@hunton.com>
> **Date:** May 2, 2017 at 8:53:52 PM AST
> **To:** Gary Frazer <gary_frazer@fws.gov>
> **Cc:** Cynthia Dohner <Cynthia_Dohner@fws.gov>, Mike Oetker <mike_oetker@fws.gov>, Leopoldo Miranda <Leopoldo_Miranda@fws.gov>

Subject: Re: Eastern Collier HCP -- white paper

Gary -- Thanks for getting this going. VSA

Sent from my iPhone

On May 2, 2017, at 8:05 PM, Gary Frazer <gary_frazer@fws.gov<mailto:gary_frazer@fws.gov>> wrote:

Virginia -- The Regional Director's office reached out to the Solicitor's office, and our SOL attorney is now engaged on this issue and expects to provide her review of your white paper by the middle of the month. -- GDF

Sent from my iPad

On Apr 27, 2017, at 12:12 PM, Albrecht, Virginia <valbrecht@hunton.com<mailto:valbrecht@hunton.com>> wrote:

Gary – Here's the white paper we sent to the Service in February. As discussed, we had very productive meetings in Collier County yesterday and Tuesday with Rob Tawes and David Dell (from the regional office) and Ken MacDonald and Connie Casseler (sp?) (from Vero Beach) and have made good progress on completing the HCP and the draft EIS (and related environmental reviews). All agree that in order to move forward we need the Solictor's office to engage on the issue of how to address vehicle strikes of panthers, and we appreciate your help in securing that important involvement. I think there was general sentiment that the decision how to address vehicle strikes could have national implications, so coordination with headquarters would likely be useful at some point.

Let me know if you need anything further. I will be out of the office today and tomorrow so best way to call me is via cell phone – 240-498-6409.

Thanks, Virginia

<image001.jpg>

Virginia S. Albrecht
Special Counsel
valbrecht@hunton.com<mailto:valbrecht@hunton.com>
p

202.955.19433

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vCard<http://webdownload.hunton.com/esignature/vcard.aspx?U=08391>

Hunton & Williams LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037
hunton.com<http://www.hunton.com/>

<ECPO Legal Summary of Proper Scope of Environmental Analysis for Roadway....pdf>

From: Tawes, Robert
To: Arnold, Jack
Cc: Phillips, Catherine; Jeff Weller; Larry Williams; Dell, David; Victoria Davis
Subject: Re: Weeklies and EIS"s
Date: Tuesday, October 1, 2019 7:31:48 AM

This is what I put in the staff notes, under the week ahead report heading. Feel free to edit as you see fit. Rob

East Collier County, Florida, Multi-species Habitat Conservation Plan (EIS)(S.O. 3355)
We are currently on "pause" as we process a twelfth landowner application (Gargiulo, Inc.) received in September, and work with the applicants to analyze the results of traffic modeling and expected consequences of increased traffic on the Florida panther. The draft Notice of Availability announcing the twelfth applicant is being reviewed by Regional Director, will be routed through the Office of the Solicitor for review, and then entered into DTS for HQ and ExecSec clearance and publication in the Federal Register. Major progress has been made with the biological opinion, EIS, response to comments, and a memorandum of understanding with the Corps of Engineers. We have been in formal tribal consultation with the Seminole Tribe and the Miccosukee Indians, with the latter formally objecting to the project.

On Mon, Sep 30, 2019 at 11:24 AM Tawes, Robert <robert_tawes@fws.gov> wrote:

> Roger that just gave the assignment to Dell for turning in this Wednesday COB. It will be similar to the updates we place in the Department NEPA database outlining the "paused" status. Also shared with Larry and Rox. Rob
>
> On Mon, Sep 30, 2019 at 10:33 AM Arnold, Jack <jack_arnold@fws.gov> wrote:
>
> > Rob - Looks to me like we need to start providing updates on EISs in the DOI week ahead reports.
> >
> > Let me know if we need to discuss with EA - we can set up a quick meeting.
> >
> > Thanks,
> >
> > Jack Arnold
> > Deputy Assistant Regional Director - Ecological Services
> > U.S. Fish and Wildlife Service
> > 1875 Century Blvd.
> > Atlanta, GA 30345
> > 404-679-7311 office
> > 404-679-7081 fax
> > 703-789-5620 cell
> >
> > 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.

---------- Forwarded message ---------
From: **Davis, Elsie** <elsie_davis@fws.gov>
Date: Mon, Sep 23, 2019 at 1:18 PM
Subject: Fwd: Weeklies and EIS's
To: FW4 RDT and Deputies <fw4_rdt_and_deputies@fws.gov>, FW4 ALL External Affairs <fw4_all_external_affairs@fws.gov>, Nanciann Regalado <nanciann_regalado@fws.gov>, Victoria Davis <victoria_davis@fws.gov>, James Gray <james_gray@fws.gov>, Michael Lusk <michael_lusk@fws.gov>

Hi:
.
We are now being asked to include information about Environmental Impact Statements and their status. This is for the Weekly Secretarial Report.
See Matt Trott's note.

Thank you.

Elsie
Elsie_Davis@fws.gov
404-679-7107

---------- Forwarded message ---------
From: **Trott, Matthew** <matthew_trott@fws.gov>
Date: Mon, Sep 23, 2019 at 12:12 PM
Subject: Weeklies and EIS's
To: Al Barrus <al_barrus@fws.gov>, Amy Jonach <amy_jonach@fws.gov>, Andrea Medeiros <andrea_medeiros@fws.gov>, Anna Munoz <anna_munoz@fws.gov>, Brent Lawrence <brent_lawrence@fws.gov>, Brian Hires <brian_hires@fws.gov>, Cade London <cade_london@fws.gov>, Charles Traxler <Charles_Traxler@fws.gov>, Christina Meister <Christina_Meister@fws.gov>, Christine Eustis <Christine_Eustis@fws.gov>, Craig Springer <Craig_Springer@fws.gov>, Denise Sanchez <denise_sanchez@fws.gov>, DJ Monette <dj_monette@fws.gov>, Elsie Davis <elsie_davis@fws.gov>, Gary Frazer <gary_frazer@fws.gov>, Gavin Shire <gavin_shire@fws.gov>, Gina Shultz <Gina_Shultz@fws.gov>, Gloria Bell <Gloria_Bell@fws.gov>, Ivan Vicente <ivan_vicente@fws.gov>, Jason Holm <Jason_Holm@fws.gov>, John Heil <john_heil@fws.gov>, Kyla Hastie <Kyla_Hastie@fws.gov>, laury_parramore <laury_parramore@fws.gov>, Lois Wellman <lois_wellman@fws.gov>, Miel Corbett <Miel_Corbett@fws.gov>, Mogadam, Roya <roya_mogadam@fws.gov>, Pamela Bierce <Pamela_Bierce@fws.gov>, Philip Kloer <Philip_Kloer@fws.gov>, Sara Boario <sara_boario@fws.gov>, Scott Aikin <scott_aikin@fws.gov>, Terri Edwards <Terri_Edwards@fws.gov>, Tim Patronski <Tim_Patronski@fws.gov>, Vanessa Kauffman <vanessa_kauffman@fws.gov>, Mary Elder <mary_elder@fws.gov>, Erin Curtis <erin_curtis@fws.gov>
Cc: Matthew Huggler <matthew_huggler@fws.gov>, Charisa Morris <charisa_morris@fws.gov>, Nancy Monroe <nancy_monroe@fws.gov>

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Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
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1875 Century Boulevard
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(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
www.fws.gov

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-

From: Arnold, Jack
To: Tawes, Robert
Cc: Phillips, Catherine; Jeff Weller; Larry Williams; Dell, David; Victoria Davis
Subject: Re: Weeklies and EIS"s
Date: Tuesday, October 1, 2019 2:40:20 PM

Thanks Rob.

Victoria - can you make sure Elsie gets this for the Secretarial Report, along with the other staff notes tomorrow?

Thanks,
Jack Arnold
Deputy Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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> **East Collier County, Florida, Multi-species Habitat Conservation Plan (EIS)(S.O. 3355)**
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> ---------- Forwarded message ---------
> From: **Davis, Elsie** <elsie_davis@fws.gov>
> Date: Mon, Sep 23, 2019 at 1:18 PM
> Subject: Fwd: Weeklies and EIS's
> To: FW4 RDT and Deputies <fw4_rdt_and_deputies@fws.gov>, FW4 ALL External Affairs <fw4_all_external_affairs@fws.gov>, Nanciann Regalado <nanciann_regalado@fws.gov>, Victoria Davis <victoria_davis@fws.gov>, James Gray <james_gray@fws.gov>, Michael Lusk <michael_lusk@fws.gov>
>
> Hi:
> .
> We are now being asked to include information about Environmental Impact Statements and their status. This is for the Weekly Secretarial Report.
> See Matt Trott's note.
>
> Thank you.
>
> Elsie
> Elsie_Davis@fws.gov
> 404-679-7107
>
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> From: **Trott, Matthew** <matthew_trott@fws.gov>
> Date: Mon, Sep 23, 2019 at 12:12 PM
> Subject: Weeklies and EIS's

To: Al Barrus <al_barrus@fws.gov>, Amy Jonach <amy_jonach@fws.gov>, Andrea Medeiros <andrea_medeiros@fws.gov>, Anna Munoz <anna_munoz@fws.gov>, Brent Lawrence <brent_lawrence@fws.gov>, Brian Hires <brian_hires@fws.gov>, Cade London <cade_london@fws.gov>, Charles Traxler <Charles_Traxler@fws.gov>, Christina Meister <Christina_Meister@fws.gov>, Christine Eustis <Christine_Eustis@fws.gov>, Craig Springer <Craig_Springer@fws.gov>, Denise Sanchez <denise_sanchez@fws.gov>, DJ Monette <dj_monette@fws.gov>, Elsie Davis <elsie_davis@fws.gov>, Gary Frazer <gary_frazer@fws.gov>, Gavin Shire <gavin_shire@fws.gov>, Gina Shultz <Gina_Shultz@fws.gov>, Gloria Bell <Gloria_Bell@fws.gov>, Ivan Vicente <ivan_vicente@fws.gov>, Jason Holm <Jason_Holm@fws.gov>, John Heil <john_heil@fws.gov>, Kyla Hastie <Kyla_Hastie@fws.gov>, laury_parramore <laury_parramore@fws.gov>, Lois Wellman <lois_wellman@fws.gov>, Miel Corbett <Miel_Corbett@fws.gov>, Mogadam, Roya <roya_mogadam@fws.gov>, Pamela Bierce <Pamela_Bierce@fws.gov>, Philip Kloer <Philip_Kloer@fws.gov>, Sara Boario <sara_boario@fws.gov>, Scott Aikin <scott_aikin@fws.gov>, Terri Edwards <Terri_Edwards@fws.gov>, Tim Patronski <Tim_Patronski@fws.gov>, Vanessa Kauffman <vanessa_kauffman@fws.gov>, Mary Elder <mary_elder@fws.gov>, Erin Curtis <erin_curtis@fws.gov>
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-

From: Davis, Victoria
To: Arnold, Jack
Cc: Tawes, Robert; Phillips, Catherine; Jeff Weller; Larry Williams; Dell, David
Subject: Re: Weeklies and EIS"s
Date: Tuesday, October 1, 2019 2:49:10 PM

Will do.

On Tue, Oct 1, 2019 at 4:40 PM Arnold, Jack <jack_arnold@fws.gov> wrote:

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>
> Victoria - can you make sure Elsie gets this for the Secretarial Report, along with the other staff notes tomorrow?
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> -

--

--victoria

Victoria Davis
U.S. Fish & Wildlife Service
South Atlantic-Gulf Region
Ecological Services
1875 Century Boulevard
Atlanta, Georgia 30345

Telephone: 404/679-4176
Facsimile: 404/679-7081

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From:	Scott, David
To:	Williams, Larry
Cc:	Catherine Phillips
Subject:	Fwd: Re: Re: [EXTERNAL] FWS Panther Habitat Assessment Methodology - not consistent with panther science
Date:	Tuesday, October 8, 2019 7:16:31 AM
Attachments:	comments_on_fws-R4=ES-2018-0079.pdf 00_CBD_Sierra_Club_ConservancySWFL_NRDC_Comments_on_ECMSHCP_12-3-18_-_final.pdf Halupa comments-Eastern Collier-HCP_dEIS.pdf SFWA_Comment_letter_Eastern_Collier_MSHCP (1).pdf Frakes et al. 2015. FL panther habitat..pdf

---

Larry,

She also sent Kautz et al. (2006) - BIOLOGICAL CONSERVATION 130 (2006) 118 – 133 ... (not attached here).

These are the issues I highlighted yesterday on the phone. We (the Service) need to do our due diligence to be sure that we apply the science correctly and address the science-based concerns in the public comments from the draft EIS. I suggest making sure our panther expert concurs on biological issues and future population viability for any impacts to Primary / Core Habitat. Accounting for all take is at the heart of the concerns raised ... urban development, increased population density, traffic increases, etc. that lead to direct mortality and fragmentation of habitat, reducing movements and access to available habitat ... etc.

Not sure how in-depth this will get but I need to be kept in the loop on the HCP and how the best science is being applied to address public comments / concerns raised in the EIS.

DAVID P. SCOTT
Science Integrity Officer
U.S. Fish & Wildlife Service (SA-HQ)
Ottawa National Wildlife Refuge
14000 West State Route 2
Oak Harbor, OH 43449
612-597-2131
David_Scott@fws.gov

---------- Forwarded message ---------
From: **Paula Halupa** <halupap@comcast.net>
Date: Sun, Oct 6, 2019 at 1:23 PM
Subject: Re: Re: Re: [EXTERNAL] FWS Panther Habitat Assessment Methodology - not consistent with panther science
To: Scott, David <david_scott@fws.gov>

David,

Thanks for your response and for your willingness to examine/investigate these issues.

I thought the core science and conservation concerns were quite evident from my emails and documents that I provided (i.e., peer-reviewed scientific papers, one set of substantial public comments on the proposed ECMSHCP and dEIS). I will try to be clearer and answer your questions.

The core science / conservation concern:

The core science / conservation concern is that the best available science on panthers and panther habitat is not being used by the SFESO and the RO in its regulatory programs (i.e., section 7 and section 10). Much of the best available science comes from habitat models in peer-reviewed journal articles (e.g., Kautz et al. 2006, Frakes et al. 2015) and PVAs (e.g., Root 2004). The FWS' current recovery plan (Service 2008) provides a comprehensive description of the threats to the species, the most prominent of which is habitat loss. In short, the best available science states that no further habitat loss or loss of function can be tolerated in the core panther habitat (i.e., the Primary Zone) if the species is to survive and recover. The FWS' recovery plan defines the Primary Zone as "lands essential to the long-term viability and persistence of the panther in the wild" (FWS 2008). Yet, the FWS fails to recognize the importance of this essential habitat and continues to disregard the science and allow substantial losses in its project reviews and regulatory decisions.

The best science:

I encourage you to read Kautz et al 2006, Frakes et al 2015, and Root 2004, but I point you to some key statements from those papers, as follows:

From Kautz et al. (2006):

- "Assessments of potential impacts of developments should strive to achieve no net loss of landscape function or carrying capacity for panthers within the Primary Zone or throughout the present range of the Florida panther."
- "Habitat quality, functionality, and availability for panthers must be maintained to ensure that no net loss of function or carrying capacity occurs. When adverse land uses within the Primary Zone are unavoidable, affected lands should be compensated by the restoration or enhancement of habitat that maintains or increases the potential carrying capacity for panthers elsewhere within the Primary Zone."

From Frakes et al. (2015):

- "Because there is less panther habitat remaining than previously thought, we recommend that all remaining breeding habitat in south Florida should be maintained, and the current panther range should be expanded into south-central Florida."
- "Further loss of adult panther habitat is likely to reduce the prospects for survival of the existing population, and decrease the probability of natural expansion of the population into south-central Florida."

From Root (2004):

- "Unless the current condition, amount, and configuration of the currently occupied panther habitat are safeguarded, the long-term viability of the panther is not secure."

From the peer-reviewed FWS Recovery Plan (2008):

- Explicitly states the primary goal for the "Existing Population" is to "1. To maintain, restore, and expand the panther population and its habitat in south Florida and expand the breeding portion of the population in south Florida to areas north of the Caloosahatchee River to maximize the probability of the long-term persistence of this metapopulation". The first primary action is to: "1.1. Maintain, restore, and expand the panther population and its habitat in south Florida." For South Florida Habitat the primary action is to: "1.1.1. Maintain the ability of the Primary, Secondary, and Dispersal Zones, as identified in Kautz et al. (2006), to contribute to a viable population."
- With regard to "Habitat Fragmentation, Connectivity, and Spatial Extent", the Recovery plan specifies to: "Maintain spatial extent and arrangement of habitat. Areas currently used by panthers and habitat conditions within the Primary Zone should be maintained."

What actions or decisions are occurring that run counter to that science?

Basically, **all** of the consultations in Primary panther habitat are counter to the best science. Please examine the BOs in panther habitat that have been conducted since the Kautz et al. 2006 paper was published. You will find little regard for losses in the Primary Zone and no real analysis of habitat losses (i.e., direct or indirect effects, loss of function, cumulative impacts, changes to spatial configuration, changes to baseline). There is no "maintenance" of existing panther habitat (quality, function, or spatial extent); there are just losses. There is rarely any "restoration or enhancement" of habitat. Instead, the FWS simply plugs projected losses into a flawed calculator to determine "mitigation" or "compensation" and at unacceptable levels. This methodology has been flawed since its inception, but revision is needed because: 1) there is substantially less panther habitat remaining than when the approach was first formed; and, 2) lands outside the Primary Zone were over-valued. The Frakes et al. 2015 paper, in part, calls for the revision of the flawed methodology.

Further, FWS does not appear to apply any serious thought to the ramifications of large development projects in panther habitat or give any serious consideration to if any would "jeopardize the continued existence" of the species. What is the Jeopardy standard for the panther? Despite enormous losses in panther habitat since 2006, the FWS still, inexcusably, has not used the sound science in its consultations and has not seriously assessed if proposed projects would jeopardize the panther. This flies in the face of the best science and FWS' sole responsibility under section 7(a)(2) of the ESA.

Which individual or individuals are responsible?

Regulatory biologists and managers at the SFESO should be aware of the best science. It is not clear why the Panther Coordinator, David Shindle, is not actively involved in section 7 and section 10 decisions. Ultimately, the Regulatory Supervisors (e.g., Connie Cassler), Field Supervisor (Roxanna Hinzman), and State Supervisor (Larry Williams) are the local decision-makers for biological opinions originating from the SFESO. In answer to one of my questions from June 2019, with regard to the panther methodology, Connie Cassler stated "We are currently using the reduced multiplier because we were told to make the change right away." I do not know who instructed her to do so or why. The science and the public are calling for a revised methodology, not a simple reduction of a base ratio that will make the flawed methodology worse. The issues are about the current panther methodology, lack of regard for the best available science, and inept section 7 and 10 decisions that are affecting panther survival and recovery.

The RO (David Dell, Jerry Ziewitz, Rob Tawes, Leo Miranda) have also been involved in the oversight of the section 7 and section 10 programs. The flaws in the regulatory decisions relating to panthers are quite frankly, glaring (i.e., previously litigated, formally challenged under the Data Quality Act, rejected in published science, questioned internally by FWS staff, and disputed by outside parties during public comment periods). The individuals who are actively involved with the ECMSHCP and dEIS should realize that the project is being mishandled and the mistakes are inexcusable and will have enormous consequences to the panther. Substantial public comments from environmental groups and individuals attest to the severe flaws in that project. https://www.regulations.gov/docketBrowser?rpp=25&so=DESC&sb=commentDueDate&po=0&dct=PS&D=FWS-R4-ES-2018-0079

I am providing my comments on the ECMSHCP and dEIS for more background into these issues (attached). Please also see other comments (attached), which were downloaded from regulations.gov.

Please let me know if you have questions or require further information.

Thank you for your attention to these important matters.

-Paula

> On October 4, 2019 at 7:27 AM "Scott, David" <david_scott@fws.gov> wrote:
>
> Paula,
>
> I am the Science Integrity Officer for the US Fish & Wildlife Service. I can look into this issue and I appreciate the materials you forwarded. However, it would be helpful if you could clearly and concisely articulate the core science / conservation concern that is being impacted by improper use of the best available science (or similarly, best available science that is

known by the agency but is being ignored). What is the best science? What actions or decisions are occurring that run counter to that science, etc.? And, if it is known, please identify the individual or individuals who directed the actions or made the decisions that you believe are contrary to using the best science for conservation of Florida panthers.

Thank you,

DAVID P. SCOTT
Science Integrity Officer
U.S. Fish & Wildlife Service (SA-HQ)
Ottawa National Wildlife Refuge
14000 West State Route 2
Oak Harbor, OH 43449
612-597-2131
David_Scott@fws.gov



On Thu, Oct 3, 2019 at 10:53 AM Paula Halupa < halupap@comcast.net> wrote:

> Mr. Scott,
>
> I understand that you are a Science Integrity Officer for the FWS, and I want to bring this important issue to your attention.
>
> The FWS' South Florida Ecological Service Office is continuing to use a Panther Habitat Methodology that is not consistent with panther science. The biologists, managers, Field Supervisor, and Florida State Supervisor are all aware of this. Personnel in the Regional Office who are familiar with panther science and those who have been involved in the Eastern Collier Multi-species HCP and draft EIS should also be aware of the deeply flawed methodology because they presumably reviewed the substantial public comments on that project (please see attached).
>
> I find it very disturbing that no one from the Field Office appears to be examining the issue or taking it seriously. Please see email exchanges below. The flawed methodology is still being used today without scientific basis, to the detriment of the Florida panther, further diminishing its chances of survival and recovery.
>
> As a biologist and concerned citizen, I find the FWS' continued use of this methodology without regard for the science or the public comments deeply troubling. I would appreciate you looking into this matter and correcting this approach as scientific integrity and government accountability are fundamental principles of paramount importance.
>
> Please let me know what actions you will be taking. If you are not the correct person to address these issues, please let me know who the appropriate parties (inside the FWS, DOI, or otherwise) are.
>
> Thank you,
>
> -Paula Halupa

---------- Original Message ----------
From: Paula Halupa < halupap@comcast.net>
To: "Cassler, Constance" < constance_cassler@fws.gov>
Cc: Roxanna Hinzman < roxanna_hinzman@fws.gov>, david_shindle@fws.gov, larry_williams@fws.gov, frakesr@comcast.net
Date: June 20, 2019 at 12:10 PM
Subject: Re: Re: [EXTERNAL] FWS Panther Habitat Assessment Methodology - not consistent with panther science

Hi all,

Thanks for responding. It is very unfortunate that you were told to make this change as there is no apparent scientific basis for it. As you should be aware, virtually all peer-reviewed publications and reports on panther conservation have recommended complete protection and maintenance of habitat function and extent of the remaining primary zone and breeding habitat in order to achieve a viable panther population in south Florida. I hope the FWS will take time to review the best available panther science (Kautz et al 2006, Frakes et al. 2015) (see attached).

As stated in my comments on the Eastern Collier Multi-species HCP and draft EIS, the FWS methodology is scientifically flawed and severely outdated, and it has been for more than a decade. The draft methodology was based upon a rule-set and basic premises that were removed by FWS managers (e.g., the methodology would only be used on non-jeopardy projects; it was not to be used on projects that would result in jeopardy; losses in the Primary Zone should be compensated with securing habitat in the Primary Zone; restoration of habitat (replacing function) was a key component needed to “create” panther habitat to maintain spatial configuration and extent: and the base ratio of 2.5:1 would be reexamined every two years since 2004 (note: this ratio was expected to increase as panther habitat was lost and fragmented)). The FWS staff who prepared the original draft methodology made FWS managers aware that the approach was flawed and not consistent with the best available panther science, namely that produced by the MERIT Panther Subteam and subsequently published as Kautz et al. 2006) in 2006. FWS biologists and former employees also made management aware of this at subsequent meetings (2017-2018).

Furthermore, Frakes et al. (2015) states: “Our study suggests that changes are needed to current conservation policies and practices for the Florida panther, especially with regard to methodologies for calculating habitat needs and impacts from development. For example, the U.S. Fish and Wildlife Service (USFWS) Panther Habitat Assessment Methodology (see Biological Opinions issued by USFWS since 2003 [43]) under-values the remaining adult habitat by overestimating the value of lands outside the Primary Zone.” The 2012 methodology has been flawed since its inception, but revision is needed because: 1) there is substantially less

panther habitat remaining than when the approach was first formed; and, 2) lands outside the Primary Zone were over-valued.

I hope the FWS will fully consider the detailed comments provided by the CBD, Conservancy of SW Florida, and the Sierra Club on the HCP and draft EIS (see attached). Their review of the project does an excellent job of analyzing the impacts to the panther and shows the deep flaws with the PHU methodology (see pages 32-37 of their comments attached).

The panther habitat assessment methodology needs to be scrapped or substantially revised to be based upon panther science. For years I thought that the FWS could use the best available science to come up with a scientifically sound and legally defensible approach. At least that was my plan, when a small team of biologists embarked on it about 15 years ago. However, I saw it abused and twisted along the way. Perhaps now is the time to have an independent technical science team (like the Panther Scientific Review Team -- see Beier et al 2003) do this work instead.

Please let me know when the revised methodology is available and if it will undergo any peer review.

Thanks,

-Paula

> On June 10, 2019 at 4:19 PM "Cassler, Constance" <constance_cassler@fws.gov> wrote:
>
> Hi Paula,
>
> The text for the updated methodology with the reduced multiplier is still under review. We are currently using the reduced multiplier because we were told to make the change right away.
>
> 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
>
> Follow us on Twitter @USFWSVERO
> Follow us on Facebook @USFWSSouthFlorida
> Follow us on InstaGram @usfws_south_florida
> Visit our web site at www.fws.gov/verobeach/
>
> 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 Thu, Jun 6, 2019 at 2:24 PM Paula Halupa <halupap@comcast.net> wrote:

> Hi,
>
> What is the status of the updated methodology? Is it available yet? Or, is it being used, but somehow not available?
>
> Thanks,
>
> -Paula
>
> > ---------- Original Message ----------
> > From: Paula Halupa <halupap@comcast.net>
> > To: "Cassler, Constance" <constance_cassler@fws.gov>
> > Date: May 24, 2019 at 1:52 PM
> > Subject: Re: [EXTERNAL] FWS Panther Habitat Assessment Methodology - current version and that cited in ECMSHCP, dEIS
> >
> > Hi Connie,
> >
> > Is this available? If so, can you please send it to me?
> >
> > Thanks,
> >
> > -Paula
> >
> > > On December 7, 2018 at 8:26 AM "Cassler, Constance" <constance_cassler@fws.gov> wrote:
> > >
> > > Hi Paula,
> > >
> > > The link in the HCP is to the correct document, so please use the link.
> > >
> > > The reason for the change in the base multiplier is the language that was used when the mitigation policies were rescinded earlier this year. The language indicated the Service shouldn't refer to mitigation that wasn't directly related to

project impacts. We removed the parts of the multiplier that referred to projects we wouldn't see in Golden Gate Estates and Lehigh Acres, and traffic effects that are general and are unrelated to a specific project. I have provided an updated methodology that explains this to Roxanna. As soon as it is approved, I can send it out and we can post it.

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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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 Wed, Nov 28, 2018 at 9:56 AM Paula Halupa <halupap@comcast.net> wrote:

Good

morning,

Can you please send me the documents that were cited in the HCP and dEIS that relate to this methodology? I don't have any confidence that the link provided in the HCP is correct and there was no reference given for Service 2012 in the references provided in chapter 4 of the dEIS.

Also, I have heard from multiple staff that the base

ratio
was
being
lowered
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reason.
Can
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and
further
fragmented.

The
first
part of
my
request
is time
sensitive.

Thank
you,

-Paula

December 1, 2018

Roxanna Hinzman, Field Supervisor
US Fish and Wildlife Service
1339 20th St.
Vero Beach, FL 32960-3559

Public Comments Processing
Attn: FWS-R4-ES-2018-0079
U.S. Fish and Wildlife Service Hdqtr.
MS: BPHC
5275 Leesburg Pike
Falls Church, VA 22041-3803

Re: FWS-R4-ES-2018-0079

Please consider the specific comments set out below on (1) the draft Environmental Impact Statement (dEIS) for the Eastern Collier Property Owners' (ECPO's or Applicants') Eastern Collier Multispecies Habitat Conservation Plan (ECMSHCP) and (2) the ECMSHCP. As a general matter, it appears that the dEIS preparers did little independent research and analysis, and relied almost entirely on the ECMSHCP for their information and determinations.

1. **The ECMSHCP jeopardizes the continued existence of the panther because it fails to provide functional wildlife corridors and will result in a significant loss of primary panther habitat.**

   USFWS has the authority and responsibility to require functional wildlife corridors and protection of primary zone habitat. USFWS can do this by adopting the Scientific Technical Panther Review Team's recommendations and requiring that current land uses in the "preservation" areas be continued to prevent agricultural intensification.

Section 10 of the ESA authorizes USFWS to issue an incidental take permit (ITP) if it finds, among other things, that the taking and related conservation plan "will not appreciably reduce the likelihood of survival and recovery of the species in the wild." USFWS must show that the Applicants' proposed development of 45,000 acres in the Rural Lands Stewardship Area (RLSA)

and the ECMSHCP will not appreciably reduce the survival and recovery of the Florida panther. USFWS has not done this.

A. The ITP should be denied because the Applicants have failed to provide functional wildlife corridors which are essential to the long-term survival of the panther. USFWS must require functional wildlife corridors.

USFWS has the responsibility to assure that ECPO provides adequate and functional wildlife corridors for panthers. The dEIS does not discuss providing functional corridors for panther movement north and south, nor the adverse impacts of the corridors proposed in the ECMSHCP. Maintaining functional wildlife corridors is essential to the long-term survival of the panther. As set forth below, reports and studies by panther experts, USFWS and Florida Wildlife Commission's (FWC's) Fish and Wildlife Research Institute describe the important wildlife corridors in the RLSA and the critical importance of maintaining functional wildlife corridors for panthers.

The August 2018 ECMSHCP identifies two important existing regional wildlife corridors for the Florida panther movements and dispersal: the Okaloachoochee Slough (OK Slough) and Camp Keais Strand (CKS). Pg. 82. The dEIS states the "the primary pathways, or corridors, used by panthers in the vicinity of the ECMSHCP are Okaloacoochee Slough between BCNP and OSSF, and Camp Keais Strand between FPNWR and CREW." dEIS at 58. ECPO and the three participating conservation groups selected a team of expert panther biologists[1], the Florida Panther Protection Program Panther Review Team (PRT), to evaluate the ECPO's Florida Panther Protection Program (FPPP) and the draft ECMSHCP through which the FPPP would be implemented.

The PRT made a number of recommendations and cautioned against a number of proposals in the draft ECMSHCP in a 2009 Report (PRT Rpt.). According to the 2009 PRT Report "The Collier County RLSA is strategically located between major publicly-owned areas used by Florida panthers—Corkscrew Regional Ecosystem Watershed [CREW], the Florida Panther National Wildlife Refuge [FPNWR], Big Cypress National Preserve

[1] Chris Belden, Randy Kautz, Darrell Land, Tom Logan, David Shindle, Dan Smith.

[BCNP] and Okaloachoochee Slough State Forest [OSSF]. Florida panthers currently have the ability to move among these areas, but maintaining connectivity within and among these panther habitats is essential to the long-term viability of the panther population (Morrison and Boyce 2008)." PRT Rpt. at 63.

The August 2018 ECMSHCP uses arrows to show a proposed north and south corridor, but does not provide any details on width and length, native cover, landowner commitment or surrounding habitat to ensure that corridors will be functional. Figure 4.10-2.

The dEIS notes that Alternative 2 will "preserve" some wildlife dispersal corridors that provide important linkages between existing public lands such as the FPWNR, BCNP, CREW, OSSF and Dinner Island Ranch Wildlife Management area. However, the wildlife corridors "will be narrowed by planned development; particularly the northwest corridor leading from CREW to OSSF (northern corridor), and the corridor from FPNWR to Owl Hammock north of Oil Well Road and west of State Road 29 (southern corridor)." dEIS at 81. Otherwise, the dEIS provides little discussion and no analysis of the impacts (direct, indirect and/or cumulative) of the proposed corridors and the long-term survival of the panther.

Based on the facts concerning developments proposed and ongoing in the 45,000 acres of Covered Activities, modeling and reports by panther experts on the importance of the Summerland Swamp area, CKS, and a pathway north from CREW to OSSF, we know that the currently proposed corridors will not be functional. The EIS should discuss required criteria for functional panther corridors and obtain binding commitments from ECPO concerning provision of adequate wildlife corridors. These matters are discussed more fully below.

The Southern Corridor—FPNWR north thru Summerland Swamp to OSSF.

The natural wildlife corridor connector of the Summerland Swamp/Horse Trail Area links the FPNWR through Summerland Swamp to the Area of Critical State Concern (ACSC)/OK Slough. Telemetry data show that panther use is concentrated within Summerland Swamp south to County Road (CR) 858 and in the Horse Trial area northwest of the intersection of SR 29 and CR 858. PRT Report at 63. The dEIS points out that this is one of

two essential corridors for panthers. Pg. 81. According to the PRT, the Summerland Swamp area has been used by panthers over the last 2 decades. PRT Rpt. at 63. The PRT found that data clearly show that the Summerland Swamp habitat linkage area not only functions to facilitate panther movements but also constitutes a portion of male and female panther home ranges. Swanson et al. 2008 study "Use of the Least Cost Pathway to Identify Key Road Segments for Florida Panther," identifies "four key road segments that are critical for maintaining panther movement between FPNWR, BCNPNW, and OKSLOUGH: CR 858 west of SR 29, CR 858 east of SR 29, SR 29 at Owl Hammock curve, and CR 846 east of Immokalee." FWC Wildlife Research Institute Technical Report (TR-13) Pg. 17.

ECPO, more specifically landowner Collier Enterprises, proposes to develop the area north of CR 858 and west of SR 29, the Summerland Swamp/Horse Trail area. ECPO also proposes a road be constructed in this area, Horse Trail Road. See Figure 19 of PRT Report. In evaluating ECPO's proposals, the PRT stated that ECPO's proposed southern corridor does not protect the Horse Trail area and proposes only a single location for panthers to cross SR 29. The PRT recommended that additional areas consisting of native land cover and agriculture be protected within the Summerland Swamp to allow this area to continue to function as occupied panther habitat into the future and that Horse Trail Road not be built because it would greatly diminish the value of the southern corridor. Collier Enterprises rejected the PRT's recommendations. The 2018 ECMSHCP proposes essentially the same southern corridor as the draft ECMSHCP. ECPO's proposed map of development (Figure 4.10-2 in the 2018 ECMSHCP) shows a narrow corridor that will be squeezed on both sides and the north by the proposed Covered Activities.

Swanson, et al. (2008) discussed the importance of the pathway CR 858 west of SR 29, which is designated as open area "suitable for development" under the RLSA program: "If this area is allowed to be developed, panther habitat will be lost and panther movement north will be limited to a constricted passage designated as 'Stewardship' areas east of SR 29. Constricting panthers' movement to only the mapped 'Stewardship' areas between FPNWR and OKSLOUGH may result in fragmenting and isolating today's currently connected panther population." Swanson et al. (2008) at 19. This Study recommended that these lands be placed under the "habitat stewardship" category in the 2002 RLSA program. "We recommend

additional protection for the pathway north of County Road 858 and west of State Road 29." *Id.*

The ECMSHCP states that panther movement north will be protected by its proposal to "preserve" the areas east of SR 29 in the ACSC. Pg. 77. Indeed the dEIS relies on "the ECMSHCP providing permanent preservation and maintenance of large interconnected, and ecologically important blocks of habitat mosaics within the [ECMS]HCP area" for all its determinations. See, e.g. Pg. 240. The primary large interconnected area in the ECMSHCP is the ACSC and surrounding habitat by CR 858 and SR 29. The dEIS ignores the fact that Applicants propose Covered Activity in the area east of SR 29 in the ACSC just south of CR 858, and there is a large block of non-ECPO land north of CR 858 which stretches almost completely across the ACSC to the Hendry County Line. Once roads are improved/expanded and amenities added there will most certainly be an incentive for non-ECPO landowners to develop these lands. Further, ECPO proposes two roads across the ACSC to Hendry County. The connecting habitat from BCNP to OK Slough could be severely restricted, or even completely severed. See, Frakes, R.A. "Impacts to Panther Habitat from the Proposed Eastern Collier Multiple Species Habitat Conservation Plan: A Quantitative Analysis." (2018).[2]

The studies and reports by panther experts show that the dEIS' reliance on ECMSHCP statement that panther movement north will be protected by preservation" of land east of SR 29 in is misplaced.

CREW to FPNWR pathway

Currently panthers can move back and forth between CREW and FPNWR along CKS. The developments proposed for the area between these public lands may completely close off this corridor: (1) Rural Lands West (RLW) (21,700 Acres, Phase 1 4100 acre development footprint) borders the west side of CKS and is in County permitting now; (2) Ave Maria (AM) (10,000 acres, Phase 1 5027 acre development footprint) borders the east side of CKS; and (3) Two smaller developments in the same area as RLW, west of CKS—Hogan Island (2300 acres) and Collier Lakes (640 acres) also in the County permitting process. The 2006 East Collier County Wildlife Movement Study stated that, while the County's RLSA program "protects

[2] Prepared by Dr. Frakes for the Conservancy of Southwest Florida.

wetlands…[it] omits [to] sufficiently protect [] uplands in some areas adjacent to these wetland corridors" and recommends restoration of adjacent upland buffers to retain the functionality of the Camp Keais Strand corridor as it is the "only landscape linkage connecting the Florida Panther NWR to the CREW lands."[3] The PRT also noted the restricted access into CREW that would result from proposed Covered Activities. PRT Rpt. at 64.

The PRT recommended preservation of additional land along CKS as a buffer against human interaction, so that panthers would be able to continue to travel between CKS and FPNWR and from the south through a new corridor to the north and east. PRT Rpt. at 65. However, Collier Enterprises rejected these recommendations. Currently, the corridor proposed by Collier Enterprises along CKS is at most ¼ mile wide in spots, narrower in other parts. It is surrounded by proposed dense development. The panthers will be squeezed to a narrow corridor by RLW.

FWC's Wildlife Research Institute analyses supports maintaining CKS as a critical connection for panthers moving between CREW and FPNWR, particularly as panther movements become further constrained by development within the mapped 'Open Area' and by the associated needs for higher capacity roadways and expanded road network. 2008 Report Swanson et al. at 17

CREW to OSSF pathway

"OKSLOUGH is the northernmost major panther-use area and has been used by dispersing panthers as they travel northward towards and ultimately across the Caloosahatchee River (Maehr et al., 2002)." Swanson et al. 2008 at 17.

The draft ECMSHCP proposed a least cost pathway from CREW to OK Slough along the northern border of the RLSA. However, Barron Collier Corporations, the owner of the land where the corridor would have been located, decided instead to use the entire area for the Immokalee Sand Mine. So the 2018 ECMSHCP just shows a conceptual pathway north to Henry County by arrow, with no information or discussion of the pathway. See

[3] Smith et al. 2006. East Collier County Wildlife Movement Study: SR 29, CR846 and CR 858 wildlife crossing project. Pg. 64. UCF.

Figure 4.10-2 of the ECMSHCP. The dEIS only notes that that the proposed northwest corridor from CREW to OSSF is particularly narrowed by planned development. Pg. 81.

A northern corridor to OK Slough is important to support the USFWS 2008 Panther Recovery Plan of establishing panther population to areas north of the Calooshatchee River. According to the PRT, the greater CREW area is a dead-end destination for panthers and probably, at best could support fewer than ten panthers at any given time. PRT Rpt. at 64. A corridor is needed for the panther to disperse from CREW north to Hendry County and the Calooshatchee River. PRT Rpt. at 68.

Based on the forgoing discussion, it is clear that the ECMSHCP does not provide functional wildlife corridors—the critical north-south pathways within the RLSA may be broken.

> B. <u>The ITP should be denied because the ECMSHCP will result in the destruction of 17,000-22,000 acres of Primary Panther Habitat. USFWS must add conditions to protect primary panther habitat and continue current land uses in "preservation/plan-wide activities" areas to avoid agricultural intensification in these areas.</u>

Florida panther biologists and the USFWS have identified the "primary panther zone" as the land essential to the long-term viability and survival of the panther. Kautz, R. et al.[4] delineated the area of the primary panther zone, which guided the USFWS in its 2008 Florida Panther Recovery Plan.[5] See Figure 4 of the PRT Rpt., showing the primary and secondary panther zones. According to Kautz et al., the primary panther zone is the minimum area necessary to ensure survival of the Florida Panther. USFWS's Florida Panther 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." Pg. 89. Conservation effort should focus on maintaining the total area of the Primary

[4] Kautz, et al, 2006. How much is enough? Landscape-scape conservation for the Florida panther. Biological Conservation: Vol. 130, pg. 118-133.
[5] US Fish and Wildlife Service, 2008. Florida Panther Recovery Plan, 3rd Revision.

Zone "to prevent further loss of population viability." *Id.* The PRT also strongly recommended against development in the primary panther zone habitat, pointing out that open lands in non-primary panther zone were large enough to accommodate over 43,000 acres of development.

However, the ECMSHCP proposes Covered Activities in 17,000-22,000 acres of primary panther habitat. Frakes, R.A. 2018[6] at 23. The ECMSHCP minimizes the value of the area designated for Covered Activities, stating that these lands are less valuable to panthers because they are not necessarily forested or native land covers, but rather are disturbed agricultural lands. The dEIS echos this and states that panthers neither select nor avoid agricultural land. Pg. 89. However, panther scientists have intentionally included agricultural lands in the Primary zone. They specifically state that the Primary Zone includes "other natural and non-urban disturbed land cover types between forest patches that serve [] as landscape connections that accommodate panther home range and dispersal movements." Kautz et al. 2006 at 122. Frakes et al. (2015) concluded "…[I]t appears that a mélange of small, medium, and large forest patches dispersed among open areas may increase the probably that panthers will occupy land-cover in South Florida. Such diverse landscapes may provide suitable prey (white-tailed deer and feral hogs) while providing more edge and therefore more opportunities to hunt successfully."[7]

Thus, contrary to the dEIS statements, the Primary zone includes agricultural land as valuable to meet daily needs and support the prey on which the panther depends.

The dEIS does not evaluate the impacts of proposed development replacing 17,000-22,000 acres of panther Primary Zone; it says that the plan will "offset potential FP habitat impacts" because the Applicants are setting aside 107,000 acres as "preservation/plan-wide activities and very low density use." Pg. 92. The dEIS explains that its analysis is based on the assumption that the 107,000 acres "would be designated solely for preservation." Pg. 19. However, this assumption is faulty.

---

[6] Frakes, R.A. "Impacts to Panther Habitat from the Proposed Eastern Collier Multiple Species Habitat Conservation Plan: A Quantitative Analysis," Oct. 7, 2018, prepared for Conservancy of Southwest Florida.

[7] Frakes et al. 2015. Landscape Analysis of Adult Florida Panther Habitat. PLoS ONE 10(7): e0133044.

To date, ECPO has "preserved" 50,500 acres in Stewardship Sending Areas (SSAs) #1-16, and SSA 17 (over 2700 acres) is currently pending. The majority of the acres to be designated as preservation/plan-wide activities will be SSAs. Of the 50,500 acres of SSAs approved by the County, the landowners have reserved their rights to use over 90% of these areas for agriculture (intensive row crop, housing for labor, citrus groves), silvaculture, agriculture 2 (ranching) and oil and gas exploration and production.

Further, Collier County's Growth Management Plan (GMP) for the RLSA Policies 3.9 and 3.10 allow the landowners to move and expand intensive agriculture activities into these SSAs or "preserved areas" and allow the landowners to convert pasture areas to intensive agricultural operations. Thus, as ECPO converts agricultural land into residential and commercial development in the Covered Activities area they can move intensive agricultural operations into the "preserved" areas. Since ECPO will convert about 37,600 acres of row crops and citrus groves to residential and commercial development, it is likely that agricultural intensification will occur in the "preservation" areas.

The dEIS also states that the "preserved" areas will be "a continuation of current land use. Pg. 80 However, as noted above, agricultural intensification and expansion of agriculture operations can occur in the "preserved" area.

Dr. Frakes noted in his modeling and quantitative analysis of the ECMSHCP impacts to panther habitat that "considerable habitat losses were predicted to occur because of the proximity of parts of the preserved areas to the Covered Activities area, new roads in the Preserved area, and reasonably foreseeable agricultural intensification." Frakes 2018 at 12[8]

The PRT recommended preservation of additional land beyond that set aside in the ECMSHCP in order to preserve core panther habitat areas and adjacent buffers, provide corridors to connect panther habitats on public

[8] Frakes, R.A. "Impacts to Panther Habitat from the Proposed Eastern Collier Multiple Species Habitat Conservation Plan: A Quantitative Analysis."

lands, and minimize future panther habitat fragmentation within the RLSA. See Figure 10-1 of the ECMSHCP, "PRT Recommendations for the RLSA."

The USFWS should

- Evaluate the PRT recommendations and require preservation of all or most of the land the PRT recommended be preserved. Collier Enterprises and Barron Collier Companies own much of the land the PRT recommended to be protected. Four areas of primary panther habitat proposed for Covered Activities are particularly important for panthers—the Summerland Swamp area discussed in 1.A. above, the area along the western side of the RLSA, south of the RLW phase 1 proposed development and very close to the FPNWR where Collier Enterprises proposes "Southern Villages," buffers along CKS/CREW corridor, and the area south of CR 858, east and west of SR 29.

- Require the Applicants to provide meaningful compensation for destruction of primary panther habitat, such as acquisition and restoration of additional panther habitat that can actually help replace the lost habitat functions due to Covered Activities.

- Require the Applicants to maintain current land uses on the lands they plan to "preserve" (or reduce land uses to Conservation), i.e. prohibit agricultural intensification in the "preservation/plan wide areas."

2. The EIS needs to evaluate the Applicants' "take" of the Florida panther that will occur by destruction of 17,000-22,000 acres of panther breeding and feeding habitat (the panther primary zone.)

The dEIS does not accurately evaluate the Applicants "take" of the Florida panther in the form of "harm" because the Applicants will be destroying habitat critical to the panther's survival, significantly impairing breeding and feeding patterns. The dEIS states that under the ECMSHCP that the form of "take" anticipated to occur "would generally be limited to "harassment" (e.g. a development activity that unintentionally annoys a species to the extent that normal behavioral patterns are disrupted) or harm." Chapter 4, Environmental Effects, Pg. 79. The dEIS discussion under Alternative 2 for the Florida Panther in section 4.10.5.2, page 89, states that direct harm is not anticipated from implementation of the ECMSHCP. It acknowledges loss of

panther habitat in Covered Activities areas, but minimizes the value of the loss habitat.

The ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." ESA Section 3. "Harm in the definition of take in the Act means 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 sheltering." 50 CFR 17.3.

Clearly, the Covered Activities will cause significant panther habitat modification or degradation which could kill or injure panthers by significantly impairing breeding and feeding patterns. The importance of the panther primary zone to the survival of the Florida panther is discussed by panther experts and the USFWS as noted in Number 1.B. above. The leading experts in panther conservation recommend that all of the primary zone be kept intact, that there should be no net loss.

The dEIS does not evaluate the impacts of the Covered Activities within the Primary Zone. Instead, the dEIS states that "the plan provides more that sufficient mitigation to offset potential FP habitat impacts" referring to the 107,000 acres "solely for preservation" (discussed in 1.B. and) and PHUs created through preservation of lands. dEIS at 92. Under the ESA, to mitigate "to the maximum extent practicable" requires efforts first be made to avoid the impact." USFWS Handbook Chapter 3. The fact that the Applicants will be preserving some primary zone panther habitat cannot minimize or mitigate the "harm" that comes from destruction of 17,000-22,000 acres of panther breeding and feeding habitat. <u>The plan's approach will result in a net loss of primary zone habitat</u>.

The PRT pointed out flaws in the ECMSHCP's approach. It noted that the greater acreage impact in the primary zone, the greater number of PHUs and higher contribution to the Panther fund, however "the unsettling and perhaps counterproductive aspect of this conclusion is that greater benefit would accrue as a consequence of greater impacts to the Primary Zone, an area that has been described as essential to the survival of the Florida panther." Pg. 37 "The PRT concludes that preserving existing panther habitat is far more valuable than generating funds or providing more mitigation for impacts to the Primary Zone." PRT Rpt. at 75.

Further, ECPO will generate excess PHUs, and a component of ECPO's FPPP and the ECMSHCP is to allow landowners to sell or bank PHUs from the SSAs or "preserved" areas. Under the ECMSHCP, ECPO can sell PHUs to third parties to mitigate for primary panther habitat loss outside the RLSA. The PRT concluded that "using unused PHUs generated from designated Stewardship areas to mitigate for panther habitat loss outside of the RLSA would be detrimental to panther conservation." PRT Rpt. at 46.

USFWS needs to evaluate the "harm" caused by the Applicants' proposed destruction of panther primary habitat. Additionally, USFWS should not allow PHUs generated from ECPO's destruction of primary zone to be used outside of the RLSA.

3. **The dEIS analysis of potential environmental effects is based on a flawed assumption that 107,000 acres will be designated solely for preservation.**

The dEIS states "the basis of analysis in determining potential environmental effects in this dEIS makes a conservative assumption that the approximately 107,000 acres of lands would be designated solely for preservation." dEIS Pg. 19. However, as noted in 1.B. above, under the ECMSHCP "preservation" can include oil & gas exploration and production, intensive agricultural operations (including housing for labor), and silviculture and "preserved" areas currently not in agriculture could be converted to intensive agriculture operations, resulting in a loss of native habitat that supports the listed species covered by the ECMSHCP. The dEIS does not discuss the impacts or environmental effects of these activities on "preserved" areas.

The majority of the "preservation/plan-wide" areas will be covered by SSAs. Of the 50,500 acres of SSAs approved by the County, the landowners have reserved their rights to use over 90% of these areas for agriculture (intensive row crop farming, citrus groves), silvaculture, agriculture 2 (ranching) and oil and gas exploration and production. The landowners provide stewardship easements for SSAs, not conservation easements, and may be able to get out of the SSAs in the future.

Further, as pointed out in 1.B. above, the RLSA program allows the landowners to move and expand intensive agriculture activities into these

SSAs or "preserved areas" and to convert pasture areas to intensive agricultural operations. Thus, as ECPO converts 37,600 acres of agricultural land into residential and commercial development in the Covered Activities area, they can move intensive agricultural operations into the "preserved areas."

Although the SSAs are to protect areas determined to be environmentally sensitive, there is no requirement in the RLSA program that the SSAs keep their value to wildlife and water resources. Take for example, SSA #17 in RLW, currently pending before the County for approval. SSA #17 is a water retention area, providing important functions of water storage, replenishment of aquifers and shallow wetlands that support many listed species. Collier Enterprises proposes to almost completely surround SSA #17 with development, even completely excluding large mammals from the northern half of SSA #17 (Shaggy Cypress area). RLW will greatly diminish the value of the land "preserved" in SSA #17 for wildlife. Wildlife will be cut off from surrounding habitat; SSA #17 will be surrounded with houses, businesses, noise, lights, human activity, and cars. Such fragmentation as proposed by RLW's footprint will cause a steady degradation in diversity of species over time. Scientific studies show that species diversity spirals downward over time as less and less species will be able to survive being isolated from adjoining habitat. See *The Sixth Extinction* Chapter IX "Island on Dry land" by Elizabeth Kolbert. RLW will also be using SSA #17 for its storm water management system, and as a source for irrigation.

The dEIS should analyze and determine potential environmental effects of allowing intensive agricultural activities (row crops, housing for labor, citrus groves), recreation (including golf), and oil & gas exploration/production in the 107,000 acres that ECPO's proposes to set aside for "preservation/plan-wide activities" and very low density use. The dEIS should also analyze and determine potential environmental effects of allowing "preserved" areas (SSAs) that are currently Water Retention Areas to be used for stormwater management and other activity beneficial to the adjacent development projects.

In addition to SSAs, ECPO may be including as part of the 107,000 acres "Conservation Areas" landowners set aside as required by SFWMD to mitigate for development. For the RLW project, many of the designated "Conservation areas" are small fragmented areas, sandwiched in between residential development. Thus, many of the Conservation areas will have no value for panthers and other large mammals. The dEIS does not discuss any

criteria for these Conservation areas, such as a required connection to other primary panther habitat. (The EIS should identify the criteria for conservation areas and clarify the location and acreage of these areas.)

In evaluating potential environmental effects USFWS should consider how the "preserved" areas can be used and their location. If areas to be "preserved" are isolated or fragmented, they will have no value to the panther and little value to other wildlife. See *The Sixth Extinction* Chapter IX.

4. USFWS should evaluate science-based Alternative 4 "Issuance of ITP for Florida Panther Protection Program Review Team (PRT) Configuration" and require conditions that include PRT recommendations to the alternative selected.

The dEIS did not even consider, let alone evaluate, the optimal strategy for preservation of the panther and the other listed species—Alternative 4.

NEPA regulations require USFWS to rigorously explore and objectively evaluate all reasonable alternatives, 40 CFR 1502.14(a), and to devote substantial treatment to each alternative considered in detail. 40 CFR 1502.14(b). The dEIS compares only two alternatives—the alternative proposed by ECPO and a no action alternative. The dEIS rejected two other alternatives based on ECPO's recommendations, and did not appear to consider or analyze the two rejected alternative or any other modifications.

In the March 25, 2018 Scoping Notice USFWS stated: "The dEIS will consider a range of alternatives, including the proposed action (i.e. the issuance of an ITP to the prospective applicants, no action (non-issuance of an ITP), variations in the scope and location of the covered activities or a combination of both. It will also provide a detailed description of the proposed action and alternatives, as well as identify and analyze the potential significance of direct and indirect impacts from the proposed action and alternatives to biological resources, land use, air quality, water quality, water resources, economics, and other environmental resources. We also will consider different strategies for avoiding, minimizing and mitigating the impacts of incidental take from the proposed action." 81 FR 162201. However, the dEIS did not consider "variations in the scope and location of the covered activities or a combination of both." The dEIS also did not consider different strategies for avoiding, minimizing and mitigation the impacts of incidental take. The dEIS did not even consider, let alone

analyze the potential impacts from the rejected alternative 4. The dEIS only summarized ECPO's reasons for rejecting Alternative 4.

The dEIS states that the primary difference between Alternative 2 and the PRT Configuration Alternative 4 is that the PRT recommendation includes additional preservation areas south and north of CR 858 and southeast of the Immokalee Urban Area, buffers added along the CKS and Corkscrew system, and different configurations and widths for panther corridors. See Figure 10-1 of the ECMSHCP "PRT Recommendations for the RLSA" for a map showing the areas the PRT recommended for preservation. This is a very important difference. The PRT recommended preservation of these additional lands in order to preserve core panther habitat areas and adjacent buffers, provide corridors to connect panther habitats on public lands, and minimize future panther habitat fragmentation within the RLSA. PRT at 76. The PRT also recommended strongly against destruction of primary panther zone and that future development occur first in open lands that are within the secondary zone before lands within the primary zone are considered for development. PRT Rpt. at 76.

ECPO rejected Alternative 4 because "the PRT configured the 45,000 acres of potential future development without regard to property ownership within the RLSP "Open Areas….[A]pproximately 13,000 acres mapped by the PRT for potential future development are not owned or controlled by the ECPO, and the owners of those lands have not elected to be included in the ECMSHCP…." dEIS at 19-20. The dEIS overlooked the fact that a significant portion of the land the PRT recommended for preservation is owned by ECPO. In particular, two applicants, Collier Enterprises corporations and Barron Collier companies own a substantial majority of the land in the RLSA and could have accommodated considerable reconfiguration to avoid primary panther habitat.

The dEIS also notes that the Applicants rejected the PRT alternative because the only land owned by some Applicants are in areas that the PRT recommended be preserved. Pg. 22. Nevertheless, the Applicants could have accommodated many of the PRT recommendations, but didn't. For example, Collier Enterprises' RLW development could preserve additional land along CKS as a buffer against human interaction so that panthers will be able to travel thru CKS to FPNWR as recommended by the PRT (and also other studies by panther experts: Smith et al. 2006; Frakes et al. (2015). But Collier Enterprises rejected this.

The third reason ECPO gives for rejection of Alternative 4 is that some of the PRT's recommendations are outdated because the land is no longer available due to planning and permitting. Here, ECPO is referring to land owned by Barron Collier companies where ECPO had proposed a northern wildlife corridor. About three years ago Barron Collier decided instead to use the entire area for the Immokalee Sand Mine, which is currently undergoing permitting.

The PRT also made recommendations concerning the proposed road network to serve the 45,000 acres of Covered Activity. See Figure 19 of the PRT Report which shows the core transportation network proposed by ECPO. The PRT reported: The proposed road network includes 87.5 centerline miles of additional roads. Road density for existing and proposed new roads (excluding roads internal to the developments) nearly double the size of the existing road network. PRT Rpt. at 54. The PRT concluded that 12 proposed road segments could significantly fragment, degrade, or encroach on important habitat and movement corridors of the Florida panther. It recommended relocating 4 road segments and not building 5 roads. Further "Construction of new roads that bisect public conservation lands, HSAs, FSAs, WRAs, or areas recommended by the PRT for additional protection should be avoided." Pg. 61.

The USFWS should evaluate Alternative 4 and adopt recommendations of the PRT.

5. The dEIS fails to consider indirect effects and cummulative impacts of proposed Covered Activities on Water Resources.

The dEIS Section 3.3 only briefly discusses water resources, which for the purposes of the dEIS include surface waters, water quality/quantity, and hydrology. The dEIS explains that USFWS is going to leave the future impacts of the Covered Activities on water resources for the Corp of Engineers to determine on a project by project basis, stating: "The precise location of future impacts to waters subject to Corps jurisdiction will not be known until the nature and configuration of each project has been determined by the project proponent and the jurisdictional impacts have been permitted by Corps." Pg. 38. The ECMSHCP is a landscape-scale proposal—USFWS should analyze impacts on the regional ecosystem and in particular on water resources. A regional examination of water flow/hydrogeology, water quality and water supply is essential. Past

examination of impact on water resources on a project by project basis has resulted in tremendous water flow/hydrogeology and water resources issues in Southwest Florida. Consider, for example, the flooding of Bonita Springs for the past several years because of large developments permitted in eastern Lee County that altered the sheet flow of water. Consider the major damage to the Cocohatchee water basin that has resulted from permitting agencies only looking at impacts on a project by project basis. The no-action Alternative is the project by project approach, not Alternative 2.

The dEIS claims it is not going to consider future impacts to water resources because "the precise location" of each project is not known. However, there is considerable information and data available on the projects proposed and on projects currently being developed in the area covered by the ECMSHCP. It appears the dEIS preparers have not tried to find out more about the projects ongoing and planned in the Covered Activities area.

According to CEQ guidance on NEPA Regulations: "The EIS must identify all the indirect effects that are known, and make a good faith effort to explain the effects that are not known but are "reasonably foreseeable." (40 CFR §1508.8(b)). In the example, if there is total uncertainty about the identity of future landowners or the nature of future land uses, then of course, the agency is not required to engage in speculation or contemplation about their future plans. But, in the ordinary course of business, people do make judgments based upon reasonably foreseeable occurrences. It will often be possible to consider the likely purchasers and the development trends in that area or similar areas in recent years; or the likelihood that the land will be used for an energy project, shopping center, subdivision, farm or factory. The agency has the responsibility to make an informed judgment, and to estimate future impacts on that basis, especially if trends are ascertainable or potential purchasers have made themselves known. The agency cannot ignore these uncertain, but probable, effects of its decisions." 46 FR 18026 (March 23, 1981).

In this case, the landowners are known (ECPO) and their proposed projects are known in many cases and reasonably foreseeable in others. Indeed, USFWS is working with the landowners on the ECMSHCP and could easily get specific information from ECPO on planned projects. Two large projects are specifically known: Ave Maria, Phase 1 currently under construction (5027 acres for 11,000 homes and commercial development for estimated population of 27,170), and Rural Lands West Phase 1 (4100 acres

for 10,000 homes and commercial centers to accommodate an estimated population of 25,194 people), permitted by SFWMD and in permitting by the County. There is considerable public information on these developments in the SFWMD permitting and Collier County permitting databases. In addition, two other smaller projects in the same area as RLW are known—Hogan Island (2300 acres) and Collier Lakes (640 acres).

It is also known that RLW and Ave Maria both have a proposed phase 2. The Ave Maria Stewardship Community District was approved as 10,805 acres. Big Cypress Stewardship Community District (RLW) was approved as 21,700 acres. Other proposed towns/villages in the 45,000 acres of Covered Activity are mapped out. *See, e.g.* Figure 2.1-1 which shows the proposed areas of Covered Activities and the "2050 RLSA Concept Plan" which was developed by ECPO. The latter document can be found in Collier County website on the RLSA.[9] 2050 RLSA Concept Plan is Attached to mailed-in comments.

USFWS needs to consider the indirect and cumulative impact on regional water resources from these projects.

Hydrology and regional water flow

The specific projects named above are adjacent to CKS and CREW lands. How will the dense development along with attendant roads and other public infrastructure impact wetlands, hydrology and water flow regionally? The hydrogeology of this whole area originally relied on gravity surface flow. Intense development along the Sloughs may result in channelizing the drainage. The landowners are proposing levees/berms and chains of connected lakes which will change the hydrogeology.

The impact of replacing farm fields, which are pervious, with development over this large area needs to be understood and addressed. For example, we've recently learned of concerns about Corkscrew Swamp Sanctuary losing water more rapidly in the dry season and drying up a few months before rainy season begins. This can have a devastating impact on Corkscrew Swamp and serves as a bell-weather on other areas in eastern Collier County that may also be drying up much more than in the past. At

[9] Google Rural Lands Stewardship Area, then select 5 year review link from side panel.

the September 27, 2018 RLSA Restudy Workshop, Jerry Kurtz with the Collier County Storm water Management Section acknowledged that the County is aware of the Corkscrew Swamp issue, but said that determining and addressing causes requires a multiagency approach. His responses made clear that there is no multi-agency approach in the works and that no agency is taking the lead on figuring out the problem.

Water Supply

How will elimination of the water storage provided by the fallow farm fields during rainy season affect replenishment of our aquifer and water supply? The dEIS states that because Covered Activities would replace most of the row crop areas within the ECMSHCP boundary it expected that Alternative 2 would use less surface and groundwater than the no action Alternative. This conclusion is flawed in at least two respects. ECPO can move agricultural operations to "preservation/plan-wide areas" and these agricultural operations will draw water. Also, the County is considering adding additional credits to the RLSA program for agricultural uses, so non-EPCO participants could decide to start or expand agricultural operations. Its certainly not clear that less water would be used than the no action Alternative. Second, the dEIS failed to examine the indirect and cumulative effects of all proposed projects for the Covered Activities combined—there will be many new residents and businesses, mining operations, and possibly new farms all drawing from the aquifers.

Water Quality

As the dEIS notes there are nine impaired waterbodies (WBIDs) in the area covered by the ECMSHCP. Pg. 39. However, the dEIS has no other discussion about the impaired waters or possible impacts to impaired waters or the Florida outstanding waters into which these impaired waters flow. We know RLW will be discharging from its stormwater management system into CKS, a state impaired water for nutrients. With 10,000 new homes and several commercial centers and new roads built around internal retention ponds a storm water management system that discharges into CKS, runoff from these homes, businesses and roads will put pesticides, nutrients from fertilizers, oil and grease and other pollutants into the impaired water.

6. The dEIS fails to analyze and address the "take" of the panther in the form of "harm" as a result of the new and expanded road network necessary to support 45,000 acres of development.

The Applicants exclude new and expanded roads from the ECMSHCP and claim no responsibility for the road network necessary to support their planned developments. The dEIS accepts this and does not analyze the harm that potentially will occur from the road network necessary to support proposed 45,000 acres of dense development and 250,000 plus new residents.

The harm that will result from the ECMSHCP's plan for sprawling development of 45,000 acres includes panther-vehicle collisions and fragmentation of panther habitat such that the changes will significantly impair essential behavior patterns of the panther. Dr. Frakes did a quantitative analysis of the impacts to panther habitat from the ECMSHCP in 2018. He concluded: "Free movement of panthers north and south is essential for panther recovery. Highways and roads block panther movement and are a major cause of panther mortality. Highway underpasses and fencing are only partly effective in allowing free movement of panthers from one area to another. An analysis of adult panther home ranges shows that, although some panthers do cross highways, most resident, adult panther home ranges adjacent to major highways are limited to one side or the other and do not cross, even if the highway is equipped with underpasses…. These new roads, especially those running east and west, would impede panther movements and affect the size and shape of home ranges, potentially cutting some existing home ranges in two. Increased road kills will also occur."[10]

The 2008 US FWS Panther Recovery Plan supports this conclusion: "In addition to a direct loss and fragmentation of habitat, constructing new and expanding existing highways may increase traffic volume and impede panther movement within and between frequently used habitat blocks throughout the landscape (Swanson et al. 2005). Increases in traffic volume, increasing size of highways (lanes), and habitat alterations adjacent to key road segments may limit the panther's ability to cross highways and may

[10] Frakes, R.A. "Impacts to Panther Habitat from the Proposed Eastern Collier Multiple Species Habitat Conservation Plan: A Quantitative Analysis," (2018) at 22..

ultimately isolate some areas of panther habitat (Swan et al. 2005)." FWS 2008 Panther Recovery Report at 39-40.

ECPO proposed a road network to support the residential and commercial development of 45,000 acres. See Figure 19 of the PRT Report, showing the road network prepared by Wilson/Miller for ECPO. The road network is extensive and includes about 100 miles of new and expanded 4 and 6 lane roads in the RLSA (excluding internal roads). Certainly, more roads than depicted on this map will be constructed. There are all the roads to be constructed internal to each development. Also, the County recently added RLW's amendment to the 2040 long range transportation plan (LRTP). This amendment includes the Big Cypress Parkway, which will run north-south along the west side of RLW and through heavily used primary panther habitat just north of the FPNWR. It is known that the landowners will be pushing for this Parkway to extend to I-75 as a new interchange at some time in the future. Even back in 2009, the PRT "determined that an indirect effect of [ECPO's proposed] future development with the RLSA could be increased demand for a new [I-75] interchange in an area of occupied panther habitat. PRT Rpt. at xi. The "functionality and contiguity of panther habitat would be compromised by either of the two proposed interchange locations." PRT Rpt. at 78. The PRT strongly recommended that the concept of a new I-75 interchange receive no further consideration.

The PRT reported "Road density for existing and proposed roads (excluding all city and town streets) nearly double the size of the existing road network. . . .The proposed road network is projected to increase daily trips on these now-rural roads by magnitudes of six, seven, eight times their current rate." PRT Rpt. at 68-69. The dEIS does consider an increase in the number of miles traveled per day and determined a 339% increase in VMT would occur under Alternative 2 (2010-2060)[11] and that such an increase may lead to adverse effects on the panther. However, the dEIS doesn't consider the Applicants responsible for this take.

[11] The Conservancy of SW Florida estimates 1 million vehicle trips a day will be added to the roads in the area covered by the ECMSHCP. (Commentary, *Naples Daily News* 11-25-18).

The dEIS also did not consider at all the significant adverse effects that the new multilane highways and internal roads will have on panther home ranges and fragmentation of primary panther habitat.

Comparison of the no action Alternative with ECPO's Alternative 2 shows that the no action Alternative is projected to result in far fewer residential units and much less population increase. Thus, transportation impacts would likely be less severe under the no-action Alternative.

USFWS needs to evaluate the take that will occur from the road network needed to support 45,000 acres of intense development. ECPO owns a significant majority of the RLSA and has the ability to locate development so as to minimize the roads through areas heavily utilized by panthers, and to concentrate development so as to minimize the necessity for new roads or expanded roads. Yet, instead they propose a sprawling pattern of development and, thus far, the Applicants have not concentrated their developments. The density averages 2.4 units per acre for AM and 2.6 units per acre for RLW.

7. The dEIS fails to consider the indirect effects and cumulative impacts that the ECMSHCP's proposed development will result in development of thousands of additional acres in the RLSA beyond the 45,000 acres.

The ECMSHCP provides a 45,000 acre cap[12] on intense residential and commercial development for an estimated 240,000 new residents. The 45,000 acre cap doesn't include the acreage for new and expanded county and state roads even though the proposed roads are necessary to support the planned development. A development the size of the ECMSHCP will necessitate a large network of multilane highways.

The new roads will stimulate additional development along the sides of the highway. USFWS has determined that "Highways can also stimulate land development as far away as 2 mi (3.2 km) on either side (Wolf 1981). Thus, for each 1 mi (1.6 km) a highway is extended, 2500 ac (1,012 ha) are potentially opened to new development (Wolf 1981). 2008 Panther

[12] The RLSA program allows for 43,300 acres of development. The County is currently considering revisions to the RLSA program, but has not adopted ECPO's proposal of 45,000 acres.

Recovery Report at 39. In evaluating the proposed road network for ECPO, the PRT stated "the magnitude of the proposed development and associated traffic projections on most of these roads will convert much of this area from rural to urban in character. PRT Rpt. at 60.

The 45,000 acre cap also does not include the thousands of acres needed for public infrastructure in addition to roads (the 45,000 acres does include 10% for public infrastructure, but past development shows that 30-35% is needed for public infrastructure, according to Mark Strain, Chairman of the Collier County Planning Commission).

The 45,000 acres does not include the potential development that can occur in the RLSA on property not owned by ECPO (about 20,000 acres). With intense development of 45,000 acres and the construction of a road network, it is likely that these landowners will want to develop their property. "Given the infrastructure that will be required to serve the proposed 45,000 acres of new towns and developments, the likelihood of adjacent development outside of the ECMSHCP Covered Activities area, either as dense urban developments or ranchettes, is increased." Frakes, R.A. 2018 at 7.

The 45,000 acres does not include several sand mines in the RLSA—Lost Grove Mine, Hogan Mine and the Immokalee Sand Mine, together approximately 3200 acres—all owned by some of the applicants seeking the ITP. The acreage for these mines should be included in the 45,000 acre cap. Mining is a form of development. The PRT states that like residential or commercial development "mining constitutes a direct loss of habitat that is not compatible with the conservation of panther habitats. Pg. 22. Besides loss of habitat, mining activities can also have adverse transportation impacts.[13]

8. The EIS needs to consider the reasonably foreseeable possibility that the Southern wildlife corridor and/or the CKS

[13] For example, the Applicant for the Immokalee Sand Mine on 900 acres north of Immokalee projects mining operations will result in 183 daily vehicle trips with 65 percent of that traffic headed west on SR 82 toward Corkscrew Road and 35 percent toward SR 29. Even if the acreage is not included in the 45,000 of Covered Activities, the indirect effects caused by mining operations need to be considered by the USFWS in its jeopardy analysis.

corridor will be severed as a "changed circumstance" under ESA rules and the HCP Handbook.

Without significant revisions made to the Southern Corridor through Summerland Swamp area to make it a functional wildlife corridor and addressing the potential of development and roads in the ACSC east of SR 29 that can break the current interconnected panther habitat, it is reasonably foreseeable that the wildlife corridor ECPO is completely relying on for mitigation will cease to exist. Further, as part of the RLSA Restudy, the County is considering revising the RLSA program to provide credits for preserving agricultural land. Landowners would be incentivized to move agricultural operations into the ACSC. As has been discussed previously, agricultural land can be valuable to panthers; however, depending on how intense the operations are, this activity could result in the area being less useable as a wildlife corridor.

The dEIS refers many times to the ECMSHCP providing "permanent preservation and maintenance of large interconnected, and ecologically important blocks of habitat mosaics within the [ECMS]HCP area," and permanent preservation "of these extensive, unfragmented South Florida landscapes." E.g., Pg. 240 The dEIS relies on this as the basis to allow destruction of thousands of acres of primary zone habitat as well as habitat for the other listed species. The primary large interconnected area in the ECMSHCP is the ACSC area east of SR 29 and the Summerland Swamp area, but these areas will likely not remain interconnected because of the proposed Covered Activities in this area, and the existence of non-ECPO land discussed above. In addition, EPCO's proposes two new roads that cut across the ACSC. If this corridor is severed—this is a changed circumstance that the Applicants should address.

Also, as discussed under Section 1.A., the Applicants have not provided a functional wildlife corridor between FPNWR and CREW. If panthers cease to be able to move back and forth between these important public lands—this is a changed circumstance that the Applicants should address.

"As shown in Figs. 10 and 11, north-south pathways in the areas of the Camp Keais Strand and Summerland Swamp within the RLSA may be broken or significantly narrowed by approval of the ECMSHCP. The model predicts that the northward extension of habitat on the western side of the

RLSA (towards the Corkscrew Swamp) will be significantly narrowed and shortened (Fig. 10). This corridor was already a limited connection, which will be decimated even further by the proposed development. The fairly strong existing connection to the Okaloacoochee Slough through the eastern side of the RLSA will be completely broken, especially under Scenario 2 (Fig. 11).

Even though adult habitat connections to the north may be broken or narrowed, transient and dispersing panthers, which seem to be more tolerant of low quality habitat, may still be able to find their way north. However, it is likely that the degraded/reduced habitat along these pathways will adversely impact all north-south panther movements." Frakes, R.A. 2018 at 17.

To conclude: The Applicants' proposed development and ECMSHCP will jeopardize the continued survival and recovery of the Florida panther for all the foregoing reasons. Besides that, the dEIS is inadequate in many ways: the dEIS has based its analysis of potential environmental effects on a flawed assumption, failed to analyze indirect and cumulative impacts on water resources, failed to address the take of the panther (harm) that will result from destruction of 17,000-22,000 acres of panther primary zone and from the new and expanded road network necessary to support 45,000 acres of development, and failed to require Applicants to address the reasonably foreseeable possibility that the wildlife corridors and connected habitat so important to the panthers will be severed or fragmented. The dEIS doesn't even consider that the Applicant's proposed 45,000 acres of development will cause thousands of additional acres of development in the RLSA. Finally, the dEIS did not consider or evaluate Alternative 4—the best strategy for protection of the panther.

Sincerely,

Gaylene Vasaturo
Collier County Resident
Retired Environmental Attorney




SIERRA CLUB




Submitted via Electronic Submission

December 3, 2018

Public Comments Processing
Attn: FWS–R4–ES–2018– 0079
U.S. Fish and Wildlife Service Headquarters, MS: BPHC
5275 Leesburg Pike
Falls Church, VA 22041–3803

Re: FWS–R4–ES–2018– 0079 – Public Comments on Draft Environmental Impact Statement for Eastern Collier County Multiple Species Habitat Conservation Plan

Dear Mr. Dell,

On behalf of the Center for Biological Diversity, Conservancy of Southwest Florida, Sierra Club, and Natural Resources Defense Council (collectively "Conservation Organizations"), please accept these comments on the Eastern Collier County Multiple Species Habitat Conservation Plan (HCP), the associated incidental take permit applications, and the U.S. Fish and Wildlife Service's (Service) Draft Environmental Impact Statement (DEIS) on the HCP dated September, 2018.

As set forth below, the HCP and DEIS do not meet the requirements of the Endangered Species Act (ESA) and the National Environmental Policy Act (NEPA), and we ask you to deny the HCP and applications accordingly. The HCP has not analyzed all impacts and does not detail how Applicants have minimized and mitigated take, nor have the Applicants ensured adequate funding will be provided. The HCP will also reduce the likelihood of the survival and recovery of listed species. Furthermore, the Service failed to meet the minimum requirements of NEPA in analyzing the HCP. The Service subverted meaningful public comment, fails to analyze a reasonable range of alternatives, distorts the comparison of the two alternatives it does analyze, and chooses an alternative that fails to meet the Service's stated purpose and need. The Service also fails to evaluate whether the HCP's mitigation measures are adequate or effective, unlawfully limits the scope of analysis, and fails to take a requisite "hard look" at direct, indirect, and cumulative impacts.

These comments are based on and incorporate by reference the enclosed reports of Drs. Robert Frakes and Reed Noss, the April 25, 2016 comments of the Conservancy of Southwest Florida, the April 25, 2016 comments of the Center for Biological Diversity, and the literature and authorities cited herein, which will be provided on a CD as a supplement to these comments under a separate cover.

TABLE OF CONTENTS

I. INTERESTS OF THE COMMENTERS 5

II. PROJECT BACKGROUND 6

III. LEGAL BACKGROUND 7

A. Endangered Species Act 7
1. Section 9 Take Prohibition 7
2. Section 10 Incidental Take Permit and Habitat Conservation Plan 8
3. Section 7 Consultation 9
4. Section 7 Affirmative Conservation Mandate 11

B. National Environmental Policy Act 11

IV. THE HCP FAILS TO MEET THE REQUIREMENTS OF ESA SECTION 10 AND IMPLEMENTING REGULATIONS 14

A. The HCP Has Not Analyzed All Impacts 14
1. The HCP Fails to Describe the Impact from Habitat Loss on Listed Species 14
2. The HCP Fails to Detail Impacts to Florida Panthers from Additional Traffic and Roads Generated by the Project 21
   a. The HCP Fails to Identify and Quantify Panther Mortality Resulting From New Roads and Increased Traffic 22
3. The HCP Fails to Address Climate Change 27

B. The HCP Does Not Detail How Applicants Have Minimized and Mitigated Take 28
1. The "Preserve" Lands Will Allow Many Uses Inconsistent with the Conservation of Listed Species 28
2. The HCP Fails to Provide Mitigation for Take from Increased Panther-Vehicle Collisions 29
3. Reliance on the Panther Habitat Assessment Methodology to Conclude that the Impacts of the Proposal Will Be Fully Offset Does Not Reflect the Best Available Science 31
   a. The Best Available Science Demonstrates that the 2.5:1 Base Ratio for Preservation to Loss Fails to Ensure Impacts Are Offset 31
   b. Reliance on the Methodology to Assert Impacts are Fully Offset is Irrational on Its Face 36
4. The Best Available Science Shows That the HCP's Proposal to Mitigate Impacts to Vital Habitat Corridors for Florida Panther Will Not Fully Offset the Impacts of the Proposed Development 37
5. The HCP Fails to Account for the Impacts of Oil and Gas Development and Agricultural Intensification on the Preserve Area Lands 38
6. The HCP Overstates the Benefits of the Habitat Preservation By Failing to Account for the Existing Restrictions Already Applicable to the "Preserve Area" 40
7. The HCP Fails to Show that the Current Status and Ownership Patterns of the Preserve Lands Ensure that the Described Preservation Will Occur and Provide the Benefits Alleged 41

C. The Applicants Have Not Ensured that Adequate Funding Will Be Provided 42
1. The HCP Impermissibly Makes Restoration and Other Necessary Measures Optional and Discretionary 45
2. The Service Cannot Rely on the Discretionary Measures that Might Be Provided Under the Marinelli Fund 46
   a. Relying on the Marinelli Fund Would Improperly Delegate the Service's Duties to a Private Entity 46
   b. The Structure of the Marinelli Foundation Creates Perverse Incentives 47
   c. The HCP Fails to Show that Impacts Are Avoided, Minimized, and Mitigated to the Maximum Extent Practicable Through Measures Funded by the Marinelli Fund 48

3. The HCP Contains Inadequate Procedures to Address Economic Downturn....48

D. The Applicants Did Not Adequately Consider Alternatives Nor Explain Why Alternatives Are Not Being Utilized....49

E. The HCP Will Reduce the Likelihood of the Survival and Recovery of Listed Species....51
1. The Best Available Science Shows That Maintaining a Viable Panther Population in South Florida Requires No Further Loss of Breeding Habitat....51

F. The HCP Fails to Provide Procedures to Deal with Unforeseen and Changed Circumstances....53
1. The HCP Contains Inadequate Procedures to Deal with Landowners Dropping Out....53
2. The HCP Fails to Provide for Changes to the FWC Panther Program....54
3. Providing Assurances that No Further Mitigation Will Be Required Over a 50 –year Permit Term Fails to Meet the Requirements of ESA Section 10(a)(2)(B)(ii) and (iv)....54

V. THE SERVICE MUST COMPLY WITH REQUIREMENTS FOR INTRA-SERVICE CONSULTATION SET FORTH IN ESA SECTION 7 AND IMPLEMENTING REGULATIONS....55

A. The HCP and DEIS are Inadequate to Supply the Analysis Necessary for the Service's Biological Opinion....55
1. The Information Provided in the HCP is Inadequate to Establish Baseline Considerations....56
2. The Proposed HCP will Cause or Contribute to Jeopardy of the Florida Panther....57
   a. The Habitat Loss Caused by the HCP will Jeopardize the Continued Existence and Recovery of the Florida Panther....58
   b. The Increased Traffic Caused by the HCP Will Lead to an Increase in Panther/Vehicle Collisions and Jeopardize the Panther....64
   c. Climate Change....69
3. Reasonable and Prudent Alternatives....70

A. If the Service Finds the Project Will Not Jeopardize Listed Species, It Must Prepare an Incidental Take Statement....70
1. The Service Must Specify the Impact, Including All Direct and Indirect Impacts, Including Habitat Effects, the Number of Expected Florida Panther Injuries and Deaths, and the Effect on Recovery....71
2. The Service Must Specify Reasonable and Prudent Measures and Terms and Conditions....73

B. The Service Will Violate its ESA Section 7 Duty to Not Jeopardize the Continued Existence of the Species if it Approves the Take Caused by the Project....74

VI. THE DRAFT EIS FAILS TO MEET THE REQUIREMENTS OF NEPA....74

A. The Service Has Subverted Meaningful Public Participation on the Draft EIS....74

B. The Draft EIS's Alternatives Analysis is Inadequate....76
1. The Draft EIS Fails to Analyze a Reasonable Range of Alternatives....76
2. The Draft EIS Improperly Distorts the Comparison of Alternatives....79
   a. The So-called "Preserve" Area....79
   b. The DEIS Unlawfully Assumes that Individual Permitting Will Authorize Full Development Allowable Under the Rural Lands Stewardship Area (RLSA) and Rural Lands Stewardship Program (RLSP)....80

C. The Service's Chosen Alternative Fails to Meet the Service's Stated Purpose and Need....83

D. The Draft EIS Fails to Evaluate Whether the HCP's Mitigation Measures Are Adequate or Effective...84

E. The Service Failed to Take a Requisite "Hard Look" 85
1. The Service Adopts the HCP's Mischaracterization of Future Growth 86
2. The Service Inaccurately Describes Effects on Geology and Soils 86
3. The Service Inaccurately Describes Effects on Land Use 86
4. The Service Inaccurately Describes Effects on Water Resources 87
5. The Service Inaccurately Describes Effects on Transportation, Air Quality, and Climate Change 87
6. The Service Inaccurately Describes Effects on Cultural Resources 88
7. The Service Inaccurately Describes Effects on Bald Eagles 88
8. The Service Inaccurately Describes Effects on Crested Caracara 89
9. The Service Inaccurately Describes Effects on Florida Panther 89
10. The Service Inaccurately Describes Effects on American Kestrel, and Sandhill Crane 90
11. The Service Inaccurately Claims Development within the HCP Area Would be Capped 90
13. The Service Fails to Analyze Effects on Socioeconomics and Environmental Justice 91
14. The Service Fails to Address Scoping Comments 91

F. The Service Improperly Limits the Scope of Analysis 91

G. The Draft EIS Fails to Adequately Analyze Cumulative Impacts 92
1. Population growth and large-scale development 92
2. Climate Change and Sea Level Rise 98

VII. CONCLUSION 98

LITERATURE CITED 100

ATTACHMENT A 106

ATTACHMENT B 107

ATTACHMENT C 108

ATTACHMENT D 109

ATTACHMENT E 110

ATTACHMENT F 111

ATTACHMENT G 112

ATTACHMENT I 114

ATTACHMENT J 115

I. Interests of the Commenters

The Center for Biological Diversity (Center) is a national, nonprofit organization dedicated to protecting all species, great and small, hovering on the brink of extinction using science, law, and creative media, with a focus on protecting the lands, waters and climate species need to survive. The Center has more than one million members and supporters, many of whom live in Florida and care about the species that live here. To that end, the Center's Florida office works to protect many Florida species including the Florida panther, eastern indigo snake, Florida bonneted bat, wood stork, northern crested caracara, red-cockaded woodpecker, Everglades snail kite, and gopher tortoise.

The Conservancy of Southwest Florida (Conservancy) is a non-profit corporation headquartered in Naples, Florida. The Conservancy has more than 4,300 members in Southwest Florida. The mission of the Conservancy is to protect the environment and natural resources of Southwest Florida, including endangered species such as the Florida panther. The Conservancy pursues this mission in at least three ways relevant to the protection and restoration of the Florida panther: (1) through policy advocacy on the local, regional, state and national levels; (2) through environmental education at the Conservancy Nature Center and by naturalist-lead excursions into wilderness areas of Southwest Florida; and (3) through purchase and protection of land for conservation purposes.

The Conservancy has been engaged in policy advocacy for the protection of the Florida panther for many years, including active involvement in local land-use plan formation for the protection of panther habitat in Collier and Lee Counties. The Conservancy has conducted scientific field research focused on the Florida panther, including examining panther use of public lands in the Primary Zone and establishing benchmarks for panther prey in panther habitat being restored as part of Everglades restoration. The Conservancy's environmental education activities highlight the Florida panther as an "umbrella species," key to the protection of habitat for several other endangered and threatened species and offer opportunities to members and visitors to learn about the panther in the Conservancy Nature Center and on excursions to Florida panther habitat with the hope of viewing a panther in the wild.

The Conservancy also owns property for conservation purposes in Collier County in the area the Fish and Wildlife Service refers to as the panther's Primary Zone – the core of panther habitat. This property is used by Florida panthers and helps support their continued survival. Finally, individual Conservancy members have an aesthetic and scientific appreciation of the Florida panther in the wild and travel to areas in the Primary Zone of panther habitat in hopes of viewing and photographing the elusive panther.

The Natural Resources Defense Council (NRDC) is a non-profit environmental membership organization with more than 400,000 members throughout the United States. Over 16,000 NRDC members reside in Florida. NRDC members use and enjoy natural resources in south Florida, including nearby public lands such as the Big Cypress National Preserve, for a variety of purposes, including: recreation, solitude, scientific study, and conservation of natural resources. NRDC has had a longstanding and active interest in the protection of the nation's natural resources and endangered species like the Florida panther. For many years, NRDC has worked

with federal agencies to enhance public participation in government decision making and to protect important lands and wildlife.

The Sierra Club was founded in 1892, and is the nation's oldest grass-roots environmental organization. Headquartered in Oakland, California, it has more than 1.1 million members and supporters nationwide, including a local chapter known as Sierra Club Florida with 37,383 members. The Sierra Club's purpose is to explore, enjoy and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments. The Sierra Club is dedicated to the protection and preservation of the natural and human environment, including wildlife and endangered species such as the Florida panther and the other species covered by the HCP. Sierra Club members enjoy these species for recreation, wildlife observation, study and photography, and aesthetic, scientific and business purposes. Sierra Club members also use the public lands and waterways of southwest Florida for observing, looking for and otherwise enjoying these species, and their loss would greatly diminish Sierra Club's members use and enjoyment of these areas.

II. Project Background

On June 4, 2010, the Service received the application for the HCP from the Easter Collier Property Owners (Applicants) for an Incidental Take Permit (ITP) under Section 10 of the ESA. On March 25, 2016, the Service provided notice that it intended to gather information necessary to prepare a NEPA draft environmental impact statement for the HCP.[1] In June 2016, the Service published a draft scoping report to support its DEIS. On October 19, 2018, the Service announced the availability of its DEIS for the HCP and solicited public comment.[2] The public comment period ends December 3, 2018, 45 days after the Service published the DEIS and a revised HCP.[3] On October 29, 2018, the Center, Conservancy, and Sierra Club requested an extension of the comment period and a public hearing due to the voluminous and technical nature of the DEIS and revised HCP,[4] which the Service denied on November 6, 2018.[5]

The proposed HCP is a part of a 195,000-acre planning area, 45,000 acres of which are to be developed for residential, mining, and other uses, with 107,000 acres to be designated as so-called "preserve land" (the "Project"). The Applicants own roughly 85 percent (approximately 151,779 acres) of the land in the planning area..

The HCP is to be located in northeastern Collier County, completely surrounding the town of Immokalee. It is bordered to the south by the Florida Panther National Wildlife Refuge and the Big Cypress National Preserve; to the north and east is the Okaloacoochee Slough State Forest;

[1] 81 Fed. Reg. 16,200 (Mar. 25, 2016).
[2] 83 Fed. Reg. 53,079 (Oct. 19, 2018).
[3] *Id.* at 53,079.
[4] *See* Letter from Conservation Organizations to Roxanna Hinzman, U.S. Fish & Wildlife Service (Oct. 29, 2018), attached hereto as an Exhibit.
[5] *See* Letter from U.S. Fish & Wildlife Service to Conservation Organizations (Nov. 6, 2018), attached hereto as an Exhibit.

and west of the proposed plan area is the Audubon Corkscrew Swamp Sanctuary and Corkscrew Regional Ecosystem Watershed, thus placing it in important panther habitat.

While the HCP purports to limit development to 45,000 acres, the lands in the planning area are not exclusively owned by the Applicants; and landowners, including the Applicants, may pursue development outside of the HCP resulting in additional impacts. Therefore, it is important to note that the HCP does not provide a complete vision of development for Collier or Hendry counties. The Applicants seek to include under the ITP activities that have previously taken place within the HCP area and are "planned to continue," including agriculture, ranching, infrastructure, oil and gas exploration, off-road recreation, hunting, fishing, and transportation development for the conveyance of goods and services intrastate and interstate.

III. Legal Background

A. Endangered Species Act

The ESA is "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation."[6] Its purpose is to "provide a program for the conservation of . . . endangered species and threatened species" and "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved."[7] The Supreme Court has found through examination of the language, history, and structure of the ESA that "Congress intended endangered species to be afforded the highest of priorities."[8]

To those ends, the ESA prohibits any person from taking any species listed as endangered, and empowers the U.S. Fish and Wildlife Service to promulgate regulations prohibiting the taking of any species listed as threatened.[9] The Service has also defined "take" broadly to include all manner of harm or harassment to protected species, including both direct injury or mortality and also acts and omissions which disrupt or impair significant behavioral patterns.[10] Similarly, federal agencies are required to "carry[] out programs for the conservation of endangered species and threatened species,"[11] and to "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 adverse modification of [the critical] habitat of such species."[12]

1. Section 9 Take Prohibition

Under the ESA and its implementing regulations, it is illegal for anyone to "take" an endangered or threatened species.[13] To "take" an endangered or threatened species means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" it, or "to attempt to engage in any such

[6] 16 U.S.C. §§ 1531-1544; *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978).
[7] 16 U.S.C. § 1531(b).
[8] *Tenn. Valley Auth.*, 437 at 174.
[9] 16 U.S.C. §§ 1538(a)(1); 1533(d); 50 C.F.R. § 222.101.
[10] 16 U.S.C. § 1532(19); 50 C.F.R. § 222.102.
[11] 16 U.S.C. § 1536(a)(2).
[12] *Id.*
[13] 16 U.S.C. § 1538(a)(1); 50 C.F.R. §§ 17.21, 17.31.

conduct."[14] "Harm" includes 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."[15] "Harass" is defined as intentional or negligent actions that create a likelihood of injury to listed species "to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering."[16] Congress intended the term "take" to be defined in the "broadest possible manner to include every conceivable way" a person could harm or kill fish or wildlife.[17]

2. Section 10 Incidental Take Permit and Habitat Conservation Plan

Section 10 of the ESA provides an exception to the take prohibition by allowing the incidental take of a listed species where, "such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."[18] The Service shall not issue an "incidental take permit" ("ITP") unless a permit applicant submits a habitat conservation plan ("HCP") that specifies:

> (i) the impact which will likely result from such taking;
>
> (ii) what steps the applicant will take to monitor, minimize, and mitigate such impacts, and the funding that will be available to implement such steps;
>
> (iii) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and
>
> (iv) such other measures that the [Service] may require as being necessary or appropriate for purposes of the plan.[19]

After reviewing the HCP, the Service must make a determination that the "impact which will likely result from such taking" and the "steps the applicant will take to minimize and mitigate such impacts . . . will not appreciably reduce the likelihood of the survival and recovery of the species in the wild."[20] Before issuing an ITP, the Service must also make a finding that the application and conservation plan provide:

> (v) the taking will be incidental;
> (vi) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;
>
> (vii) the applicant will ensure that adequate funding for the plan will be provided;

[14] 16 U.S.C. § 1532(19).
[15] 50 C.F.R. § 17.3.
[16] *Id.*
[17] *See* S. Rep. No. 93-307, at 7 (1973), *as reprinted in* 1973 U.S.C.C.A.N. 2989, 2995.
[18] 16 U.S.C. § 1539(a)(1)(B).
[19] *Id.* §1539(a)(2)(A)(i)–(iv); 50 C.F.R. §§ 17.22(b)(1)(iii), 17.32(b)(1)(iii).
[20] 16 U.S.C. § 1539(a)(2)(B)(i)–(v); 50 C.F.R. §§ 17.22(b)(2)(i), 17.32(b)(2)(i).

(viii) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and

(ix) the measures, if any, required under subparagraph (A)(iv) will be met.[21]

The Service must also confirm that it "has received such other assurances" as it may require to ensure the HCP is implemented, and that the ITP contains any such terms and conditions "necessary or appropriate" to carry out the purposes of Section 10.

Prior to granting an ITP application, the Service must also undergo the consultation process with itself, as outlined in Section 7 of the ESA. In addition to its obligations under the ESA, the Service also must satisfy its obligations under NEPA before it may issue an ITP.

3. Section 7 Consultation

Section 7(a)(2) of the ESA requires federal agencies to undergo "consultation" for "any action [that] may affect listed species or critical habitat,"[22] which includes permitting actions such as issuing ITPs. If the agency taking an action (action agency) determines its action "may affect" a listed species, the action agency must initiate formal consultation with an expert agency.[23] For terrestrial and freshwater species, the Service is the expert agency. Thus, prior to issuing an ITP, the Service must consult with itself through "intra-service consultation."[24]

The ultimate purpose of Section 7 consultation is to ensure that federal actions are "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."[25] To jeopardize the continued existence of the species is to engage in an activity that either, "directly or indirectly . . . reduces 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."[26]

During consultation, the Service must analyze the effects of the proposed action on listed species and habitat, which includes the direct and indirect effects, "together with effects of other activities that are interrelated or interdependent with that action, [which] will be added to the environmental baseline."[27] The "environmental baseline" includes:

> "the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already

[21] *Id.* § 1539(a)(2)(B). The term "measures" in subsection (v) refers to "any additional measures the Secretary may require as being necessary or appropriate for the purposes of the plan." *Id.* at § 1539 (a)(2)(A)(iv).
[22] 50 C.F.R. § 402.14(a).
[23] *Id.*; U.S. Fish & Wildlife Service and National Marine Fisheries Service, Endangered Species Consultation Handbook, 2-6 (March 1998), https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf (hereinafter "Consultation Handbook").
[24] *See* Consultation Handbook at 1-5–1-6
[25] 16 U.S.C. § 1536(a)(2).
[26] 50 C.F.R § 402.02(d).
[27] *Id.* § 402.02.

> undergone formal or early Section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process."[28]

Indirect effects are "caused by the proposed action and [occur] later in time, but still are reasonably certain to occur."[29] Interrelated actions "are part of a larger action and depend on the larger action for their justification."[30] Interdependent actions "have no independent utility apart from the action under consideration."[31] The Service must also analyze the cumulative effects of "future State or private activities, not involving Federal activities that are reasonably certain to occur within the action area."[32] The Service's evaluation during consultation must be based on the "best scientific and commercial data available."[33]

At the conclusion of the consultation process, the Service must issue a "biological opinion" that "detail[s] how the agency action affects the species,"[34] and sets forth the Service's opinion as to whether the action is "likely to jeopardize" the continued existence of a listed species.[35] If the Service determines the project is not likely to cause jeopardy to the species or to destroy or adversely modify its habitat, the agency must provide a statement specifying the impact of the incidental take on the listed species, outlining "reasonable and prudent measures" (RPMs) that are necessary or appropriate to minimize the impact from incidental take, and setting forth any conditions the agency and applicant must follow in accordance with the ITP.[36] If the Service determines that the agency action is likely to jeopardize the continued existence of a listed species or result in adverse modification of critical habitat, the biological opinion must suggest "reasonable and prudent alternatives" (RPAs) that would reduce action-related impacts such that the agency action may avoid jeopardizing listed species.[37]

If the agency action is expected to cause "take," the Service must also include an incidental take statement (ITS) in its biological opinion.[38] The ITS must, wherever practicable, quantify the amount of take allowed for each species, thereby creating a meaningful "trigger" to reinitiate consultation when an allowable level of take is exceeded.[39] The Service may use a reasonable surrogate, or proxy, for take in the ITS only where it: (1) demonstrates that it cannot express anticipated take in numerical form; (2) articulates a causal connection between the surrogate and the anticipated take; and (3) "sets a clear standard for determining when authorized take has been exceeded."[40]

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[28] *Id.*
[29] *Id.*
[30] *Id.*
[31] *Id.*
[32] *Id.*
[33] 16 U.S.C. § 1536(a)(2).
[34] *Id.* § 1536(b)(3)(A).
[35] 50 C.F.R. § 402.14(h)(1)-(3).
[36] 16 U.S.C. § 1536(b)(4)(A)-(C); 50 C.F.R. § 402.14(i)(1)(ii).
[37] 16 U.S.C. § 1536(b)(3)(A).
[38] 50 C.F.R. § 402.14(i).
[39] *Id.* § 402.14(i)(1)(i).
[40] *Id.*

Compliance with a biological opinion and its ITS protects federal agencies, and others acting under or consistent with the biological opinion, from enforcement action under the Section 9 prohibition against take.[41] However, take that is not in compliance with a biological opinion or absent a valid ITS or ITP violates Section 9 of the ESA. Even after the Service issues a biological opinion, the ultimate duty to ensure that the action will not jeopardize a listed species lies with the action agency, here, also the Service.[42] An agency cannot rely on an inadequate, incomplete, or flawed biological opinion to satisfy its duty to avoid jeopardy.

4. Section 7 Affirmative Conservation Mandate

Section 7(a)(1) of the ESA sets forth a conservation mandate for all federal agencies. Specifically, "Federal agencies shall . . . utilize their authorities in furtherance of the purposes of [the ESA] by carrying out programs for the conservation of endangered and threatened species."[43] "Conservation" means "to use all necessary methods and procedures which are necessary to bring any endangered species or threatened species to the point at which [conservation efforts] are no longer necessary."[44] "Accordingly, the ESA creates an affirmative duty: it requires federal agencies take proper steps to conserve endangered species."[45] While the ESA does not mandate specific duties under the conservation mandate, "taking insignificant measures cannot satisfy the requirements under Section 7(a)(1)."[46]

B. National Environmental Policy Act

Under NEPA, every federal agency that takes a major federal action "significantly affecting the quality of the human environment" is required to create a detailed statement discussing: (i) the environmental impact of the proposed action; (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented; (iii) alternatives to the proposed action; (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.[47] When, as here, any significant environmental impacts might result from the proposed action, the agency must complete a meticulous environmental impact statement (EIS).[48]

The sufficiency and utility of an EIS rely heavily on the scope and depth of the analysis of environmental impacts. The EIS must include the full scope of environmental effects, including direct, indirect, and cumulative impacts.[49] While direct impacts are straightforward and defined

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[41] 16 U.S.C. §§ 1536(o)(2), 1538(a); 50 C.F.R. § 17.31(a).
[42] 50 C.F.R. § 402.15; *See Pyramid Lake Paiute Tribe of Indians v. United States Dep't of the Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990).
[43] 16 U.S.C. § 1536(a)(1).
[44] *Id.* § 1532(3).
[45] *Center for Biological Diversity v. Vilsack*, 276 F. Supp. 3d 1015, 1031 (D. Nev. 2017).
[46] *Id.*
[47] 42 U.S.C. § 4332(2)(C)(i)–(v).
[48] *Sierra Club v. Van Antwerp*, 661 F.3d 1147, 1153 (D.C. Cir. 2011) (citing *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983)); *see also* 40 C.F.R. §§ 1508.11, 1508.27.
[49] 40 C.F.R. §1508.25(a)(c)(1)–(3). The terms "effects" and "impacts" are used synonymously in the CEQ regulations interpreting NEPA. 40 C.F.R. § 1508.8.

as impacts that "are caused by the action and occur at the same time and place,"[50] the definitions of indirect and cumulative impacts encompass a broader collection of effects. Indirect impacts "are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."[51] Indirect impacts should have a reasonably close causal connection with the proposed action;[52] in other words, the impacts must be "sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision."[53] Indirect impacts may include "growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate" and their related impacts on air, water, and ecosystems.[54]

Cumulative impacts are "the incremental environmental impact[s] or effect[s] of the proposed action, together with impacts of past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions."[55] The definition of cumulative impacts expressly encompasses an analysis of private actions.[56] Cumulative impacts can result from "individually minor but collectively significant actions taking place over a period of time,"[57] and thus it is important to take an "environmental baseline." To that end, cumulative impacts analysis must identify:

(i) the area in which the effects of the proposed project will be felt;

(ii) the impact expected in that area;

(iii) those other actions—past, present, and proposed, and reasonably foreseeable—that have had or will have impact in the same area;

(iv) the effects of those other impacts; and

(v) the overall impact that can be expected if the individual impacts are allowed to accumulate.[58]

This type of analysis "prevents agencies from ignoring the environmental effects of other actions . . . because those effects set the baseline state of affairs and thus the context in which the significance of proposed federal action must be evaluated."[59]

Though an agency should not engage in irrational speculation about indirect and cumulative impacts when preparing an environmental impact statement, reasonable forecasting and speculation is "implicit in NEPA" and an agency must "fulfill its duties to the fullest extent

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[50] 40 C.F.R. § 1508.8
[51] *Id.*
[52] *Sierra Club v. FERC*, 2016 U.S. App. LEXIS 11744, *19–20 (D.C. Cir. 2016) (quoting *Department of Transp. V. Public Citizen*, 541 U.S. 752, 767 (2004)).
[53] *Id.* at *19 (quoting *City of Shoreacres v. Waterworth*, 420 F.3d 440, 453 (5th Cir. 2005)).
[54] 40 C.F.R. § 1508.8
[55] 40 C.F.R. § 1508.7 (emphasis added).
[56] *Id.*; *see also Sierra Club v. United States Army Corps of Eng'rs*, 803 F.3d 31, 50 (D.C. Cir. 2015) ("[P]rivate action is expressly encompassed in the cumulative action analysis . . . .").
[57] 40 C.F.R. § 1508.7.
[58] *Sierra Club*, 2016 U.S. App. LEXIS 11744 at *26–27 (quoting *Taxpayers of Michigan Against Casinos [TOMAC] v. Norton*, 433 F.3d 852, 864 (D.C. Cir. 2006)) (internal quotation marks omitted).
[59] *Sierra Club*, 803 F.3d at 51.

possible."[60] This "rule of reason" does not wholly absolve an agency of the duty to forecast impacts in good faith based on available information; in fact, it has an overriding statutory duty to do just that.[61] The D.C. Circuit court has explained that upon judicial review, it will not allow agencies "to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry,'" but instead it will hold them to compliance "to the fullest extent possible."[62]

With these definitions and principles in mind, it is clear that NEPA analysis should include environmental impacts from growth-inducing effects caused by a proposed project.[63] The Council for Environmental Quality (CEQ) has stated that in the case of proposed development:

> It will often be possible to consider . . . the development trends in that area or similar areas in recent years . . . . The agency has the responsibility to make an informed judgment, and to estimate future impacts on that basis, especially if trends are ascertainable . . . . The agency cannot ignore these uncertain, but probable, effects of its decisions.[64]

In other words, an agency must consider reasonably foreseeable future developments, including transportation infrastructure, and analyze the impacts stemming from those developments.

Environmental Protection Agency (EPA) NEPA guidance provides a helpful example. To illustrate that cumulative impacts include "broad range . . . activities and patterns of environmental degradation" such as increased development trends,[65] it provides as a prototypical example the cumulative effect of transportation infrastructure and other development, which often results in habitat fragmentation and direct species mortality from road kills.[66]

Complete NEPA analyses should include environmental impacts from growth-inducing effects of projects, such as increased commercial activity, growing networks of roads, and stimulation of more, high-intensity land uses.[67] These impacts include road mortality. In *Sierra Club v. Van*

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[60] *Del. Riverkeeper Network v. FERC*, 753 F.3d 1304, 1310 (D.C. Cir. 2014) (quoting *Scientists' Institute for Public Information, Inc. v. Atomic Energy Com.*, 481 F.2d 1079, 1092 (D.C. Cir. 1973)).
[61] *Atomic Energy Com.*, 481 F.2d 1079 at 1092.
[62] *Del. Riverkeeper Network*, 753 F.3d at 1310*; Atomic Energy Com.*, 481 F.2d 1079 at 1092.
[63] *See, e.g., TOMAC*, 433 F.3d at 858–859 (finding an agency's environmental assessment supplement "thorough and reasonably conducted" where it predicted the pattern and extent of residential and commercial growth induced by construction of the proposed casino as well as air-quality impacts including "vehicle emissions resulting from increased traffic associated with indirect development throughout the region"); *see also Mich. Gambling Opposition v. Kempthorne*, 525 F.3d 23, 27 (D.C. Cir. 2008) (analyzing an environmental assessment that analyzed, among many things, "the possibility that the casino would increase local traffic" which would in turn result in delays).
[64] Memorandum to Agencies: Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026 (March 23, 1981), *available at* http://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf.
[65] Consideration of Cumulative Impacts in EPA Review of NEPA Documents, EPA 315-R-99-002 *11–12 (EPA, May 1999), *available at* https://www.epa.gov/sites/production/files/2014-08/documents/cumulative.pdf.
[66] *Id.* at *12.
[67] *See, e.g., Citizens for Smart Growth v. Sec'y of the DOT*, 669 F.3d 1203, 1215 (11th Cir. 2012) (finding Department of Transportation's analysis of indirect impacts sufficient where it considered and addressed stimulation of commercial growth as an indirect environmental impact).

Antwerp,[68] the D.C. Circuit court found that the Army Corps of Engineers (Corps) violated NEPA by failing to analyze and respond to fragmentation impacts on the eastern indigo snake caused by construction of a mall, which the Corps' issuance of a Clean Water Act Section 404 dredge-and-fill permit enabled.[69] Specifically, the court found the Corps' issuance of the Section 404 permit would enable construction of a mall in an important wildlife corridor, which would significantly fragment eastern indigo snake habitat, which in turn would expose eastern indigo snakes to increased road mortality.[70] Because the Corps did not address this potential adverse impact when it arrived at its finding of no significant impact (FONSI) under NEPA, the court found that it had failed to comply with NEPA's environmental analysis requirements.[71]

IV. The HCP Fails to Meet the Requirements of ESA Section 10 and Implementing Regulations

The HCP does not meet the minimum requirements of Section 10 of the ESA and its implementing regulations. The HCP has the potential to impact many imperiled species, including eight federally protected species—the Florida panther, Florida bonneted bat, eastern indigo snake, Florida scrub jay, northern crested caracara, wood stork, red-cockaded woodpecker, and Everglades snail kite—and species that are candidates or under review for federal protection—the gopher tortoise, eastern diamondback rattlesnake, and gopher frog. The HCP fails to specify the impacts to the species that will likely result from the take caused by the Applicants. Specifically, it fails to adequately identify and describe take caused by habitat loss and fragmentation, and the impact of additional roads and increased traffic. It then fails to adequately explain how the so-called preserve lands, which themselves may be subject to conversion and uses that are incompatible with listed species conservation,, will offset the loss of habitat. These failures make impossible a finding that the HCP minimizes and mitigates impacts to the maximum extent practicable. The HCP also fails to ensure adequate funding to support the plan, and does not provide procedures to deal with unforeseen circumstances. It also does not provide alternatives to the proposed action. It is evident that the HCP will appreciably reduce the likelihood of survival and recovery of listed species.

A. The HCP Has Not Analyzed All Impacts

The HCP fails to characterize the nature and extent of take that will occur, particularly take resulting from habitat loss and fragmentation. It also fails to address how the Project will necessitate the construction of new roads and create a massive volume of additional traffic and the impacts that will have on imperiled wildlife, particularly the Florida panther. Finally, the HCP still fails to adequately address climate change.

1. The HCP Fails to Describe the Impact from Habitat Loss on Listed Species

[68] 661 F.3d 1147 (D.C. Cir. 2011).
[69] *Id.* at 1149, 1155–1157.
[70] *Id.* at 1156–1157.
[71] *Id.* at 1157.

The HCP takes an unlawfully narrow "harassment only" view of take for covered species, which fails to characterize the true nature and extent of take that will occur.[72] ESA Section 10 requires that a habitat conservation plan include a description and analysis of anticipated take of covered species resulting from both direct take and indirect take.[73] It must also include a description of the type of take, including injury, mortality, harassment, and harm.[74] While harm can include an act that directly "kills or injures wildlife," it "may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."[75]

Furthermore, though it may appear from an isolated reading of ESA Section 10 that environmental analysis for an incidental take permit is limited to the actions of the permit applicant only, this is not so. The decision to grant an incidental take permit under Section 10 must be made, in part, "using the same standard as found in section 7(a)(2) of the Act."[76] Because the issuance of a Section 10 permit is a federal action, the Service must first consult with itself under Section 7(a)(2) to ensure that no species' existence will be jeopardized if the permit is issued.[77] Thus, the Service's habitat conservation plan guidance has explained that the Service should undergo a "concurrent, integrated" analysis to determine whether a habitat conservation plan complies with Section 7 and Section 10.[78] Through this analysis, the Service must address direct and indirect project effects as part of the integrated Section 10 procedure.[79] For example, if its action will cause the destruction of tree cavities used by bats for hibernacula, it must analyze that action for direct effects—the direct destruction of hibernation habitat and potential direct take of hibernating bats—as well as indirect effects—the indirect harm to bats who no longer have habitat in which to hibernate.[80] If these types of direct and indirect effects—considered cumulatively with surrounding activities, interrelated and interdependent activities,

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[72] 16 U.S.C. § 1539(a)(2)(A)(i)–(iv).
[73] U.S. Fish and Wildlife Service & National Marine Fisheries Service, Habitat Conservation Planning and Incidental Take Permit Processing Handbook, 12-2 (Dec. 21, 2016), https://www.fws.gov/endangered/esa-library/pdf/HCP_Handbook.pdf [*hereinafter* HCP Handbook].
[74] *Id.*
[75] 50 C.F.R. § 17.3
[76] H.R. Conf. Rep. No. 97-835, at 29 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2860, 2870.
[77] U.S. Fish & Wildlife Service and National Marine Fisheries Service, Endangered Species Consultation Handbook" Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act, 2-4, https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf [*hereinafter* Consultation Handbook]; HCP Handbook at 1-9. A "no-jeopardy" finding for all federally listed species is a prerequisite for issuance of an incidental take permit. HCP Handbook at 4-3–4-4 ("In the past, some HCP practitioners viewed the section 7 consultation 4-4 for the section 10(a)(1)(B) permit as an independent review process that occurs after the HCP has been prepared. However, this approach often left the permit applicants and the section 7 biologists with no guarantee that the process of meeting the requirements of section 10(a)(1)(B) would result in issuance of the permit, since a section 7 consultation conducted late in the process could result in the discovery of unresolved issues, the return of an inadequate HCP to the applicant, or a jeopardy biological opinion."); 3-27 ("For species covered by an incidental take permit, the biological opinion informs the "not appreciably reduce the likelihood of the survival and recovery of the species in the wild" issuance criterion").
[78] HCP Handbook at 2-9, 2-2, 4-4, 15-5; *see also* 8-4 ("Conducting section 7 analyses concurrently with HCP development helps us better negotiate take levels in the HCP and identify appropriate units to enumerate take.").
[79] HCP Handbook at 3-16; *see also* HCP Handbook at 3-2 ("The standard for determining whether activities are likely to result in incidental take is whether take is "reasonably certain" to occur in considering both the direct and indirect impacts of the activities.").
[80] HCP Handbook at 8-2.

and the environmental baseline[81]—are serious enough to result in jeopardy and are not adequately addressed in the HCP, the permit must be denied.[82]

The HCP fails to characterize the nature and extent of take that will occur, and it also fails to characterize the full range of impacts caused by such take. For example, the HCP does not acknowledge harm to the Florida panther and eastern indigo snake that will result from permanent habitat destruction, replacement and fragmentation of habitat with internal roads, and increased traffic induced by development. But for the development proposed in the HCP, a larger network of roads would not be needed or built and there would be less need for increased traffic to enter the area. Because increased development of transportation infrastructure and increased traffic result in increased habitat loss, habitat fragmentation, and vehicle-caused species mortality, these impacts—whether caused by agents of the Applicants or other individuals—must be analyzed under the ESA prior to issuing an incidental take permit.[83]

For example, the HCP fails to characterize take of Florida panther associated with permanent habitat destruction from the Covered Activities and related roadways. The Covered Activities in the HCP will cause more than 45,000 acres of habitat loss in the most important area for the Florida panther through development and the construction of roads. The entire project falls within the panther's Primary or Secondary Zones, defined by the Service's Florida Panther subteam of the Multi-species/Ecosystem Recovery Implementation Team as "all lands essential for the survival of the Florida panther in the wild" and "lands contiguous with the Primary Zone, and areas which panthers may currently use, and where expansion of the Florida panther population is most likely to occur." (Kautz et al. 2006).

Because the extent of Florida panther habitat is declining, and less habitat remains than previously thought, Frakes et al. (2015) recommends "that all remaining breeding habitat in south Florida should be maintained, and the current panther range should be expanded into south-central Florida." Yet the HCP does not acknowledge take via harm to the Florida panther caused by the permanent habitat destruction and fragmentation in the Primary and Secondary Zones, which are areas that are crucial to the species for essential survival behaviors such as feeding, breeding, and sheltering.

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[81] 50 C.F.R. § 402.14(g)(4) (requiring the Service to "evaluate the effects of the action" and "[f]ormulate its biological opinion as to whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species"); 50 C.F.R. § 402.02 ("Effects of the action refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration."); *id.* ("Cumulative effects are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.")

[82] HCP Handbook at 12-6 ("If we conclude that the incidental take permit would result in jeopardy or destruction/adverse modification of critical habitat, we cannot issue the permit."); *see* HCP Handbook at 4-3–4-4.

[83] See 16 U.S.C. § 1539(a)(2); 50 C.F.R. §§ 17.22(b)(1)-(2), 17.32(b)(1)-(2).

The HCP also fails to characterize the nature and extent of take of Florida panther that will occur in connection with the fragmentation and road mortality resulting from internal roads and increased traffic induced by development. Large mammalian carnivores, like the Florida panther, are particularly vulnerable to habitat loss and fragmentation because of their relatively low numbers, large home ranges, and interactions with humans (Noss 1996 entire, Woodroffe 1998 entire). Their low fecundity and long generation times result in reduced levels of genetic variation (Roekle 1993 entire, Lu 2001 entire). Habitat loss and fragmentation can lead to increased mortality (Jules 1998 entire); reduced abundance (Flather and Bevers 2002 at 40-56); disruption of the social structure of populations (Ims 1999 at 839-849, Cale 2003 entire); reduced population viability (Harrison and Bruna 1999 at 225-230, Srikwan 2000 entire, Cale 2003 entire, Lindenmayer 2006); isolated populations with reduced population sizes and decreased genetic variation (Frankham 1996 entire). Loss of genetic variation may reduce the ability of individuals to adapt to a changing environment; cause inbreeding depression (Ebert 2002 entire); reduce survival and reproduction (Frankham 1996 entire, Reed 2003 entire); and increase the probability of extinction (Saccheri 1998 entire, Westmeier 1998, Kramer-Schadt 2004 entire, Letcher 2007 entire, Ruiz-Gutierrez 2008 entire, Sherwin 2000).

A 2009 study concluded the anthropogenic influences—primarily road density and vehicular traffic—can substantially affect the population dynamics of large carnivores with large home ranges, like the Florida panther (Hostetler 2009 entire). Habitat fragmentation and anthropogenic barriers to movement have limited the dispersal capability of species, reducing gene flow among populations and resulting in genetically distinct populations (Dixon 2007 at 455-464). Large carnivores may be much more susceptible to losses in genetic variation due to habitat fragmentation because of their large home ranges, low population densities, and long generation times (Paetkau and Strobeck 1994 entire, Johnson et al. 2001). Isolation is reinforced when travel between subpopulations is limited due to significant barriers, such as high-volume roads (Paetkau 1997 entire, Mader 1984 entire, Brody and Pelton 1989, Proctor et al. 2002 entire, Voss et al. 2001 entire, Keller 2003 entire, Gerlach and Musolf 2000 entire, Trombulak and Frissell 2000 entire, Coffin 2007 at 396-403). Thus roads and other anthropogenic obstacles cans substantially reduce gene flow among populations (Dixon et al. 2007 at 455-464, Kyle and Strobeck 2001 at 343-346, Walker et al. 2001 entire, Ernest et al. 2004).

The HCP also fails to account for take of Florida panther through increases in intra-specific aggression as panthers are squeezed into smaller remaining areas of habitat; increased human-panther interactions caused by encroaching development, which will inevitably lead to removal of individuals from the wild; and possibility of injury or death during land management practices such as forest thinning or prescribed fire.

The HCP also fails to account for the nature of take that will occur for the eastern indigo snake by failing to account for road mortality and injuries caused by the increasing number of roads and increased traffic associated with the activities in the Covered Areas, taking into account the characteristics of the eastern indigo snake that makes it susceptible to road kills and the attributes of foreseeable roadways in the project area that will increase the likelihood of road kills. Roadways are a pervasive part of urban development, and though they have a relatively small footprint, their impacts are devastating and far-reaching for reptiles like the eastern indigo snake (Andrews et al. 2006, entire; Clark et al. 2010, entire). Roads directly kill wildlife through road fatalities and indirectly through habitat fragmentation, genetic isolation, pollution, and a host of

other impacts (Fahrig and Rytwinkski 2009, entire; Jochimsen 2006, entire; Shwiff et al. 2007, entire; Seiler and Helldin 2006, entire; Shepard et al. 2008, entire; Shepherd et al. 2008, entire). As America's transportation network expands, so does the wildlife death toll, with estimates as high as 1 million direct vertebrate fatalities along America's roadways each day (Andrews et al. 2006). Likewise, tens to hundreds of millions of snakes are killed annually by vehicles on roads in the United States (DeGregorio et al. 2010, at 441). Enge and Wood (2002) estimate that approximately 1.4 million snakes are killed annually in Florida, and they indicate that estimate is likely low (Enge and Wood 2002, at 376; Santos et al. 2011, entire).

Herpetologists have long recognized the "irreparable landscape alteration from the nation's transportation infrastructure," (Andrews and Gibbons 2005) and studied the physical and behavioral traits of reptiles and amphibians that make them particularly susceptible to road mortality (Andrews et al. 2006, entire). The eastern indigo snake's physical characteristics and behavior patterns make it highly susceptible to road mortality (Andrews et al. 2008, at 127). Because eastern indigo snakes are long-lived, have large home ranges, and are large-bodied, they are more likely to succumb to vehicle collisions, and this threat may result in such a significant loss of individuals that it threatens the sustainability of impacted populations (Andrews et al. 2008, at 127).

A species' life history can impact the frequency and severity of road mortality impacts. Long-lived species with delayed sexual maturity are especially vulnerable to increases in adult mortality, and because many reptiles are long-lived road mortality can severely impact their populations (Row et al. 2007 at 122). Road mortality can have a particularly pronounced negative effect on long-lived snakes like the eastern indigo (Row et al. 2007, entire). Because of these negative effects, Row et al. (2007) concluded: "[I]f no measures are taken to decrease road mortality, it is probable that many populations of long-lived species in close proximity to roads will go extinct or at least experience significant declines."

Natural behaviors also make certain species like the eastern indigo snake more susceptible to road mortality (Andrews et al. 2006, at 15–21). These behaviors include movement-associated behavior, such as speed and immobilization defenses; daily movement patterns; migration; breeding and nesting; movement to hibernation sites; dispersal; defensive behavior; foraging behavior; and communication and social behavior (Andrews et al. 2006, at 15–21). Many of the eastern indigo snake's behaviors and traits make it more likely to be negatively impacted by road mortality. For instance, the eastern indigo snake is a wide-ranging species that travels as far as 224 hectares, which means this snake is much more likely to encounter roads and the associated risks of direct mortality or isolation (USFWS 1999, at 4-571; Andrews et al. 2006, at 19–20). Additionally, snake species that move frequently over long distances have been observed to experience higher mortality than more sedentary species (Andrews et al. 2008, at 123). Long-distance movers, like the eastern indigo snake are also particularly sensitive to edge effects (Andrews et al. 2008, at 123, citing Breininger et al. 2004). Species that depend on large areas of non-fragmented landscape to complete their life cycles are in greatest jeopardy (Andrews et al. 2008, at 123). Enge and Wood (2002) predict that slow-moving species and active species with large home ranges will experience future declines in area due to cumulative road mortality and increased traffic (Enge and Wood 2002, at 377).

The eastern indigo snake's natural behaviors also put it at additional risk for road mortality once it reaches a roadway. While some species of snake avoid crossing roads, larger snakes like the eastern indigo are less likely to exhibit this avoidance behavior, which places them directly in the path of traffic (Andrews and Gibbons 2005, entire). This readiness to cross may only be exacerbated during mating season, when the willingness of reproductive snakes to cross roads reduces the barrier effect of the roads but also increases the chance of mortality for these classes (Row et al. 2007 at 122; Andrews et al. 2006, at 18–19). Eastern indigo snakes may also readily cross roads when the road's placement fragments foraging areas, separating the snakes from important food sources (Andrews et al. 2006, at 21).

Once on the road, the eastern indigo snake's mode of movement, speed, and defensive behaviors make it less likely it will successfully cross without being subject to a vehicle collision (Andrews et al. 2006, at 20). Andrews and Gibbons (2005) investigated the behavior of various species of snake near roads and found that the eastern racer (*Coluber constrictor*), a species of snake that shares the subfamily *Colubrinae* with the eastern indigo snake, readily crosses roads (Andrews & Gibbons 2005, at 778). In another road-mortality study, DeGregorio et al. (2010) found that of five snake species recovered, most of them were eastern racers. A large proportion of the eastern racers found by DeGregorio et al. were gravid, and they hypothesized that the gravid snakes were highly impacted by road mortality because of their large home range size and propensity to seek out nesting sites (DeGregorio et al. 2010, at 445). The findings of Andrews and Gibbons and Degregorio et al. could indicate that the subfamily of snakes to which the eastern indigo snake belongs could have traits that make them more susceptible to road mortality.

Andrews and Gibbons (2005) also identified specific features of snake movement and defensive behaviors that made certain species more likely to be impacted by road mortality. They concluded that species with higher mass-to-length ratios (thick-bodied snakes) are more likely to cross roads at a slower rate of speed, subjecting them to a higher risk of road mortality when they cannot cross quickly enough to avoid collision (Andrews & Gibbons 2005, at 776–780). The scientists found that even snakes that rely on rapid flight to escape predators (e.g., *Coluber constrictor*) exhibited higher immobilization responses to oncoming vehicles than hypothesized (Andrews & Gibbons 2005, at 779–780). Because eastern indigo snakes are heavy-bodied snakes and members of the subfamily *Colubrinae*, they may have characteristics that may make them more likely to cross roads at slower rates, causing great harm and even jeopardy (Row et al. 2007, entire).

Impacts from road-mortality are compounded by other road-related impacts that are less readily measureable but still significant (Andrews et al. 2006, at 4). For instance, the isolating nature of roads can lead to population-level impacts, such as skewed population structure via altered sex ratios and composition of age classes and restricted gene flow that results in decreased genetic diversity (Andrews et al. 2008, at 131; Clark et al. 2010, entire). Because eastern indigo snakes are long-lived, the negative impacts of these effects may take decades to become apparent, at which point it may be too late to remedy them.

While the eastern indigo snake's characteristics make it more likely to suffer the ill effects of roads, there are also compounding characteristics of people and the roads themselves that contribute to the negative impacts. Roads with higher speeds, heavier traffic, and lower visibility can be devastating to nearby herpetofauna. Breininger et al. (2012) found that habitat

fragmentation is likely a critical factor for the eastern indigo snake's persistence and that eastern indigo snakes are vulnerable to extinction in conservation areas bordered by roads and developed areas. Though the snake's chances of survival can be quite high in conservation core areas, its survival rates significantly decline in conservation areas along highways and in suburbs (Breininger et al. 2012, at 365). More than half of known snake mortalities documented in the study were caused by humans, directly or indirectly, along roads (Breininger et al. 2012, at 365).

Additionally, because snakes are a maligned group of animals, humans are more likely to intentionally kill them when they are easily visible on the roadway (USFWS 1999, at 4-567; Andrews et al. 2006, at 24–25). Snake researchers in Louisiana have reported that 30% of drivers will change lanes to intentionally kill a snake and 10% will back over the snake again to ensure it is dead. (Schlierf et al., undated, at 16).

Overall impact of road mortalities and numbers of eastern indigo snakes taken by vehicle impacts are likely understated. Visual-observation studies of road kill rates are likely to produce results much lower than actual road kills that occur. Based on a study of road kills on radio-telemetry tagged snakes, Row et al. (2007) estimate that 2 of every 3 road kills are not found (Row et al. 2007 at 122). This disparity in detection of road kills may be attributable to scavengers, which can rapidly remove carcasses from the road and cause underestimation of mortality (Hubbard and Chalfoun 2012, entire). Additionally, the covert nature of many herpetofaunal species makes sampling and studying the negative impacts of roads challenging (Andrews et al. 2006, at 22), and eastern indigo snakes are highly cryptic.

The Covered Activities in the HCP will require the construction of new roads, promote the need for additional roads, and increase the amount of traffic on those roads. Because of the eastern indigo snake's high vulnerability to road mortality and other related impacts of these roads, the HCP must account for take in the form of road mortality and injury, and habitat loss and fragmentation; however, the HCP has failed to do so.

The failure to account for direct and indirect take of eastern indigo snake from roads has also led to the HCP failing to mitigate such impacts. Experts have proposed using proactive planning to avoid or minimize these impacts (Andrews et al. 2006, at 74–76). Some have found that road placement can be the most important factor when considering the severity of road impacts on wildlife because it influences road kill rates and locations, as well as visibility of species when they are on the road (Andrews et al. 2008, at 121; Andrews et al. 2006, at 31). Thus the HCP should take into account location, density, and distribution of roadways; traffic density; seasonal changes in traffic use; and species movement when considering road-related impacts and determining how they can be minimized and mitigated to the maximum extent practicable (Andrews et al. 2006, at 31–34).

The HCP also fails to account for all forms of take for the Florida bonneted bat. Focusing only on harm and harassment, the HCP fails to account for direct take in the form of injury or death from felling roost trees with bonneted bats inside, as well as deaths and injuries during land management practices such as forest thinning and prescribed fire. The HCP also fails to support its apparent assertion that take in the form of harassment will only occur from Covered Activities even though the Preservation/Plan-Wide Activities and Very Low Density Use areas will be used for agriculture, development, oil and gas exploration and production, and other human activities

that are likely to cause light and noise and recognized by the HCP itself as potential causes of harassment.

2. The HCP Fails to Detail Impacts to Florida Panthers from Additional Traffic and Roads Generated by the Project

The HCP fails to assess the take that will result from the proposed development causing increased roads and traffic. Indeed, the HCP attempts to disclaim responsibility for this obvious form of impact to the species resulting from the Applicants' activities.[84] After disclaiming any obligation to compensate for such impacts, the HCP asserts that the plan "will provide a source of funding for land preservation and activities that will help address the risk of such collisions, such as construction of additional wildlife crossings under and fencing along roadways."[85] The HCP neither quantifies nor in any manner gauges the magnitude of increased panther vehicle mortality that will result from increased roads and traffic induced by their proposed developments. And instead of determining what mitigation measures are necessary to fully prevent or compensate for that increased mortality, and providing specific mitigation plans to undertake those measures, the HCP provides only a discretionary mechanism (the Marinelli Fund) through which some unspecified amount of mitigation measures (wildlife crossings) *might* be implemented depending on the funding generated.

Despite disclaiming responsibility for vehicle collisions even on the new roads constructed specifically for the housing development,[86] the HCP nonetheless purports that such roads will be designed to reduce harm to panthers. The HCP states that minimization measures will include: "Designing internal road networks and roadway design elements within the lands designated for Covered Activities to minimize the potential for future panther-vehicle collisions."[87] Paradoxically, the HCP thus concedes that the roads they will build through panther habitat foreseeably will result in vehicle collisions in places that at present obviously have no roads and no potential for collisions, yet disclaims any actual obligation to fully offset that impact, or demonstrate mitigation to the maximum extent practicable.

The DEIS similarly attempts to obscure the conclusion that increased vehicle trips per day resulting from the applicants' proposed developments will increase Florida panther mortality from vehicle collisions. Nonetheless, it makes the cursory admission that: "The USFWS considered an increase in the number of trips per day, and determined such an increase may lead to adverse effects on the FP."[88] There is no explanation of the USFWS analysis, and no further characterization of the extent of the adverse effects resulting from the increased number of trips per day. The DEIS provides an assessment of the increased traffic volumes that will result from

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[84] *See, e.g.*, HCP at 33 n. 12, 66 ("[T]he permits and Plan do not anticipate that the Covered Activities will cause, and therefore do not cover, panther-vehicle collisions . . . .").
[85] *Id.*; *see also id*. at 110 (stating that the Marinelli Fund will provide for easement purchases to facilitate wildlife crossings).
[86] *see* HCP at 33 n.12.
[87] HCP at 109. Notably, the HCP provides no indication of how that will be accomplished, what principles are used to guide such minimization, nor how effective such minimization is likely to be.
[88] DEIS at 91; *see also id*. at 86 (explaining that under the no action alternative "an increase in the number of trips per day is expected to increase FP mortality from vehicle strikes).

issuance of the ITP,[89] but does not in any manner connect the projected increase in traffic volume to the anticipated adverse effects on panthers.[90]

In addition to failing to fully characterize the impacts of the taking, as required by 50 C.F.R. § 17.22(b)(1)(iii)(A), the failure to disclose the actual extent of the "adverse effects on FP" resulting from the proposal causing an increase in road trips, despite the fact that the Service apparently evaluated the effects, also violates NEPA requirements to disclose and analyze the impacts of the proposed action, and to provide the public with opportunities to comment on its evaluation. Furthermore, the HCP fails to assess the amount of mitigation necessary to address those impacts, and to either provide mitigation to fully offset them or otherwise show that they have been offset to the maximum extent practicable.

a. The HCP Fails to Identify and Quantify Panther Mortality Resulting From New Roads and Increased Traffic

With regard to the Florida panther, the HCP Applicants purport to be seeking take coverage only for the "harassment" of panthers that will occur during construction activities and as a result of land conversion that will displace panthers from their habitat.[91] The HCP applicants improperly attempt to sever this take from the other forms of take that will be caused from the very same construction and land conversion activities. Critically, the applicants do this in an attempt to evade analysis of the impacts of new roads and increased traffic caused by their development activities that will increase Florida panther mortality from vehicle collisions. The law makes clear that harm from vehicle collisions caused by increased traffic generated by the development is an effect of the construction[92] of the proposed developments, and must be included in the consideration of take from the proposed activities.

With regard to the ESA's definition of take, the Supreme Court in *Sweet Home* made clear that "the statutory term 'harm' encompasses indirect as well as direct injuries." Specifically with regard to ESA section 10, the Court observed that "Congress had in mind foreseeable rather than

[89] *See* DEIS at 75-76.

[90] The DEIS asserts that the HCP will "help avoid and minimize transportation-related impacts to the FP by preserving habitat away from highways, preserving habitat corridors that help to minimize the roadway crossing areas used by the FP, and preventing development in areas that might otherwise result in increased traffic. According to the ECMSHCP, the plan would provide land preservation, through perpetual easements on both sides of key roadway segments, that would make the construction of more fenced wildlife crossings possible through the FDOT Work Program, the Marinelli Fund, or otherwise." DEIS at 91. The DEIS makes no attempt to evaluate whether these measures will be adequate to fully offset the adverse impacts from increased vehicle mortality, or to assess the extent of the residual impact in terms of increased panther mortality from vehicle collisions.

[91] *See* HCP Appendix A-1.In the breakdown of covered activities, the proponents describe temporary habitat loss effects only. Instead of addressing the impacts associated with permanent habitat loss in this breakdown, there is a single-line reference in it that states only "SEE PANTHER-DEV PAGE." HCP Appendix A-1. It's unclear what exactly that is a reference to.

[92] *Babbitt v. Sweet Home*, 515 U.S. 687, 697-98 (1995).

merely accidental effects on listed species" with regard to what was encompassed in the concept of incidental take.[93]

The HCP Handbook makes clear that in assessing the scope of incidental take resulting from the applicant's activities, applicants should consider both direct and indirect impacts of those activities. "The standard for determining whether activities are likely to result in incidental take is whether take is 'reasonably certain' to occur in considering *both the direct and indirect impacts of the activities*."[94] "The 'reasonable certainty' standard does not require a guarantee that a take will result, rather, only … a rational basis for a finding of take. …The standard is not a high bar and may be readily satisfied [.]"[95] "The Services should advise project proponents to consider both the direct and indirect effects of their activities."[96] The definition of "indirect effects" referred to in the HCP Handbook is the definition in the Service's regulations governing consultation, which states: "Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur."[97]

The Handbook also makes clear that the permit should address the full scope of the take that will result from the proponent's activities. "The amount of take the permit authorizes should be commensurate with the effects of the incidental take caused by the project throughout the analysis area (see Chapter 6.3.1), plus any take that results from mitigation activities."[98] "If there are potential indirect effects attributable to implementation of the proposed HCP covered activities, the HCP should incorporate contingency measures that address how those impacts will be remediated and provide the funding assurances for such measures."[99]

Further, liability for take is attributable to an actor whose actions are the actual and proximate cause of the harm.[100] Strict but-for causation is not required.[101] Courts have found that proximate causation turns on whether the harm to the species is a reasonably foreseeable result of the activity.[102] The mere fact that the effect on the species takes place through the actions of

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[93] *Id.* at 700; see also Nat. Res. Def. Council v. Zinke, No. 105CV01207LJOEPG, 2018 WL 4705942, at *15 (E.D. Cal. Sept. 28, 2018) ("the fact that the 1982 amendments to the ESA permitted the issuance of permits for takings Section 9 would otherwise prohibit 'if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity,' strongly suggested that Congress understood Section 9 to prohibit indirect as well as direct takings." (summarizing Babbitt v. Sweet Home)).
[94] Handbook at 3-2 (emphasis added).
[95] *Id.* at 3-3 (quoting 80 Fed. Reg. 26,832).
[96] *Id.*
[97] 50 C.F.R. § 402.02.
[98] Handbook at 8-5.
[99] Handbook at 11-9.
[100] *See, e.g., Strahan v. Coxe*, 127 F.3d 155, 164 (1st Cir. 1997) ("The causation here, while indirect, is not so removed that it extends outside the realm of causation as it is understood in the common law."); see also *Aransas Project v. Shaw*, 775 F.3d 641, 659-60 (5th Cir. 2014) (acknowledging that an indirect causal relationship may satisfy the proximate causation requirement).
[101] *Nat. Res. Def. Council v. Zinke*, No. 105CV01207LJOEPG, 2018 WL 4705942, at *16 (E.D. Cal. Sept. 28, 2018) ("strict but-for causation cannot be required under the circumstances. Any other finding would exclude categorically from Section 9 liability any party whose conduct is individually insignificant, but is collectively significant, no matter how foreseeable to each of the individual actors the collective consequences of their actions.").
[102] *See, e.g., Aransas Project v. Shaw*, 775 F.3d at 663.

other parties does not break the causal chain where the activity in question is the "stimulus" for their conduct.[103]

Notably, in evaluating ITP applications in the past, the Service has clearly found increased vehicle collisions resulting from increased traffic induced by a development to be take of Florida panthers indirectly caused by the construction of the development.[104] In the Biological Opinion for an ITP that would cover "the construction of a mixed-use, nonresidential, commercial/industrial office park complex," for development on only 240 acres, the Service expressly stated that it "anticipates take from indirect effects on the panther in the form of harassment and harm because of potential increases in traffic and intraspecific aggression."[105] Even though the development encompassed only 240 acres, and the proposed activity was the construction of the development, the Service evaluated effects of the development over a 25-mile radius from the project site to capture direct and indirect effects on panthers.[106]

Here, it is abundantly clear that the Applicants' proposed activities are the actual and proximate cause of panther/vehicle collisions from new roads and increased traffic. But for the proponents replacing panther habitat with new internal roads, no vehicle collisions would take place in that habitat. And it is obviously reasonably foreseeable that such collisions will take place, as the HCP itself purports to describe design measures – albeit insufficient design measures – to reduce the potential for those very collisions.

Similarly, the increased traffic and need for new state roads and highways that will result from replacing panther habitat with housing developments and other types of development obviously would not take place if the applicants left the land in question as habitat rather than turning it into new housing, resulting in a projected addition of at least 182,960 more vehicles on the roads of eastern Collier County.[107] That projection is based on the commonsense premise that the HCP proponents placing at least 91,480 new housing units on panther habitat will result in at least

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[103] *See Animal Prot. Inst., Ctr. for Biological Diversity v. Holsten*, 541 F. Supp. 2d 1073, 1078-79 (D. Minn. 2008) (rejecting argument that conduct of parties regulated by government defendant "is an independent, intervening cause that relieves the [defendant] of liability" for causing take).

[104] *See, e.g.,* USFWS, Biological Opinion for Issuance of a Section 10(a)(l)(B) incidental take permit to Citygate Development, LLC and CG 11, LLC for the Florida panther and red cockaded Woodpecker (March 30, 2009) (Attached as Ex. _).

[105] *Id at 1, 5*; *see also id*. at 59 ("considering the project traffic projections, the Service believes that the increase in traffic generated by the project may potentially contribute to an increase in injury and harassment of panthers."), and 63 (incidental take statement) ("the Service anticipates take in the form of harassment and harm due to potential increases in traffic and intraspecific aggression").To mitigate for the impact of that take, the HCP proposed and the ITP included a requirement that the permittee construct a wildlife crossing. See id. at 60 ("the Applicants will construct a wildlife crossing on CR 846 at a location that has had four panther mortalities over the last 10 years. This crossing should reduce panther vehicular mortality and mitigate for impacts to the panther at the Project site."); City Gate ITP (July 1, 2009) at 4–5 (setting forth terms for funding assurance and completion deadline for new wildlife crossing to be provided by permittee as mitigation). In the Citygate Biological Opinion, the Service stated that it could not quantify the take associated with increased traffic. *See, e.g*., BiOp at 63. However, as discussed below, for a slightly larger project, the Service did indeed quantify the take. *See* Biological Opinion for Argo Corkscrew Crossing (Jan. 2018) at 4, 15-16 (construction of residential development on a 395 acre parcel). The size of the proposed development at issue here is thus vastly greater than prior projects where the Service has shown that it can quantify the take from induced increases in traffic.

[106] *See id*. at 6, 55.

[107] Noss Report at 11; see also DEIS at 75-76 (showing increased traffic volumes under action alternative).

91,480 families with an average of two cars per home occupying those housing units.[108] That adding those vehicles and population to areas of panther habitat will result in more vehicle trips is a plainly foreseeable outcome of building new housing to attract those buyers and establish a new community. Again, that increased traffic is plainly reasonable foreseeable, as the DEIS concedes that the Service found that increased vehicle trips due to the proposed activities would have an adverse impact on panthers. Further, the HCP proponents' activities, replacing panther habitat with new housing communities, clearly are the stimulus for bringing additional drivers to live and work in the area, and to use highways and roads in manner that will foreseeably lead to increased panther-vehicle collisions on those roads.[109]

Moreover, for other projects building residential developments in Florida panther habitat, the Service itself has demonstrated that estimating the expected take due to increased vehicle collisions from increased traffic (more vehicle trips) caused by the development is possible.[110] This shows not only that such take is reasonably foreseeable, but also that it can be quantified. For Argo Corkscrew Crossing, the Service quantified the number of deaths by assessing the average rate of panther deaths per year on roads affected by the project in light of the prevailing number of vehicle trips on those roads, and then multiplying that estimate by the proportional increase in vehicle trips on each road that would result from the residential development.[111] The

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[108] Notably, the estimate of a projected addition of at least 182,960 more vehicles likely underestimates the actual increase in vehicles on the roads in the HCP area that will result from the proposed activities. The anticipated 91,480 new dwelling units reflects a density of 2.03 units per acre, but the HCP itself states that it arrived at that figure based upon densities for Ave Maria and Rural Lands West, which reflect an overall density of 2.5 dwelling units per gross acre. HCP at 33. Ave Maria is actually 2.18 units per acre, and Rural Lands West is proposing 2.43 units per acre. Thus it appears that the actual number of new dwelling units could be considerably higher than 91,480. A density of 2.5 units per acre would result in 112,500 units. Independently, the HCP underestimates the new population that will be added to the area by assuming there will be 1.9 persons per household. In contrast, the U.S. Census Bureau's 2012-2016 estimate for persons per household in Collier County is 2.58. U.S. Census Bureau, https://www.google.com/url?q=https://www.census.gov/quickfacts/fact/table/colliercountyflorida/HSD310216%23viewtop&sa=D&ust=1543589605134000&usg=AFQjCNHOj0dfdLcnTgaMmxDzae76nF-65A.

[109] The HCP proponents cannot evade liability by arguing that it is up to the state or federal authorities to regulate speed limits to correct the problem that the HCP proponents themselves have stimulated. Plainly, it would still be the actions of the HCP proponents creating the need for such additional regulation in the first place by making the roads in question even more dangerous to panthers. "An independent intervening cause 'is one the operation of which is not stimulated by a situation created by the actor's conduct. An act of a human being or animal is an independent force if the situation created by the actor has not influenced the doing of the act.'" *Animal Prot. Inst., Ctr. for Biological Diversity v. Holsten*, 541 F. Supp. 2d 1073, 1079 (D. Minn. 2008) (quoting Restatement (Second) Torts § 441). Here, actions by the state and federal agencies governing roads are not an independent action that causes the harm in question regardless of the HCP proponents' conduct.

[110] *See, e.g.*, Biological Opinion for Argo Corkscrew Crossing (Jan. 2018) at 15-16. Using the Service's methodology which looks at Average Annual Daily Trips (AADT) and panther mortality to estimate possible future roadkill mortalities, we approximate that the 50 year HCP would result in about 1,276 panther mortalities. We utilized available AADT for existing roads within the RLSA, which was from 2006, showing an estimate of 129,867,000 daily trips over a five year period. There were 16 panther roadkill mortalities in the RLSA from 2001-2006. This equate to 1 panther death for every 8.1 million trips, as a conservative estimate since there were 30 panther roadkill mortalities in the same area from 2011-2016. Using an incremental approach in which there would be 825,000 new daily trips on RLSA roadways by 2050, we estimated 573.5 deaths in the first 31 years of the permit (assuming that trips ramps up linearly over time), and 703 deaths in the last 19 years of the permit. This totals 1,276.5 panther roadkill mortalities from the 45,000 acres of mining and development, based on the Service's methodology.

[111] *See id.*

DEIS provides an assessment of the increased traffic volumes that will result from issuance of the ITP, but does not take the necessary next step of using those increased volumes along with estimates of panther-vehicle collisions on those roads, to calculate the number of additional panther deaths that will result from the proposed development activities.[112] Moreover, analyzing the impacts of 45,000 acres of development in a footprint nearly identical to the submitted HCP, the PRT found that the HCP Covered Activities would add 1 million daily traffic trips by 2050.[113] The HCP would increase daily traffic trips on one segment of SR 29 from 7,100 daily trips in 2011 to 23,686 by 2050,[114] and on another segment of SR29 from 19,100 daily trips in 2011 to 44,499 by 2050,[115] a magnitude increase of 3.8 and 2.9 respectively.[116] On Corkscrew Road, the daily traffic trips would increase by 23.5 times the magnitude, from 14,500 trips in 2011 to 44,886 in 2050.[117]

This shows that it is plainly possible, applying methods employed by the Service itself, to use available estimates of how the HCP will increase the number of daily trips on these specific roadways where panther-vehicle collisions have occurred to predict how the present rate of panther mortality for those roadways will proportionally increase due to the activities under this HCP.

Further, because the take can indeed be quantified in terms of additional panther mortality, the use of a habitat surrogate instead would be improper because it would not capture direct panther mortality but only habitat lost.[118] Moreover, quantifying take in terms of panther vehicle collisions would actually facilitate meaningful monitoring of whether the purported mitigation provided by the plan is actually achieving its intended effect of keeping panther deaths below increased level anticipated by these estimates, whereas reliance on a habitat surrogate would not because there would be no independent accounting of vehicle collisions.

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[112] *see* DEIS at 75-76. Further, the increased traffic used to quantify panther mortality should be measured relative to the baseline of a true no action scenario where the proponents' development does not occur at all, not relative to the purported no action alternative in the DEIS, which actually describes a scenario where proponents are responsible for causing additional traffic by building sprawling lower density developments, not a scenario where they undertake no development.

[113] Florida Panther Protection Program Panther Review Team, 2009. Technical review of the Florida Panther Protection Program Proposed for the Rural Lands Stewardship Area of Collier County. P. 54, 68-69. By 2050, PRT estimated 400,000 additional daily trips on existing roads + 425,000 daily trips on new roads.

[114] Segment of SR29 north of SR82.

[115] Segment of SR29 south of SR82.

[116] Florida Panther Protection Program Panther Review Team, 2009. Technical review of the Florida Panther Protection Program Proposed for the Rural Lands Stewardship Area of Collier County. Table 6.3-1.

[117] *Id*.

[118] *See* HCP Handbook at 8-3. The HCP Handbook states: "The HCP must identify the impacts likely to result from the proposed incidental take. It must include defined units to quantify impacts in terms of taking a number of affected individual animals or acceptable habitat surrogate units within the plan area. These same units are used on the permit to specify the authorized levels of incidental take… To use a surrogate measure, we must:

- describe the causal link between the surrogate and take of the covered species,
- explain why it is not practical to express the amount or extent of anticipated take or to monitor take-related impacts in terms of number of individuals, and
- set a clear standard for determining when the level of anticipated take has been exceeded."

In sum, increased panther-vehicle collisions caused by new roads and increased vehicle trips are a "reasonably certain" and "reasonably foreseeable" effect of the proposed activities, and can be quantified in terms of the number of panther deaths. The HCP proponents cannot escape responsibility to identify, avoid, minimize, and mitigate for this category of take resulting from the activities for which they seek incidental take authorization by purporting that they are not liable for this category of effects.

Even if the increased panther mortality resulting from increased traffic and roads was not take requiring coverage under the sought Incidental Take Permits, it would nonetheless be an impact of the same acts of taking for which the applicants are seeking ITPs. The acts of taking for which the Applicants seek ITPs include construction and land conversion that will disturb and displace panthers, causing them to travel across roads where they are vulnerable to vehicle collisions. Furthermore, the Applicants' activities will cause the construction of more roads where these vehicle collisions can occur. Additionally, the land conversion to housing and other development will cause increased traffic by attracting significant numbers of people to an area where they would otherwise have no reason to be; indeed, attracting new homeowners is the entire purpose of the land conversion. These acts are what constitutes the otherwise prohibited taking.[119] ESA Section 10 requires that "the applicant will, to the maximum extent practicable, minimize and mitigate *the impacts of* such taking."[120] Thus, Section 10 requires avoidance, reduction, and compensation for all impacts to the species caused by the same act that results in injury to the species constituting take. Therefore, regardless of whether the traffic related impacts in and of themselves constitute take, they nonetheless are "impacts" of the same type of taking that the HCP proponents concede will occur, and therefore must be minimized and mitigated to the maximum extent practicable.

3. The HCP Fails to Address Climate Change

The HCP continues to treat climate change as a potential "changed circumstance" and suggests that many impacts due to climate change cannot be predicted over the 50-year life of the permit, and those impacts that can be predicted would not require new measures to be implemented. The climate change section fails to analyze changes in temperature, precipitation, and sea level rise that will alter ecological thresholds for many of the species in the area, even though "[e]cological thresholds are expected to be crossed throughout the region, causing major disruptions to ecosystems and to the benefits they provide to people." (Karl 2009 at 115). Climate change will increase the incidence and severity of both drought and major storm events in the southeast (Karl 2009 at 111-116).

The percentage of the southeast region experiencing moderate to severe drought has already increased over the past three decades. Since the mid-1970s, the area of moderate to severe spring and summer drought has increased by 12 percent and 14 percent, respectively. Fall precipitation tended to increase in most of the southeast, but the extent of region-wide drought still increased by nine percent (Karl 2009 at 111). For example, drought and severe storms could threaten the

[119] *See* 50 C.F.R.§ 17.3 (defining "harm" and "harassment" to include the "act" that results in injury, not merely the injury itself).
[120] 16. U.S.C. § 1539(a)(2)(B)(ii) (emphasis added).

Florida black bear with habitat alteration, altered vegetation, and altered prey base and food availability (Seager 2009 entire).

The warming climate will likely cause ecological zones to shift upward in latitude and altitude and species' persistence will depend upon, among other factors, their ability to disperse to suitable habitat (Peters 1985 entire). Because of some of the species' already limited range and the high degree of development in the surrounding area, there is likely no suitable habitat where the species could disperse, making climate change a dire threat to their survival.

The HCP acknowledges that climate change will result in significant habitat loss outside the HCP area to Florida panthers and other species.[121] Problematically, the HCP fails to acknowledge that as a result, the lands within the HCP Covered Activities area will be of increasingly elevated importance to the survival and recovery of the Florida panther. The HCP asserts it properly addresses climate change by "protecting…biologically important inland habitats."[122] But the HCP entirely fails to consider whether additional avoidance in the Covered Activities Area may become necessary in light of the increased importance of the inland habitat. The HCP also entirely fails to consider whether additional mitigation measures throughout the HCP area, such as habitat restoration or wildlife crossings, will be necessary in light of the increased dependence of the Florida panther populations on the inland areas within the HCP.

B. The HCP Does Not Detail How Applicants Have Minimized and Mitigated Take

The HCP fails to support its assertion that it will minimize and mitigate impacts to listed species to the maximum extent practicable. ESA Section 10 requires incidental take permit applicants "to the maximum extent practicable, minimize and mitigate the impacts of . . . taking."[123] However, neither the HCP nor the DEIS support the Applicants' apparent assertion that they have minimized and mitigated impacts to the maximum extent practicable, as required under the ESA.

1. The "Preserve" Lands Will Allow Many Uses Inconsistent with the Conservation of Listed Species

As a general matter, the lands designated for Preserve/Plan-Wide Activities and Very Low Density Use will allow many uses that are inconsistent with the conservation of listed species, including agriculture, development, and oil and gas exploration and production. Moreover, even if the lands were to be wholly conserved and restored, many areas are "islands" amid a sea of development in the Covered Areas. Because these fragments of habitat are isolated from the larger parcels, they should be considered lost to impacts from the Covered Areas.

More specifically, the HCP fails to minimize and mitigate impacts to the Florida bonneted bat caused by habitat loss to the maximum extent practicable. The HCP states that 5,100 acres of

[121] HCP at 275–276.
[122] *Id.* at 276.
[123] 16 U.S.C. § 1539(a)(2)(A)(ii), (B)(ii).

habitat, 2,571 acres of which is roosting habitat, will be lost to covered activities, and that 65,425 acres of existing habitat will be preserved in perpetuity, including 25,000 acres of freshwater herbaceous wetlands for foraging.[124] The HCP does not describe the total amount of roosting habitat to be "preserved." However, the DEIS acknowledges that the Florida bonneted bat will lose approximately half of its roosting habitat in the HCP area, which is located in the consultation area and focal areas to the species,[125] and that the loss of roosting habitat would be "offset" by "permanent preservation of approximately 43 percent of the HCP area containing large contiguous forested systems that would provide roosting habitat, interspersed with open area that would provide foraging habitat (approximately 16 percent of the HCP area)."[126] Neither the DEIS nor the HCP provide support for the finding that "preserving" approximately 43 percent of foraging habitat "offsets" the loss of 50 percent of foraging habitat in the Covered Areas, which represents a net loss of 50% of important habitat for the species' survival. The HCP and DEIS also fail to explain how allowing agriculture, development, oil and gas exploration and production, and other uses on the "preservation land" will affect its viability as land intended to offset negative impacts to the species.

Likewise, the HCP fails to support that the purported "preservation" of the 107,000 acres will adequately minimize and mitigate impacts to the eastern indigo snake to the maximum extent practicable. As the HCP explains, the Preservation/Plan-Wide Activities and Very Low Density Use areas may be used for development and agricultural uses. In fact, the HCP explains that "a minimum of 32,260 acres of . . . agricultural land uses will be preserved under the Plan."[127] At the same time, the HCP concedes that "[t]he vast size of the row crop fields and citrus groves within the HCP do not generally provide suitable habitat mosaics" for the eastern indigo snake and that row cropping creates conditions "that are highly unfavorable to the snake."[128] Given the poor suitability of agricultural lands and the highly unfavorable condition of row crops to solely support eastern indigo snakes, the HCP utterly fails to explain how "preserving" agricultural land minimizes and mitigates impacts to the eastern indigo snake caused by destroying roughly 2,203 acres of its native upland habitat and 2,897 acres of native wetland habitat in the Covered Area.[129]

The HCP also fails to explain how lands designated for "Preservation/Plan-Wide Activities and Very Low Density Use" will offset loss of land designated for Covered Activities, much of which is within core foraging area for nearby wood stork colonies.[130] Moreover, it does not explain how the "preservation" lands, which will be permitted to be used for agriculture, development, oil and gas exploration and development, and other intensive uses, will offset the loss of wet, foraging habitats.

2. The HCP Fails to Provide Mitigation for Take from Increased Panther-Vehicle Collisions

[124] HCP at 225.
[125] DEIS at 82.
[126] DEIS at 82–83.
[127] HCP at 223.
[128] *Id.* at 222.
[129] *Id.* at 222–223.
[130] *Id.* at 216.

Neither the proposed habitat preservation nor the vaguely defined and uncertain promises to provide possible wildlife crossings through the Marinelli Fund can be relied upon by the HCP proponents to demonstrate that the take from increased vehicle collisions will be either fully offset or mitigated to the maximum extent practicable.

First, neither the HCP nor DEIS actually assess the impact of the proposed activities on increasing panther-vehicle collisions in terms of increased fatalities per year anticipated, even though this impact is readily available and capable of being quantified. In the absence of that necessary assessment, it is impossible for the HCP proponents to assert that they have provided enough mitigation to either fully offset those impacts or even offset them to the maximum extent practicable.

Second, even if the proposed land preservation compensated for the impacts from habitat loss (which it does not), that would not compensate for the additional impacts of increased panther deaths from the new traffic and roads caused by the development on that habitat. The Panther Habitat Assessment Methodology, which the HCP proponents rely on to assert generally that impacts of their activities are fully offset by the maintenance of the proposed preservation areas, does not result in calculation of the amount of extra habitat that must be preserved to account for the traffic-induced impacts of the proposal at hand.[131] The traffic related component of the Panther Habitat Assessment Methodology does not account for the traffic-inducing effects of the proposal itself, but rather is an attempt at correcting the Methodology's initial assumption about the how much privately owned habitat is necessary to preserve to ensure its target of supporting 90 panthers---to account for impacts to panthers that will occur during a five year window from activities that *do not themselves involve habitat loss factors.*[132]

Further, it is notable that the Methodology's adjustment appears to lack a biological basis. The base ratio's adjustment to include mitigation for the effects on panthers from increased traffic is calculated by assessing the cost of adding one wildlife crossing every year for five years, and converting that cost into acres by assuming an acre is worth $8500. *See* Methodology at 2. Though the Methodology refers to this as a "habitat surrogate,"[133] there appears to be no biological connection between the amount of habitat preservation it requires and the extent of impacts to panthers from the increased traffic generation. It is unclear how the assumption that increased traffic from projects without habitat loss factors will necessitate 1 new crossing per year relates to the amount of panther mortality that will be avoided by that crossing, or to how much panther mortality will be generated as a result of the increase in traffic.[134]

In any event, the HCP does not actually provide *any* assessment to determine how much additional habitat preservation would be required to compensate for the traffic-inducing effects of the proposal. The HCP lacks any projection of the number of crossings that would be needed,

[131] It is not at all clear whether the HCP proponents are asserting that habitat preservation in ratios according with the Methodology provides offsets for the traffic impacts. The HCP provides no analysis to even attempt to show that such offset has been provided, and indeed repeatedly repudiates that there is an obligation to address this form of take at all.
[132] *See* Methodology at 2.
[133] *Id*.
[134] *See* Noss Report at 10–14.

which is necessary to determine how many acres would be needed as a surrogate, or when they would be built, or why preserving land is a valid substitute for crossings at all in light of the fact panther/vehicle collisions are the number one cause of known deaths and they will be increased tremendously by this project.[135]

Finally, the HCP purports that wildlife crossings and other "additional" measures provided through the Marinelli Fund will mitigate the impacts from increased traffic. However, the HCP does not provide any certainty as to how many crossings, if any, will actually be provided compared to how many will be necessary to mitigate the fatalities from increased traffic, when the crossings will be built compared to the time that they will be necessary to avoid fatalities, or whether there will actually be enough funding to build those crossings at the times when the fatalities from increased traffic will result.[136] In evaluating whether the mitigation will offset the impacts from increased vehicle traffic and roads, the Service cannot ignore that providing crossings in the long-term will not address short-term impacts that may harm the population long before the crossings are ever constructed.[137] Nor is there any demonstration that it is not practicable to actually provide the number of crossings at the points in time that would be necessary to mitigate the increased vehicle collision fatalities.

Moreover, reliance on potential future mitigation actions taken through the Marinelli Fund and by the Florida Department of Transportation is improper because an HCP applicant cannot rely on unenforceable measures, nor on plans for conservation efforts by non-applicants.[138]

The HCP has thus failed to adequately characterize the take that will occur as a result of their activities. It also fails to demonstrate these effects will be either fully offset or minimized and mitigated to the maximum extent practicable.

3. Reliance on the Panther Habitat Assessment Methodology to Conclude that the Impacts of the Proposal Will Be Fully Offset Does Not Reflect the Best Available Science

a. The Best Available Science Demonstrates that the 2.5:1 Base Ratio for Preservation to Loss Fails to Ensure Impacts Are Offset

The HCP and the DEIS both rely on the Panther Habitat Assessment Methodology, last revised in 2009, to conclude that the impacts of the proposed habitat destruction will be offset merely by

[135] *See* Noss Report.
[136] *See* Noss Report at 14–15. As discussed more below, the HCP disclaims any need to provide these measures through binding requirements or even set forth specifically what measures will occur, and concedes that they are entirely discretionary and subject to funding availability. *See* HCP at 286.
[137] *See, e.g.,* Klamath-Siskiyou Wildlands Center v. NOAA, 99 F.Supp. 3d 1033, 1058–59 (N.D. Ca 2015) (finding that take would not appreciably reduce survival or recovery was arbitrary where the take would be offset by mitigation that would occur in the long-term, but the species could be wiped out in the short-term, before any benefits from long-term habitat mitigation would accrue).
[138] *See Klamath-Siskiyou Wildlands Center*, 99 F. Supp. 3d at 1050–52, 1053–54.

preserving other existing habitat in the HCP area.[139] That reliance is misplaced because the Methodology no longer reflects consideration of the best available scientific information regarding the quantity and relative value of remaining panther habitat in South Florida. For example, research published in 2015 by Dr. Robert Frakes et al.[140] demonstrates that the base ratio established in the Methodology is inadequate to ensure that habitat loss will be fully offset, and to ensure that development will not jeopardize the survival and recovery of the species. The HCP asserts that the impacts of the proposed development on panthers will be "fully offset" by the maintenance of lands in the "Preserve Area" because the amount of Panther Habitat Units (PHUs) generated by potentially placing those areas under conservation easements exceeds the number of PHUs necessary to mitigate for the impacts to lands within the "Covered Activities" area. The DEIS echoes, "According to the analysis described in the ECMSHCP, Section 4.2.2, the plan provides more than sufficient mitigation to offset potential FP habitat impacts. The total number of PHUs provided through preservation of conservation lands would exceed required PHU compensation levels, as calculated by the USFWS Panther Habitat Assessment Methodology."[141]

The Panther Habitat Assessment Methodology is used by the Service during ESA Section 7 consultations to determine the amount of habitat preservation required to minimize the impacts of projects on the Florida panther resulting from habitat losses due to development. The Methodology turns on ensuring that enough habitat to support a population of 90 panthers in South Florida will be preserved from destruction. The Methodology starts by evaluating how much "primary habitat equivalent" acres are necessary to preserve a population of 90 panthers.[142] Using an estimated habitat requirement of 31,923 acres per panther of "primary habitat *equivalent*" lands, the Methodology turns on ensuring that 2,873,070 acres of "primary habitat equivalent" land will remain available to the species (31,923 acres/panther x 90 panthers).[143] The Methodology then determines the acreage of primary habitat equivalent already being conserved, and subtracts that amount from 2,873,070 acreage to determine the acreage of privately held habitat that must be prevented from destruction.[144] In assessing how much "primary habitat equivalent" acreage is present in conserved and privately owned areas, the Methodology assumes that each acre of secondary panther habitat is equivalent to 0.69 acres of primary zone habitat in terms of the value provided for the support of the population.[145] The Methodology then calculates the proportion of privately held habitat that must be preserved relative to the amount that can be lost without the total amount of "primary zone equivalents" falling below 2,873,070 acres.[146] That proportion forms the basis for the "base ratio" that the Service uses to determine

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[139] *See* U.S. FWS, Panther Habitat Assessment Methodology, September 24, 2012 *available at* https://www.fws.gov/verobeach/MammalsPDFs/20120924_Panther%20Habitat%20Assessment%20Method_Appendix.pdf ("Methodology"). As stated in the 2012 document, the Methodology was last revised in 2009, but was described in full in the September 2012 document.

[140] Frakes RA, Belden RC, Wood BE, James FE (2015) Landscape Analysis of Adult Florida Panther Habitat. PLoS ONE 10(7): e0133044, at 14, *available at* https://doi.org/10.1371/journal.pone.0133044.

[141] DEIS at 92. Notably, other portions of the DEIS state that the adverse impacts from the proposal are only "*partially* offset by habitat compensation." DEIS at 89 (emphasis added).

[142] *See* Methodology at 1.

[143] *See id.*

[144] *See id*.

[145] *See id*. at 1, 11 Tables PM3 and PM4.

[146] *See id*. at 1.

how many acres of habitat a project proponent must preserve as mitigation to compensate for habitat that will be destroyed. The Methodology calculates that the proportion is that 1.98 acres of "primary zone equivalents" must be maintained for every acre of primary zone equivalent that is lost. The Service then makes a series of adjustments to that figure to account for other factors. These adjustments increase the ratio for preservation by about 25%, such that the final base ratio factor is that 2.5 acres of privately owned "primary zone equivalent" must be protected for every acre of it that is developed.

The research of Frakes et al. 2015 demonstrates that key assumptions used in the above calculation are not supported by the best available science. First, Frakes (2015) demonstrates that an acre of secondary zone habitat does not provide a habitat value to the panther population equivalent to 0.69 acres of primary zone habitat because the secondary zone lands "are of little value to support a breeding population of Florida panthers."[147] This means that the assessment of the total amount of "primary habitat equivalents" already conserved (2,073,865 acres) is inflated by as much as 212,950 acres.[148] Consequently, the total acreage of private lands that must be preserved to ensure the minimum of 2,873,070 acres is maintained is at least 212,950 acres too low, and should be 1,012, 155 acres of primary zone equivalent instead of 799,205 acres (212,950 + 799,205= 1,012, 155 acres of primary zone equivalent).[149] Further, the total estimate of undeveloped privately owned primary zone equivalent habitat is inflated by 347,402 acres because it includes secondary habitat that actually is of little use to breeding panthers; thus the total area of privately owned primary habitat equivalent should be no more than 855,297 acres (1,202,699 acres-347, 402 acres).[150] The consequence is that instead of the base ratio being 799,205 acres/ (1,202,699 acres – 799,205 acres) = 1.98, the reality is that no primary zone equivalent habitat can be lost. Instead of there being a *surplus* of 403,494 acres which can be lost as long as the remaining 799,205 is preserved (resulting in a ratio of preservation to loss of 799,205/403,494 = 1.98), the calculation would show that there is actually a *deficit* of 156,858 acres (1,012,155 acres – 855,297 acres) between the remaining amount of privately owned undeveloped habitat and the amount required to sustain 90 panthers. As a consequence of that reality, mitigation must not merely protect other primary zone habitat, but rather would have to actually restore areas in order to offset the impact from loss of primary zone breeding habitat. In short, the "base ratio" system only makes sense where there is a cushion of "primary zone equivalent" habitat in private ownership that can be lost without the net amount of habitat dropping below what is required to maintain 90 panthers. Frakes 2015 demonstrates the reality that there is no such cushion because the secondary zone provides little value to support the breeding population.

Moreover, in addition to demonstrating that secondary zone habitat is of little use to support the breeding population, Frakes et al. 2015 concludes that adult breeding habitat has been reduced..[151] This only exacerbates the problem described above. The rationale underlying the base ratio turns on there being a surplus of habitat to meet its minimum population target. Frakes et al. shows that there is no such surplus because, in addition to the reasons described above

[147] Frakes et al. 2015 at 15.
[148] *See* Methodology at 11 Table PM-3.
[149] *See id*. at 1.
[150] *See id.* at 11 Table PM4.
[151] Frakes (2015) at 15.

regarding the limited value of secondary zone habitat, areas identified as primary zone have been degraded in terms of their ability to support breeding adults.

The HCP's assertions about the adequacy of conservation of the Preserve Area to fully offset for the impacts of the proposal therefore are not based on the best available science. Nor is the DEIS's assertion that the mitigation will be sufficient to offset the impacts from habitat loss based on the best available science. Further, the Service's failure to analyze the HCP's reliance on the 2012 Methodology's base ratio rationale in light of the new scientific information from Frakes 2015 is arbitrary and capricious, and violates NEPA's requirements to take a hard look at the impacts of the proposal and to use the best available science.[152]

Even if some small amount of the secondary habitat could indeed be counted towards the total of primary zone habitat equivalents, it would be inconsistent with the best available science to rely on the 2012 base ratio without recalculating it to ensure that the underlying rationale that there is a cushion of habitat remains valid, and to determine what increase in the ratio is required to demonstrate that impacts are minimized. [153]

Reliance on the Methodology to assert that impacts are offset is also unsupportable based on the best available science because the Methodology's adjustment of the base ratio to account for additional habitat loss (1) was limited to a projection of loss over only five years (2009-2014), and (2) does not make up for the enormous disparity identified by Frakes et al. 2015 between the amount of primary zone equivalent habitat that the Methodology relies on and the actual amount of habitat supporting breeding adults, largely as a result of overvaluing the secondary zone. First, the Methodology, acknowledging that habitat destruction outside Federal review might occur, increases the base ratio from 1.98 to 2.23 to account for an estimated 7,410 acres per year of loss from projects the agency would not be aware of.[154] The adjustment to account for loss is limited to a five-year window, and therefore only takes into account the effect of 37,000 acres of habitat loss (7,410 acres/yr x 5 yrs).[155] Consequently, the adjustment only accounted for habitat loss between 2009 and 2014, and the resultant base ratio cannot rationally be applied to activities that will be taking place long outside that five year window, and which are being authorized outside that five year window.

Here, the proposed ITP term is *50 years*, and the base ratio, under the logic of the Methodology, would have to be adjusted to account for 50 years of additional unreported habitat loss. Any attempt to rely on the Methodology's base ratio without making such an adjustment would

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[152] NEPA requires agencies to ensure the "scientific integrity[] of the discussions and analyses in [EISs]." 40 C.F.R. § 1502.24, accord 40 C.F.R. § 1500.1(b) (requiring "accurate scientific analysis"). An agency violates NEPA where its analysis is based on a factual inaccuracy. Oregon Nat. Desert Ass'n v. Jewell, 840 F.3d 562, 570 (9th Cir. 2016).

[153] In other words, if there is a credible scientific basis to conclude that the relative value is some number between zero and 0.69, rather than zero, as assumed in our calculations above, the evaluation of whether impacts are mitigated still must recalculate the base ratio because Frakes et al. 2015 makes plain that 0.69 is not based on science and is grossly too high based on the reality that only 4% of breeding habitat occurs in the secondary zone. *See* Frakes et al. at 15. For example, if the value was halved to 0.345 instead of 0.69, the initial base ratio would be 7.34 instead of 1.98, meaning that the required mitigation should at minimum be approximately three times more than the 2.5 final base ratio of the Methodology.

[154] *See* Methodology at 1-2.

[155] *Id*.

plainly be factually unsupportable based on the Methodology's own projection that unreported habitat loss would continue to occur at an estimated rate of 7,410 acres per year.

Similarly, the adjustment of the base ratio from 2.23 to 2.48 to account for habitat losses from small scale development of homes on lots of 5 acres or less by individual homeowners only reflects the estimated losses over a five year window.[156] Consequently, it is unsupportable to rely on the base ratio of the 2012 Methodology for actions that will be authorized and occur not between 2009 and 2014, but for 50 years into the future, without any adjustment that reflects the likely continued small scale development by individual owners over the next 50 years.

Also similarly, the Methodology's adjustment of the base ratio from 2.48 to 2.50 to account for the indirect effects of traffic generated by projects *without* habitat loss factors only accounts for impacts over a five-year window.[157] It would clearly be improper to apply the base ratio of the Methodology to projects that will occur over the course of the next 50 years without any adjustment to account for the reality that the proposed activities here will occur over a period ten-times that five year duration.[158]

In sum, the HCP purports that the 2.5 base ratio of the Methodology takes into consideration indirect effects, but it is plain that the base ratio only accounts for those impacts over the course of a five year period, not the 50 year term of the activities proposed here. Reliance on the Methodology to demonstrate that the direct and indirect impacts of the proposed development will be fully offset there is not rationally supportable based on the text of the Methodology itself.

Second, the Methodology's estimates for these forms of habitat loss between 2009 and 2014 anticipate total losses of 31,265 acres and 25,900 acres of primary zone equivalent habitat respectively. As discussed above, Frakes et al. (2015) indicates that the amount of "primary zone equivalent" habitat likely is hundreds of thousands of acres less than the baseline amount estimated in the Methodology. Thus, the fact that the base ratio in the Methodology accounts for a total of 57,165 acres of additional loss of primary zone equivalent habitat does not in any way make up for the reality there are hundreds of thousands of acres less of habitat meeting that definition. Consequently, this aspect of the base ratio calculation does not in any way cure or render harmless the failure to consider best available science (Frakes et al. (2015)) in continuing to rely on the Methodology when it is based on an extreme inflation of the presently remaining "primary zone equivalent" habitat.

A final, independent consideration regarding the HCP's improper reliance on the Panther Habitat Assessment Methodology is that the Methodology appears to center on preventing backsliding from the *interim* goal of the recovery plan, rather than on preventing actions that would diminish the attainment of recovery. The Methodology centers on maintaining enough habitat to support a

[156] *Id.* at 2.
[157] *Id.* at 2.
[158] As discussed in detail below, this component of the Panther Habitat Assessment Methodology *does not account for the traffic-inducing effects of the proposal itself*, but rather is an attempt at correcting the Methodology's initial assumption about the how much privately owned habitat is necessary to preserve enough total habitat to ensure its target of supporting 90 panthers---to account for impacts that will occur during a five year window from activities that do not themselves involve habitat loss factors.

population of 90 panthers. One "interim goal" of the 2008 Recovery Plan is that: "The south / south-central Florida panther subpopulation has been maintained, restored, and expanded beyond 80 to 100 individuals (adults and subadults)."[159] By contrast, the 2008 Recovery Plan sets forth that actual recovery to the point where the species can be delisted would require, inter alia, that: "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."[160] Further, since a population of 240 reflects the minimum to ensure genetic viability,[161] the self-sustaining persistence of even one population is impaired by actions that would eliminate habitat below what is necessary to support that minimum population number. Thus, compliance with the base ratio derived from the interim goal does not ensure that the proposal will not impair the survival and recovery of the species.

b. Reliance on the Methodology to Assert Impacts are Fully Offset is Irrational on Its Face

The HCP's assertion that impacts will be fully offset merely because the Preserve Area represents sufficient number of PHUs to cover the number that would be required for compensation under the Methodology is also inherently faulty because the Methodology purports to *minimize* effects on the species, not provide full compensatory mitigation. The Methodology repeatedly states that it is used to "minimize" the effects of projects on the Florida panther. It does not purport to provide full compensatory mitigation that eliminates all negative impacts on the species.[162] In short, the Methodology does not purport to eliminate all impacts to the species, so merely showing that its requirements could be satisfied does not rationally show that all impacts will be fully mitigated. Further, because the Methodology provides no way of assessing the residual impact to the species, merely preserving more PHUs than required under the Methodology does not necessarily mean that all residual negative impacts would be fully addressed.

Further, though aimed at "minimizing" negative effects on the species, the Methodology in no manner can be used to assert that impacts are minimized to the "maximum extent practicable." First, the Methodology does not purport to demonstrate that negative impacts are reduced to the maximum extent practicable, nor that impacts are mitigated to the maximum extent practicable as a result of application of its procedures. Second, it is plain that assessing whether minimization and mitigation has been provided to the maximum extent practicable must be considered in light of the technical and economic aspects of the specific proposal in question. Third, an assessment of the reasonable and prudent measures that should be imposed to reduce take under ESA Section 7, in the context of issuing an incidental take statement, does not necessarily satisfy the requirements of ESA Section 10 to reduce and mitigate to the maximum

[159] Recovery Plan at 99.
[160] *Id*.
[161] *See* Frakes et al. 2015 at 15 (Citing Kautz R, Kawula R, Hoctor T, Comiskey J, Jansen D, Jennings D, et al. How much is enough? Landscape-scale conservation for the Florida panther. Biological Conservation. 2006; 130: 118–133.).
[162] *See e.g.*, Methodology at 1 ("We used these values … as the basis for habitat evaluations and the recommended compensation values to *minimize* project effects to the Florida panther[.]") (emphasis added); id. at 3 ("These zones affect the level of compensation the Service believes is necessary to *minimize* a project's effects to Florida panther habitat.") (emphasis added).

extent practicable. As the court stated in *Fund for Animals v. Babbitt*, 903 F. Supp. 96, 107 (D.D.C. 1995), "the phrase 'to the maximum extent practicable' . . . imposes a clear duty . . . to fulfill the statutory command to the extent that it is feasible or possible." Section 10 requires that all harm be reduced to the maximum extent practicable and then mitigated to the maximum extent practicable, such that all unavoidable residual harm be eliminated through compensation measures if possible.

In sum, the HCP cannot rely on the Methodology to show that impacts are fully offset. Nor can it rely on the Methodology to show that impacts have been minimized and mitigated to the maximum extent practicable.

4. The Best Available Science Shows That the HCP's Proposal to Mitigate Impacts to Vital Habitat Corridors for Florida Panther Will Not Fully Offset the Impacts of the Proposed Development

The HCP purports that all impacts for Florida panther will be "fully offset" by the habitat preservation alone, and that the contingent, discretionary, and limited restoration described cursorily in the HCP is essentially additional mitigation beyond what is necessary to offset the impacts. In additional to the flaws in that rationale described above, analysis of the HCP's impacts conducted by Dr. Robert Frakes shows that the proposed habitat preservation areas are not adequate to prevent important north-south corridors for Florida panther movement from being broken.[163] According to this analysis, with regard to the existing north-south panther habitat connection on the western side of the RLSA, between Florida Panther NWR and Corkscrew Swamp, the pathway that adult panthers use will be "broken and substantially narrowed."[164] The existing north-south panther habitat connection on the eastern side of the RLSA, between Florida Panther NWR and Okaloacoochee Slough, will also be "broken" and "substantially narrowed."[165] Dr. Frakes explains:[166]

> The analysis shown in Figs. 10 and 11 was intended to examine potential impacts to connections between the main body of habitat to the south and the Okaloacoochee Slough and Corkscrew Swamp to the north. Adverse impacts to these connections may be even more damaging than direct habitat losses in certain areas, because they could block or hinder the movement of panthers between these areas of excellent habitat and impact the potential for panthers to disperse north across the Caloosahatchee River. Since dispersal of panthers across the Caloosahatchee River is a requirement for recovery, impacts to these pathways will reduce the likelihood of panther recovery.

Dr. Frakes concludes, "[I]t is likely that the degraded/reduced habitat along these pathways will adversely impact all north-south panther movements."[167]

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[163] *See* (Frakes 2018).
[164] *Id.* at 20, Fig. 10.
[165] *Id.* at 21, Fig. 11.
[166] *Id.* at 17.
[167] *Id.*

In sum, despite the maintenance of "preservation areas" proposed by the HCP, there will be adverse impacts to all north-south panther movements resulting from these corridors being broken and narrowed. Thus, contrary to the assertions in the HCP, this serious adverse impact on the species clearly will not be fully offset by the proposed habitat preservation.

Notably, neither the HCP nor the DEIS provide any analysis to substantiate the assertion that impacts to the corridors are fully offset. The DEIS asserts, "Despite the narrower cross section of these two corridors proposed in Alternative 2 these corridors will be preserved and maintained to encourage wildlife movements towards planned wildlife under passes."[168] Neither the HCP nor the DEIS provide any scientific basis for the assertion that the *functionality* of the north-south corridors will actually be preserved and maintained in the absence of additional mitigation measures left to the discretion of the Marinelli fund. Nor do they assess the extent of the adverse impact to those corridors from the proposed development.

In short, these important corridors will be impaired by the proposed activities, despite the preservation of adjacent areas, and therefore land preservation alone does not fully offset those impacts.

5. The HCP Fails to Account for the Impacts of Oil and Gas Development and Agricultural Intensification on the Preserve Area Lands

In asserting that the impacts of the proposed habitat loss in the Covered Activities area will be fully offset by the maintenance of the lands within the Preserve Area based upon calculations showing that the Preserve Area represents more than enough PHUs to offset the total PHUs of the area that will be destroyed and degraded, the HCP fails to take into account that lands within the Preserve Area will be subject to habitat loss and degradation even after those lands are "protected" by easements or deed restrictions to prevent certain uses. The HCP makes clear that the limitations imposed on the Preserve Area lands will still allow for "historical uses."[169] These "historical" uses include crop cultivation, silviculture, and even oil and gas development.[170] Problematically, the HCP does not appear to limit the nature or intensity that may occur on any given area within the Preserve Area to the same type or intensity of "historical use" presently occurring on that specific land. Thus, land that is currently a pasture ostensibly could be converted to row crops, and oil and gas development "may occur anywhere within the HCP Area."[171] Since the PHU value of an area depends on its current land cover type, *see* Methodology, it is plain that changes to new or more intense "historical uses" on a given plot could diminish the PHU value of the Preserve Area lands, even after they have been subject to the proposed deed restrictions or easements. And regardless of whether "oil and gas production is compatible with utilization of the *surrounding* habitat," as the HCP alleges,[172] it is plainly the

[168] DEIS at 81; *see also* DEIS at 91 ("landscape scale FP habitat corridors would be maintained, providing linkages to allow for FP movement and dispersal between public conservation lands and other habitat areas.").
[169] See HCP at 29 ("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.").
[170] *See id*.
[171] *Id*. Although the HCP purports that pasture in the Covered Activities Area will be replaced when destroyed, it appears to lack any similar commitment that pasture in the Preserve Area will be replaced if degraded or destroyed.
[172] *See* HCP at 29.

case that the habitat within the footprint of the oil and gas production facilities, such as well pads, pipelines, and wastewater containment structures, will be destroyed. Thus it would be arbitrary and capricious, and in violation of the requirements of ESA section 10 to rely on these areas to provide mitigation when they will be subject to such development. Further the impacts of oil and gas development in the HCP must be analyzed under NEPA.

Furthermore, it also plainly the case that oil and gas exploration activities can have negative impacts on the ability of panthers to use the habitat. For example, oil exploration activities, such as those currently taking place in the Big Cypress National Preserve, cause damage to "primary zone" habitats, which are habitats essential for the survival of the endangered Florida panther.[173] Seismic survey activities impact the habitat quality for panthers by fragmenting and degrading natural plant compositions, making the impacted areas less suitable for habitation; seismic survey activities can overlap denning season, which can lead to mothers abandoning their dens in response to seismic survey activities; the potential for dispersal of and impacts to the panther's prey species may reduce the amount of food available to panthers; and avoidance of the seismic survey areas by panthers may result in more frequent crossings of roads, putting panthers at increased risk of death or injury by vehicular collision.[174] Further, oil and gas development would increase vehicular traffic in the area. These are the types of impacts that must be analyzed under NEPA and the ESA if oil and gas development activities are contemplated to take place within the HCP.
The HCP proponents thus want habitat to be credited for conservation even though they will retain the ability to destroy that habitat for oil and gas development or more intense agricultural uses. The HCP proponents want to have their cake and eat it too, at the expense of the Florida panthers' survival.

With regard to preservation of area of existing native vegetation within the Preserve Area, the HCP states that existing native vegetation will be preserved to the same "general extent," but provides absolutely no indication of what that means, or how much may be lost.[175] By contrast, the HCP states more specifically that a cap of 10% applies to loss of native vegetation for the 2,087 acres of "very low density use" lands.[176] The failure to provide a clear and measurable limit for how much native vegetation may be lost from the Preserve Area lands means that it is unclear how much additional habitat degradation and loss will occur in the Preserve Area due to shifts or intensification of the "historical uses" occurring on a given parcel.

In sum, the HCP overstates the extent to which preservation can offset harm by failing to account for the continued habitat loss and degradation that will occur as a result of so-called historical uses shifting in extent, location, and intensity.

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[173] *See* Quest Ecology, *Preliminary Evaluation of Potential Effects of Seismic Survey for Oil and Gas In and Near the Big Cypress National Preserve on the Florida Panther* (October 2018), *available at: https://www.nrdc.org/sites/default/files/preliminary-evaluation-of-potential-effects-of-seismic-surveying-for-oil-and-gas-on-the-endangered-florida-panther_2018-10-16.pdf; see also* Quest Ecology, *Seismic Survey Inspection Report Big Cypress National Preserve* (May 2018), *available at:* https://assets.nrdc.org/sites/default/files/seismic-survey-inspection-big-cypress-20180531.pdf?ga=2.64474735.1368414805.1534966676-1336211018.1533580820
[174] *Id.*
[175] *See, e.g.*, HCP at 115.
[176] *Id.*

6. The HCP Overstates the Benefits of the Habitat Preservation By Failing to Account for the Existing Restrictions Already Applicable to the "Preserve Area"

The fundamental premise underlying the application of the Panther Habitat Assessment Methodology is that the habitat to be preserved as mitigation for other habitat destruction is actually otherwise at risk of development. Many of the lands included in the "Preserve Area" are subject to pre-existing restrictions imposed by Collier County, which apply to the lands regardless of whether the owners participate in the RLSA program. County Comprehensive Plan and Florida state requirements applicable to the Big Cypress Area of Critical State Concern provide protections to this area to varying degrees from both mining and development. For example, residential uses and earth mining are already excluded uses for 31,100 acres of the land in question due to county restrictions on Flow way Stewardship Areas.[177] Only agriculture, agricultural support uses and conservation are available uses on this acreage. Further, site alteration on the lands within the Big Cypress ACSC is restricted by Florida Administrative Code Rule 28-25.006, which provides that for non-agricultural purposes, "Site alteration shall be limited to 10% of the total site size." Approximately 18,300 acres of land in the RLSA's "open" area is within the ACSC, and therefore subject to this restriction, which obviously severely limits the potential for residential development to occur on those lands. Further, approximately 40,000 acres of land in Habitat Stewardship Areas and 18,200 acres of land in Water Retention Areas are subject to a restriction on non-agricultural uses that limits site alteration to 20% of the total site size.[178]

In considering the extent to which the mitigation provided under a conservation plan offsets the harm resulting from the take to be authorized, the Service must separate out the benefits provided by already existing conservation measures, and only weigh the additive (new) benefits provided by the plan when assessing the net impact of the proposed ITP.[179] Any rational assessment of the extent to which the proposed HCP actually provides new benefits to offset the new harms that will result from the proposed development must evaluate only the benefits that are additional to existing restrictions on the land use. Put another way, lands that are already protected from activity that would destroy their value to panthers are not "at-risk" and therefore entering into a conservation easement for those lands does not provide the same amount of additional benefit as entering into a conservation easement for lands that lack such restrictions under otherwise applicable law, such as local codes.

Furthermore, the assessment of putative benefits should also take into account that for the Applicants to accomplish their objective, which clearly and plainly is to undertake dense development, they *must* accept additional restrictions on lands in the Preserve Area to generate the credits necessary under the RLSA. The developers cannot achieve the objective they seek

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[177] Collier County Growth Management Plan. Future Land Use Element. RLSA Overlay. Policy 5.1, *available at* https://www.colliercountyfl.gov/home/showdocument?id=77306. Policy 5.1 imposes that restriction regardless of whether the landowner participates in the RLSA, and Policy 3.5 further imposes it upon lands that do participate in the RLSA. Thus the restriction is inescapable for those lands.

[178] Collier County Growth Management Plan. Future Land Use Element. RLSA Overlay. Policy 5.3.

[179] *Cf. Pacificans for a Scenic Coast v. California Dep't of Transportation*, 204 F. Supp. 3d 1075, 1087-88 (N.D. Cal. 2016) (Biological Opinion was based on faulty information because proponent agency offered already existing perpetual conservation easement as mitigation for new impacts, without disclosing that no new benefits would accrue).

under this HCP, which is facilitating dense development, without opting into the RLSA system. Thus, although participation is voluntary, it is nonetheless inescapable if the Applicants are to pursue the plans that they seek to undertake here. Consequently, the assessment of benefits must start from the baseline that participation in the RLSA is required in order to build developments, and that numerous restrictions will therefore be compelled on lands within the proposed "Preserve Area," regardless of whether the proposed dense development must also comply with the ESA; and therefore the benefits of the HCP must be assessed in terms of what *additional* value they provide beyond the restrictions imposed by opting into the RLSA. Thus, the HCP should expressly identify the RLSA credits that would be required to allow development on the 40,000 acres in the CA and explain how those credits would be achieved by restrictions on Preserve Area lands. The actual benefit to panthers must then be measured in terms of the extent of the remaining risk of development *after* all of these otherwise applicable restrictions are considered.

As a consequence of the HCP's total failure to acknowledge the reality that use of extensive areas within the "Preserve Area" will be restricted regardless of ESA obligations, the HCP vastly overstates the benefit to the species from the proposed maintenance of those lands.

7. The HCP Fails to Show that the Current Status and Ownership Patterns of the Preserve Lands Ensure that the Described Preservation Will Occur and Provide the Benefits Alleged

Independent of other concerns about the sufficiency of the proposed preservation as mitigation for the impacts of the taking that will result from the covered activities, the HCP is inadequate because it will not verify key information about the proposed preservation lands until after the ITP is issued, and will *never* verify other key information relevant to determining the extent to which impacts are offset. Moreover, the HCP apparently lacks a mechanism to ensure that the entirety of the Preserve Area actually will be subject to permanent preservation and maintenance.

First, the HCP states that aerial imagery to confirm the current land use/cover types in the Preserve Area will not be obtained until *after* the ITP is issued.[180] This means that if cover types have changed since the survey information relied upon in the HCP to develop its mapping of cover types, which appears to date from 2016 at the latest,[181] the calculation of PHUs for that area may reflect an overestimate compared to actual conditions in 2019. This should be evaluated before the ITP is issued, not after.

Second the HCP states that Preserve Areas will not be subject to biological surveys to evaluate the extent to which they are actually used or occupied by the covered species.[182] The HCP instead will rely on the modeled suitability of lands within the Preserve Areas. This means that for many of the covered species, the HCP will be "offsetting" impacts from definitely destroying occupied habitat in the Covered Activities Area (because the presence of the species as detected

[180] See, e.g., HCP at 242, 261.
[181] *See* HCP at 47. The HCP cites the 2016 FFWCC and Florida Natural Areas Inventory Cooperative Land Cover version 3.2. Vector.
[182] *See* HCP at 264.

by project specific biological surveys in the Covered Area is what triggers the requirements for mitigation), by protecting other areas that may in fact not be used or occupied by that species for reasons not captured by the suitability model. The failure to actually ascertain whether the Preservation Area habitat is occupied or not, and to consider that in evaluating the impacts to the species, would violate the ESA.[183]

Third, the HCP entirely fails to evaluate whether each applicant individually has sufficient ownership of lands within the Preserve Area to provide the alleged offset of the impacts associated with development of the parcels they own within the Covered Area. Nor does the HCP provide any mechanism whatsoever to ensure that individual Applicants who do not own enough acreage within the Preserve Area will be able to secure rights to preserve additional lands within the Preserve Area owned by other Applicants.

Fourth, the HCP appears to lack any mechanism whatsoever to ensure that the total acreage promised for preservation actually will be preserved, even if all of the development under the Covered Activities proceeds. The HCP appears to entirely defer the determinations about the areal extent and exact location of habitat in the Preserve Area that will be subject to easements/deed restriction to compensate for projects in the Covered Activities Area to future permitting decisions to be conducted by state and federal agencies. In this HCP, for most of the Covered Species, the Applicants provide no clear commitments to specific ratios for mitigation. Even for Florida panthers, the HCP uses the Methodology to show that enough habitat is theoretically available within the Preserve Area, but does not actually commit to providing compensation at least in accordance with that Methodology. Further, the HCP asserts that the Preserve Area contains more PHUs than necessary to compensate for losses in the Covered Area, which appears to mean that there would be lands within the Preserve Area that never become subject to deed restrictions or easements. Since the premise of this HCP relies entirely on maintaining the contiguity of the lands in the Preserve Area, it would be unlawful to conclude that such contiguity will be maintained when the reality is that lands within the Preserve Area might never become subject to permanent protections.

Further, the vague framework described in the HCP, whereby the actual decision about how much land will be covered by easements or deed restrictions is deferred to the permitting for individual projects, seemingly will avoid a forward-looking analysis of the total cumulative impact on Covered Species of all 40,000 acres being developed. This significantly undermines the whole alleged benefit of the HCP, which was to provide a landscape-scale assessment of the collective impacts and offsets of the proposed development. Without binding commitments to mitigation ratios that will ensure the entirety of the promised Preserve actually will be put into permanent conservation, it would be unlawful to conclude that the HCP provides any benefit that is tied to ensuring that all of the lands are indeed preserved, such as benefits derived from allegedly preserving corridors.

C. The Applicants Have Not Ensured that Adequate Funding Will Be Provided

[183] *See Southwest Center For Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118 (S.D. Cal. 2006), *appeal dismissed and remanded on other grounds*, 409 Fed. Appx. 143 (9th Cir. 2011) (conclusion that taking would not appreciably reduce survival or recovery unlawfully failed to distinguish between occupied and unoccupied habitat).

The HCP repeatedly asserts that the mitigation measures to be provided under the Marinelli Fund are "additional" or "outside the plan," the plain reality is that the land maintenance on which the HCP relies to assert that impacts will be "fully offset" in no way actually demonstrates that all impacts have been fully compensated for, nor that the land maintenance represents minimization and mitigation to the maximum extent practicable. Consequently, the "additional" measures, such as wildlife crossings and habitat restoration, must be assured through adequate funding mechanisms. The HCP does not provide an adequate funding mechanism.[184]
The HCP states that the Marinelli Fund will receive funds from: (1) a $350 per acre contribution paid within 90 days of the time that the developers receive certificates of occupancy from the county, or 90 days from the time product leaves a mining site; (2) a $200 per unit fee paid when the housing units are sold or re-sold.[185] Taking into account that approximately 40,000 acres are proposed to be developed, this means that the per acre fee would constitute approximately 14 million dollars (40,000 acres x $350/acre). Considering that, according to the HCP, 91,480 housing units are proposed to be developed, the initial sale of those units would generate approximately 18.3 million dollars (91,480 units x $200/unit). This means that of the 150 million dollars that the HCP claims will be generated for the Fund over 50 years, approximately 117.7 million dollars will depend on the same units being repeatedly resold. To generate 117.7 million dollars with a $200 re-sale fee per unit would require that each unit be resold approximately 6.4 times. The HCP provides no documentation or explanation of how it concluded that 150 million would be generated. Nor does it provide any documentation to support its implicit assumptions about how many times the units would be re-sold. Indeed, instead of supplying this necessary information, the HCP states: "The precise value of the revenue stream to be generated through these mechanisms over the 50-year term of the ITPs is unquantifiable at this time."[186] Yet, far from providing a "precise" value, the HCP does not even support or explain the 150 million dollar estimate it provides.

Based on the structure of the funding mechanism, it is plain that only a fraction of the funds (the per acre fee) are generated at the time that impacts from habitat destruction will occur. Thus, if sales do not occur due to down turns in the real estate market, there plainly may be periods where the harms from habitat destruction will have accrued, but funding to address them may lag by years. Further, the extreme impacts on the Florida panther and other species from increased traffic and roads plainly will occur when initial sales of new housing units bring additional people into the area, yet the mitigation for that impact will turn on repeated resales over the course of decades. Thus the impacts of traffic will be felt long before funds are generated from the repeated resales on which the HCP relies to inflate its estimate of the available funding. In short, the harms from the development will be front-loaded, but the funding for necessary mitigation measures to address those impacts (such as wildlife crossings) will lag, and may also be subject to long funding gaps if resales slow.

The HCP asserts that a severe economic downturn "would not affect the sequencing where mitigation must be provided prior to the initiation of impacts and potential taking(s)" and that therefore "overall impacts and mitigation are in balance."[187]But that statement relies entirely on

[184] *See* Noss Report at 14–15.
[185] HCP at 284.
[186] HCP at 284.
[187] HCP at 277.

ignoring the need for mitigation beyond the land preservation and maintenance the HCP proposes; it rests on the false assumption that the wildlife crossings and habitat restoration are not necessary to compensate for residual harms resulting from development activities.

The HCP provides no backup mechanism to ensure that there will be funding if there are lags or gaps due to the structure of the funding mechanism it describes. Nor does it demonstrate that no backup mechanism is necessary.

According to the HCP, the Marinelli Fund will pay for plan-wide monitoring and reporting as a first priority, with the remaining funds to be used at the discretion of the Marinelli Fund board for mitigation measures.[188] The HCP provides no estimate of the costs of such plan-wide monitoring and annual reporting. Instead, the HCP asserts with no foundation that, "These…costs are expected to be relatively modest, and will result in expenditure of only a small percentage of the revenue available in the Marinelli Fund."[189]

Nor does the HCP provide any estimate for the costs of the mitigation activities such as wildlife crossings and habitat restoration that it states will be carried out at the discretion of the Marinelli Foundation's board.

Notably, the HCP asserts that it will rely on the Florida Fish and Wildlife Commission (FWC) to conduct all surveying and monitoring of Florida panthers that is necessary to evaluating the impact of the proposed activities and purported mitigation.[190] The HCP states that if additional funding for FWC is necessary to accomplish the surveying and monitoring, or that if FWC no longer can provide such surveying and monitoring, the Marinelli Fund "may" provide the required funds.[191] The prospect that FWC may reduce or eliminate aspects of its panther monitoring program is not a mere possibility; the FWC discontinued planned capture season activities this past year.[192] The HCP contains no estimate of what the costs of necessary surveying and monitoring could be, or how they compare to the availability of funds in the Marinelli Fund. This leaves an obviously mandatory component of the HCP (monitoring) in an uncertain state in terms of the adequacy of funding. Moreover, it may mean that mitigation activities do not occur or must be delayed because the available funding must be directed to monitoring instead.

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[188] HCP at 285.
[189] HCP at 286.
[190] *See* HCP at 276.
[191] *See id.*
[192] *See* Craig Pittman, "Three decades of panther capture-and-collar program may come to an end," Tampa Bay Times (Nov. 1, 2017), *available at* https://www.tbo.com/news/environment/wildlife/three-decades-of-panther-capture-and-collar-program-may-come-to-an-end/2343066 ("But the annual ritual of capturing big cats to put radio collars on them may at last be at an end. 'We may just choose not to have a panther capture season this year[.]'"); Florida FWC, Annual Report on the Research and Management of Florida Panthers: 2017-2018 (Oct. 18, 2018) at 12 ("No formal capture season was planned the 2017-2018 FY.") (*compare with* Florida FWC, Annual Report on the Research and Management of Florida Panthers: 2016-2017 at 11 (Oct. 24, 2017) (describing planned capture season), and Florida FWC, Annual Report on the Research and Management of Florida Panthers: 2015-2016 at 11 (Sept. 26, 2017) .

In sum, the HCP fails to provide the basic information necessary to ascertain whether there will be adequate funding to administer the plan, comply with reporting requirements, fund necessary monitoring, and pay for necessary mitigation measures such as wildlife crossings and habitat restoration at the points in time when funding for those activities is necessary. The HCP both fails to show that the funding it anticipates will be sufficient in amount and timing, *and* fails to show that such funding is adequately certain to be provided.

1. The HCP Impermissibly Makes Restoration and Other Necessary Measures Optional and Discretionary

For Florida panthers, the HCP does not ensure that any habitat restoration or replacement will occur to minimize or mitigate for the impacts on the species.[193] Nor does the HCP ensure that any other mitigation measures, such as wildlife crossings, will actually be provided to offset the impacts to the species. Indeed the HCP expressly claims that: "These initiatives… represent additional benefits of the Plan that are not needed in order to fully offset the projected impacts of incidental take (because other elements of the Plan fully offset those impacts), and therefore the funded conservation initiatives are not prescribed or specifically required elements—as mitigation or otherwise—under the Plan of the ITPs."[194] Yet, it is clear that the habitat preservation offered by the HCP will not in itself fully offset for the loss of vital habitat that will result from this proposal, nor for the impacts resulting from increased traffic and roads plainly caused by the same habitat modification. Consequently, these measures are necessary to offset impacts, and therefore cannot be relied upon unless they are mandatory, specific, and ensured by adequate funding mechanisms.

As the HCP concedes, the "additional" measures the HCP mentions, such as potential restoration of areas near the north- south corridors, and wildlife crossings, are entirely contingent on future discretionary decisions. Moreover, the HCP makes these measures dependent on adequate funding in the Marinelli Fund, but there is absolutely no information as to the extent to which these measures will be necessary to ensure that impacts actually are fully offset (in other words, how much land restoration and new land purchase would be required to ensure that the wildlife corridors remain intact and usable by the panther population, or how many wildlife crossings will be required to offset the increased mortality from vehicle collisions that will result from the increased traffic induced by their development), nor is there any assessment of what the costs of those measures are likely to be, or when the measures will be implemented, or whether adequate funds will be available at the point in time when the measures are necessary to offset the negative impacts being experienced by the species.[195] Notably, harms to the panthers from reduction of breeding habitat and constriction of corridors will happen as soon as ground-disturbing development begins, but the bulk of the funding for the Marinelli Fund turns on sales and repeated *re*sales of the finished housing units.[196] Thus while the harms to the species will be immediate and certain, the funding for these proposed mitigation measures turns on sales (and

[193] This contrasts with the provisions of the HCP relating to a few of the other species, for which specific ratios for habitat replacement through restoration are identified.
[194] HCP at 286.
[195] *See* Noss Report at 10–15.
[196] *See* analysis below, assessing inadequacy of funding mechanisms; *see also* Noss Report at 14–15.

resales) that may not happen for years, or that may dry up for extensive periods due to economic downturns.

The HCP provides no information to explain how the $150 million of funds it estimates was calculated, nor does it provide information to show the anticipated cash flow over time. Nor does it compare the funding it asserts will be available through the Fund to costs for the wildlife crossings and habitat restoration that the HCP makes entirely contingent on these funds being available. Based on this HCP, the Service could not rationally conclude that the funding will be sufficient to provide enough mitigation to fully offset the harms of the proposed activities, nor that additional measures are not practicable.[197]

Contrary to the repeated suggestion in the HCP, the measures to be provided under the Marinelli Fund are not providing benefits beyond what is necessary to offset the impacts to Florida panthers. At minimum, extensive habitat restoration in appropriately located areas is clearly necessary to offset the impacts of the habitat loss, and wildlife crossings are absolutely necessary to mitigate the impacts that will result from increased traffic and roads. The HCP does not provide a plan to assure that the necessary habitat replacement and wildlife crossings will be implemented. Due to the lack of specificity, the lack of requirements for implementation, and the lack of information to demonstrate that funding will be adequate to cover the full extent of necessary mitigation to offset impacts, the Service could not lawfully rely on these entirely discretionary, poorly defined, and questionably funded measures to conclude that the impacts have been fully offset.[198] Similarly, the vague "Best Management Practices" that the HCP purports it will "promote," *see* HCP at 211, cannot be relied upon by the Service to evaluate whether the HCP satisfies the requirement to avoid, minimize, and mitigate to the maximum extent practicable.

2. The Service Cannot Rely on the Discretionary Measures that Might Be Provided Under the Marinelli Fund

The Service cannot rely on the discretionary measures that might be provided under the Marinelli Fund because doing so would improperly delegate the Service's duties to a private entity and would create perverse incentives.

a. Relying on the Marinelli Fund Would Improperly Delegate the Service's Duties to a Private Entity

In addition to the problems identified above, the Service cannot rely on the list of measures that might be provided under the Marinelli Fund to conclude that the requirements of ESA Section 10(a)(2)(B)(ii) and (iv) have been met because to do so would unlawfully delegate the Service's decision-making to the Marinelli Fund board.[199] It is the Service's duty to determine what

[197] *See Sierra Club v. Babbitt*, 15 F. Supp. 2d 1274 (S.D. Ala. 1998).
[198] *See Klamath-Siskiyou Wildlands Center v. National Oceanic and Atmospheric Administration*, 99 F. Supp. 3d 1033, 1053-54 (N.D. Cal. 2015) ("The Secretary cannot make this ESA § 10(a)(2)(B)(ii) finding by relying on mitigation that the Services cannot enforce."). Nor could the Service lawfully rely on them to reach a no jeopardy conclusion. See, e.g., Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917, 935–36 (9th Cir. 2008).
[199] *See Pub. Employees for Envtl. Responsibility v. Beaudreau*, 25 F. Supp. 3d 67, 107 (D.D.C. 2014).

mitigation measures must be undertaken to ensure that impacts are minimized and mitigated to the maximum extent practicable, and to evaluate whether the mitigation will ensure that the taking will not appreciable reduce the likelihood of the species' survival and recovery.[200] The measures that the HCP's purports may be provided under the Marinelli Fund will be determined entirely by a board of private parties. The HCP expressly disclaims any binding commitment to undertake any of the described measures, and makes clear the intention that those measures will not be imposed as binding commitments in the ITPs. If the Service attempted nonetheless to rely on the prospect of those measures to conclude either that the obligations to minimize and mitigate have been satisfied or that the mitigation will be sufficient to avoid an appreciable impact on the survival and recovery, the Service would be unlawfully delegating its decision-making duty to non-governmental entities. It would be leaving to the Marinelli Fund board critical determinations about what mitigation measures are required and whether funding should be allocated to such mitigation. The Service cannot lawfully leave these decisions to private parties.

b. The Structure of the Marinelli Foundation Creates Perverse Incentives

A further reason that the Service cannot lawfully rely on any mitigation measures that purportedly will be undertaken through the Marinelli Fund is that the structure of the Marinelli Foundation's board and the lack of any binding commitments to specific mitigation projects create perverse incentives for the four "environmental" group NGO board members to direct funds to "public education" rather than wildlife crossings or habitat restoration and replacement projects. Although the HCP purports that the groups and developers have agreed to a ranking of priorities that puts wildlife crossings and habitat restoration before most other expenditures,[201] the HCP does not indicate that these priorities will in any way be binding on the board's decisions. Nor does it provide any assessment of how those priorities will be applied when there are insufficient funds available to complete expensive mitigation measures such as wildlife crossings and habitat restoration.

Will no funds be spent until enough funding is available for those projects? Or will funds nonetheless be directed to other measures such as "public education," even though directing funds in that manner would ostensibly delay full funding becoming available for the higher priorities?

Will the Marinelli Fund be used to fund "public education" work by the four environmental organizations on its board, or to "matching funds" for "public education" work by those organizations? If that could possibly occur under applicable corporate law, then the board members from those organizations could have strong incentives to direct funding to "public education" rather than to wildlife crossings or habitat restoration. Further, funds could also be directed toward initiatives to reduce conflict between human activities and wildlife.[202] Ostensibly, that could include measures such as payments to ranchers, which would benefit the developers themselves, who plan to continue to use lands in the Preserve Area for ranching.

[200] 16 U.S.C. § 1539(a)(2)(B)(ii, iv).
[201] See HCP at 287.
[202] See HCP at 287.

The HCP thus describes a scenario where the board members may have significant incentives to agree to direct funds to these other measures. The Service cannot ignore the reality that without any binding commitments to complete any specified wildlife crossing or habitat restoration projects, there is significant potential for funds to be directed toward "public education" or other measures that benefit the board organizations or developers instead.

c. The HCP Fails to Show that Impacts Are Avoided, Minimized, and Mitigated to the Maximum Extent Practicable Through Measures Funded by the Marinelli Fund

The HCP relies on the faulty premise that the impact of the proposed activities will be fully offset by the proposed land preservation. The HCP discusses additional measures to be provided on a discretionary basis by the Marinelli Fund, but makes no assertion that either the habitat avoidance and preservation or the discretionary mitigation provided under the Marinelli Fund represent avoidance, minimization, and reduction of harm to the maximum extent practicable. As discussed in more detail below, the HCP provides inadequate documentation to support its rejection of an alternative that would better avoid impacts to panther habitat. Further, the HCP fails to provide any consideration whatsoever of whether the footprint of the Covered Activities Area could be reduced or shifted to better avoid panther habitat or the habitat of other covered species. The HCP provides no information to support a finding that the proposed configuration represents avoidance to the maximum extent practicable. Similarly, the HCP provides no information to show that the preservation of additional lands, or that enforceable requirements for habitat replacement and restoration, or wildlife crossings would not be practicable. Finally, the HCP provides no documentation to show that the funding mechanism provided by the Marinelli Fund reflects the maximum extent practicable in terms of what the proponents can pay to provide for compensatory mitigation.

3. The HCP Contains Inadequate Procedures to Address Economic Downturn

The HCP asserts that severe economic downturn will not affect the plan because the HCP ensures that mitigation will occur prior to the initiation of impacts.[203] Again, this statement rests on the faulty premise that the proposed land preservation and maintenance will fully offset all impacts. The reality is that additional mitigation measures such as wildlife crossings and habitat restoration are necessary to mitigate obvious impacts that will occur as a result of the proposed actions. Rather than committing to and securing funding for such measures, the HCP provides them only on a discretionary basis, pending the availability of funds in the Marinelli Fund. The funding mechanisms for the Marinelli Fund fail to ensure that there will be adequate and sufficiently certain funding for these necessary mitigation measures. In particular, because the Marinelli Fund turns almost entirely on sales and repeated resales of housing units to generate funds, it is likely that those funds will dry out during periods of economic downturn. The HCP provides no mechanism to address that problem. Instead, it improperly attempts to ignore the problem by purporting that the mitigation measures that depend on the Marinelli Fund are merely "additional."

[203] See HCP at 277.

D. The Applicants Did Not Adequately Consider Alternatives Nor Explain Why Alternatives Are Not Being Utilized

The reasons stated in the HCP for rejecting the much less harmful and science-based Panther Review Team (PRT) Alternative are inadequate and do not explain why the proponents could not consider *any* other alternative that would result in less harm to the Florida panther by keeping development outside of Primary Zone and adult breeding habitat. The PRT Alternative[204] configuration provides much more land protection than the Plan in areas important to the Florida panther and some other Covered Species.[205] The PRT Alternative better avoids Primary Zone habitat and adult breeding habitat for the Florida panther by locating development activities in Secondary Zone lands. It also provides for more effective preservation of corridors for panthers.[206] Similarly, the Conservancy's proposed vision map, submitted during the scoping process, depicts an alternative footprint for development that would direct all development outside of the Primary Zone, while still providing for a total development footprint that leaves 38,200 acres available for potential additional development, which would in combination of Ave Maria total 43,227 if completely built out.

The HCP does not mention the Conservancy's proposal, and cursorily rejects the PRT Alternative for the following reasons:[207]

- 13,000 acres of the total 45,000 acres of land the PRT Alternative allocates to development are owned by parties other than the HCP proponents;
- The PRT alternative is not "economically feasible" because some of the individual HCP proponents' lands would be entirely in the area designated for preservation;
- Some of the PRT recommendations are no longer available due to planning and permitting activities that have occurred during the years since the PRT recommendation was made.

This rationale starts with the flawed premise that the 11 HCP Applicants here necessarily are entitled to engage in dense development on at least 45,000 acres of land. The HCP provides no reason why an alternative that would authorize less total development is not economically or logistically feasible for these Applicants.

Essentially, these developers are saying that if they cannot develop the likely maximum amount of lands in their ownership that would be allowed under the RLSA,[208] they will choose not participate in this HCP because they would prefer to gamble that other options will better

[204] It appears that the HCP and DEIS are referring to a map shown as Figure 13 from the PRT report as the "PRT Alternative." However, the PRT had several suggestions in their report, including moving development from the primary zone into the secondary zone. The latter PRT recommendation was the basis of the Conservancy's vision map. The Conservancy's vision map reflects a minor adjustment to that PRT recommendation to avoid some adult breeding habitat identified by Frakes et al. 2015 not encompassed within the primary zone.
[205] *See, e.g.*, Noss Report at 21.
[206] *See, e.g.*, Noss Report at 23.
[207] See HCP at 297.
[208] *See* Noss Report at 20, explaining that according to analysis by WilsonMiller (Stantec), only 43,312 acres of dense development could be authorized in the "open" area, and that amendments would be required to increase that amount to the 45,000 acres that the HCP proponents insist on.

optimize their individual economic interests (such as speculating that the results of an individual HCP or section 7 authorizations for a development on their land would allow more development). That is in no manner the same as saying that a smaller overall development footprint would not be economically or logistically feasible. The Applicants here have done nothing to show that a smaller development footprint could not provide them with sufficient economic returns. There is no economic analysis at all to support the HCP proponents' assertions. In short, all they have said is that they don't want to develop anything less than what they have proposed here. If that were a legally sufficient reason for rejecting less harmful alternatives, it would completely gut the Section 10 requirement to avoid harm to the maximum extent practicable.

Further, the HCP proponents have done nothing to show that it is not possible to establish a banking, crediting, or pooling system, or some form of land exchange between the 11 owners that would establish adequate economic incentives to make continued participation in the plan economically feasible even for those landowners whose lands would fall entirely in the preservation areas under the PRT Alternative. In light of the HCP's assertion that the inclusion of these owners is key to the overall functionality of the plan in terms of establishing large contiguous areas for protection, it would seemingly follow that the remaining landowners have a strong incentive to ensure their participation through such alternative mechanisms. Yet there is no discussion of such mechanisms at all. Nor has the HCP shown that a reduced footprint of development for those landowners is not feasible. There is no explanation at all as to why a footprint that avoids at least some of the 13,000 acres of land at issue is not possible. Again, the rationale appears to be that the proponents just didn't want to do anything else.

Finally, the HCP's assertion that some aspects of the PRT have been foreclosed by planning and permitting that has occurred since 2009 does not provide an adequate basis for concluding that adoption of a slightly modified version of the PRT Alternative is not feasible. The HCP makes no attempt whatsoever to even explain what these specific aspects are, nor why adjustments cannot be made to account for them.

Moreover, the HCP entirely fails to consider any alternative that would ensure habitat restoration and replacement to compensate for losses of Florida panther Primary Zone and adult breeding habitat. Nor does it provide any reason why such an alternative would not be feasible.

Without economic analysis and other information affirmatively demonstrating that less harmful alternatives are not possible, the Service could not rationally reach a conclusion that the requirements of Section 10(a)(2)(B)(ii) have been met.[209]

The requirement to minimize and mitigate impacts to the maximum extent practicable is a stringent requirement. ESA Section 10(a) does not simply require minimization measures that are practicable, or minimization "to the extent practicable." Rather, ESA Section 10(a)(2)(B)(ii) requires minimization "to the maximum extent practicable." This language signifies a significantly more demanding standard than if Congress had simply said "if practicable" or "to

[209] See, e.g., National Wildlife Federation v. Babbitt, 128 F. Supp. 2d 1274, 1292 (E.D. Cal. 2000) (The Service failed to consider any alternatives that would provide greater mitigation than the proposed plan, and relied on conclusory statements rather than any economic analysis to assert that the proposed mitigation was the maximum practicable).

the extent practicable." The Service must be able to affirmatively make a finding that (1) impacts have been avoided the maximum extent practicable, and (2) remaining impacts have been mitigated to the maximum extent practicable. The reasons provided by the HCP do not provide a basis for a rational finding on either of those points.

E. The HCP Will Reduce the Likelihood of the Survival and Recovery of Listed Species

The HCP provides no guarantee that 107,000 acres of lands in the Preservation/Plan-Wide Activities and Very Low Density Use areas will be set aside for conservation purposes, nor is there a clear explanation or description of what percentage of the land will be devoted to mixed uses, such as agriculture, development, and oil and gas exploration and development, and what areas will be left as "native habitat" for species. Furthermore, it is unclear what percentage of the 107,000 acres is presently used or usable by each of the species, and what percentage would require a Clean Water Act Section 404 permit for development anyway. Without this information, and in light of the significant amount of development in crucial habitat for the covered species, the Service cannot lawfully conclude that the HCP will not appreciably reduce the likelihood of survival and recovery of the species in the wild.

Furthermore, what little information exists in the HCP indicates that the plan will in fact appreciably reduce the likelihood of survival and recovery for the Florida panther by impairing North-South habitat corridors and causing a net loss of adult breeding habitat corridors, resulting in a net loss of adult breeding habitat because it is no longer functional. For example, the land proposed for development on the southeast side of Immokalee would completely cut off migration between southern and northern habitat. Although it is difficult to determine the total size of the proposed corridor to the east of Immokalee, it would need to be large enough and have enough buffer to facilitate the flow of panthers that currently use this area to migrate north from the southeast corner of the project area. Additionally, it is unclear what percent and locations within the Preservation/Plan-Wide Activities and Very Low Density Use areas provide suitable habitat for the listed species, including the Florida panther.

1. The Best Available Science Shows That Maintaining a Viable Panther Population in South Florida Requires No Further Loss of Breeding Habitat

As the 2008 Recovery Plan recognizes, a population size of 240 adults and subadults is the minimum necessary to maintain genetic viability and a high probability of the individual population persisting[210] After assessing the amount of adult breeding habitat actually remaining in southern Florida, Frakes et al. conclude: "Even if all of the adult habitat within southern Florida had the maximum adult density of 2.80 panthers per 100 km^2 as reported in Quigley and Hornocker, the total population would remain below 240 adults and subadults…Coupled with our findings, this indicates that there is not enough adult panther (breeding) habitat remaining in

[210] See Recovery Plan USFWS 2008 Florida Panther Recovery Plan available at https://www.fws.gov/uploadedFiles/Panther%20Recovery%20Plan.pdf. at xi, 84, 86, 99; Frakes et al. 2015 at 15. Citing Kautz R, Kawula R, Hoctor T, Comiskey J, Jansen D, Jennings D, et al. How much is enough? Landscape-scale conservation for the Florida panther. Biological Conservation. 2006; 130: 118–133.).

south Florida to maintain one genetically viable population."[211] Frakes et al, 2015 found that there was actually less adult breeding habitat remaining than previously thought:

The Water Conservation Areas on the east side of the Primary Zone, the Shark River Slough in Everglades National Park, and the long, narrow corridor extending east from the Primary Zone and bisecting the Secondary Zone, do not contain adult panther habitat according to the probabilities assigned to those areas by our model. These areas probably are used by transient males and fit more closely to the definition of the Secondary Zone.

Kautz estimated the primary zone size to be 3547 mi^2 (9187 km^2), whereas Frakes 2015 estimates that the actual total amount of adult breeding habitat is only 2147 mi^2 (5579 km^2).[212] The figure presented below, taken from Frakes et al. 2015 at 9 Fig. 3, shows the Shark River Slough and Water Conservation Areas in relationship to areas Frakes et al. identified as adult breeding habitat.

In light of this scientific evidence showing that there is presently not enough breeding habitat to maintain one viable population in southern Florida, it is plain that "offsetting" the impact of destroying a substantial amount of that habitat cannot be achieved merely by not destroying other habitat. According to an analysis prepared by Dr. Robert Frakes,[213] the proposal will result in the direct loss of at least 16,799 acres (67.9 km^2) of adult breeding habitat, which constitutes approximately 4.8% of the total adult breeding habitat in private ownership.[214] It is plain that offset the impacts of this habitat loss would require, at minimum, replacement by successfully restoring a commensurate amount of properly located habitat, under conditions that ensure it will actually replace the spatial extent and full function of the habitat destroyed.

In short, the assertion that mere preservation of other habitat "offsets" for total destruction of breeding habitat does not comport with the best available science indicating that the species does not have sufficient breeding habitat to support a viable population, and therefore cannot tolerate net loss of additional breeding habitat.

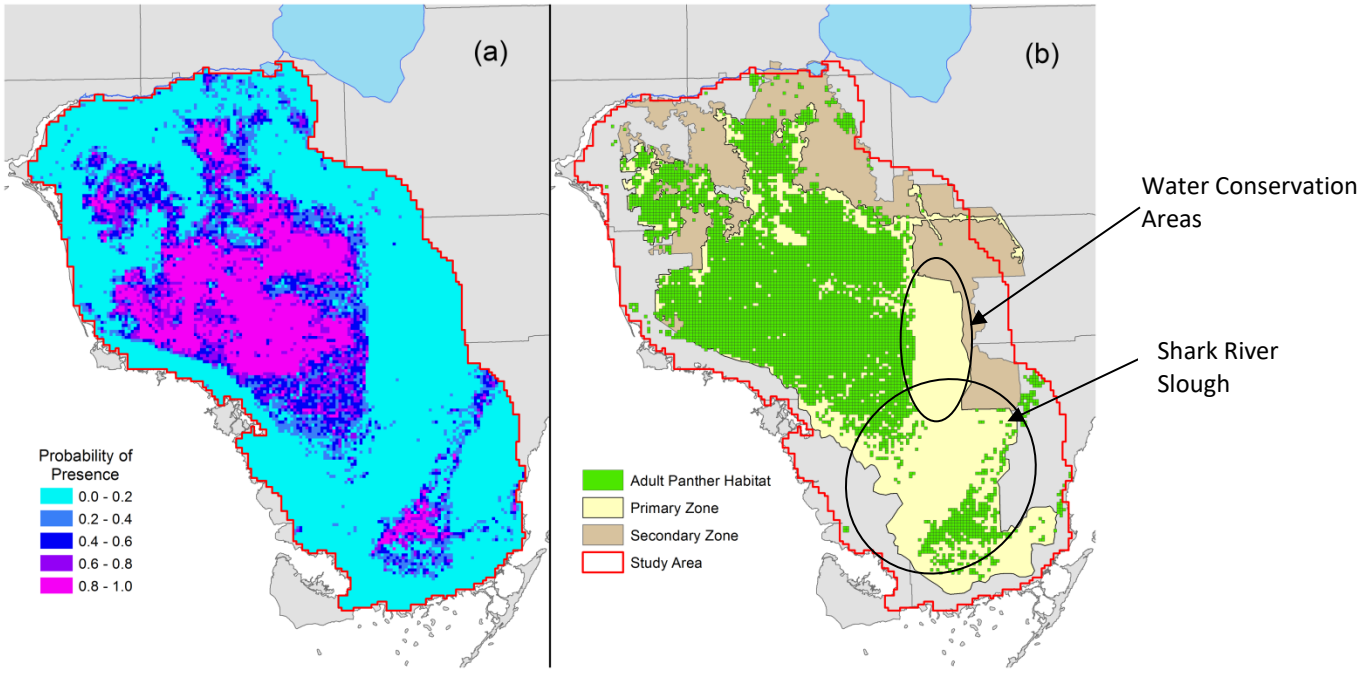
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[211] Frakes et. al. (2015) at 15.

[212] Frakes RA, Belden RC, Wood BE, James FE (2015) Landscape Analysis of Adult Florida Panther Habitat. PLoS ONE 10(7): e0133044, at 14, *available at* https://doi.org/10.1371/journal.pone.0133044 ("The RF model indicates that 5579 km2 of suitable adult panther habitat remain in southern Florida. Of this, 1399 km2 (25%) is in non-protected private ownership. Of the available breeding habitat, approximately 5232 km2 (93.8%) is contained within the Primary Zone defined by Kautz et al., and 211 km2 (3.8%) is contained within their Secondary Zone. The remaining lands classified as adult habitat by our model (135.8 km2, 2.4%) are disjunct patches outside the Primary and Secondary zones and are seldom used by panthers, except for transient males. The Secondary Zone of Kautz et al. is of little value to breeding panthers in its current state.").

[213]Frakes, RA, Impacts to Panther Habitat from the Proposed Eastern Collier Multiple Species Habitat Conservation Plan: A Quantitative Analysis **(**Oct. 7, 2018) at 13, Table 1.

[214] Frakes 2015 estimated that there was 1399 km2 of adult breeding habitat in private ownership. 67.9 km2/1399 km2 = 4.85%.



F. The HCP Fails to Provide Procedures to Deal with Unforeseen and Changed Circumstances

The HCP fails to anticipate and provide procedures for dealing with circumstances that may change, like landowners dropping out of the HCP, changes in the Florida panther program, and other assumptions regarding this longterm 50-year HCP and take application.

1. The HCP Contains Inadequate Procedures to Deal with Landowners Dropping Out

The HCP asserts that if Applicants subsequently drop out of participation in the plan and abandon their permits, the remaining ECPO landowners will "work with USFWS to proportionally reduce the amount of acreage available for Covered Activities under this Plan" if the amount of Preserve Area is not sufficient to fully offset harm to covered species.[215] Yet this would not address the reality that non-participation by that landowner could diminish the value of other lands in the Preserve Area that already have been subject to deed restrictions/easements as mitigation for habitat destruction. The HCP repeatedly relies on the contiguity of the lands in the Preserve Area as a basis for asserting that the HCP will compensate for impacts to Florida panther and other species.[216]Indeed, the HCP acknowledges the need to exclude areas within the Preserve Area that are not interconnected from its calculation of the PHUs available in the Preserve Area.[217] If a landowner drops out, subsequent development of that landowners property could isolate and fragment areas within the Preserve that have already been "protected" in exchange for habitat destruction. Thus the question should be not only whether further development should be proportionally reduced, but whether additional compensation and mitigation for the development that has occurred up to that point is required to address the failure

[215] HCP at 277.
[216] See e.g., HCP at 29, 30, 90, 292.
[217] See HCP at 90.

to ensure that the perpetually preserved lands will remain interconnected. In other words, because the value of each landowners' proposed conservation lands depends on contiguity being maintained, and therefore turns on participation by all of the owners, there must be some mechanism for reassessing whether additional mitigation measures are necessary to compensate for the development that has occurred already, not just for the remaining development that could occur.

2. The HCP Fails to Provide for Changes to the FWC Panther Program

The HCP fails to provide that funding will be available for panther monitoring, a necessary component of the plan, in the event that the FWC reduces or discontinues its panther research and management program. The HCP relies entirely on FWC to keep providing this monitoring, and yet fails to ensure that there will be sufficient funding to provide alternatives to that monitoring if FWC does not provide it.

3. Providing Assurances that No Further Mitigation Will Be Required Over a 50 –year Permit Term Fails to Meet the Requirements of ESA Section 10(a)(2)(B)(ii) and (iv)

Approving the proposed HCP and associated ITPs with assurances that no further mitigation will be mandated would unlawfully allow the landowners here to avoid any additional requirements for minimization and mitigation of the harms resulting from their activities, even if the proffered land preservation proves to be insufficient to, inter alia, preserve functional north-south corridors, ensure that home range restrictions do not exacerbate mortality from intra-species aggression, or address increased mortality from vehicle collisions caused by drastically increased roads and traffic. The HCP has failed to show that the impacts of the proposed development will actually be offset merely by the proposed land preservation. Its assertions that corridors will be preserved regardless of "additional" mitigation measures are not supported by any scientific evaluation. Further, the HCP refuses to commit to any mitigation to address the increase in vehicle collision mortality that will result from completion of the covered activities. The HCP provides no scientific basis to assert that vehicle mortality will be addressed by the mitigation that it does commit to undertake. Thus it is highly uncertain whether the proffered mitigation will be sufficient to address lasting impacts to the Florida panther population that will occur from impairment of north-south corridors and increased vehicle mortality.

Further, the impacts of climate change and sea level rise over the decades to come will make the Florida panther population even more dependent on inland habitats, such as the HCP area, exacerbating the consequences of impairing the north-south corridors and increasing the potential for vehicle mortality.

In light of the uncertainty of effectiveness of the proposed mitigation to address plainly foreseeable impacts, the uncertainty of implementation of any other measures, and the increased importance of the affected habitats to the species as a result of climate change, insulating these developers from any further mitigation requirements over the course of 50 years could have a

devastating effect on the species, and it would therefore be unlawful for the Service to approve the ITPs.[218]

V. The Service Must Comply with Requirements for Intra-Service Consultation Set Forth in ESA Section 7 and Implementing Regulations

A. The HCP and DEIS are Inadequate to Supply the Analysis Necessary for the Service's Biological Opinion

The Service is required to consult with itself and prepare a biological opinion; however, the HCP and DEIS here are inadequate to supply the detailed analysis required for a biological opinion.

"Each Federal agency" is required to review its actions to determine whether "any action" may affect listed species or critical habitat.[219] The instant application for an ITP contemplates an "agency action" by the Service—the approval or denial of the ITPs. The issuance of the ITPs "may affect" the Florida panther and other species addressed by the HCP since they authorize the taking of their habitat and affect their breeding, sheltering, feeding, travel and other characteristics.[220] "The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."[221]

The Section 7 consultation requirement applies equally to the Service's actions in connection with the issuance of an ITP pursuant to Section 10(a)(1)(B) as it does to other federal agency actions that may affect endangered or threatened species. Accordingly, the Service acknowledges an intra-Service consultation regarding the issuance of each permit application under Section 10(a)(1)(B) is required.[222]

In this case, on information and belief, the Service is preparing a biological opinion (BiOp) to comply with its intra-service consultation duties.

The Service's BiOp must be based on the "best scientific and commercial data available,"[223] and in it the Service "must state a rational connection between the facts found and the decision made."[224] To comply with Section 7(b)(3) of the ESA, the Service's BiOp must "detail[] how the agency action affects the species or its critical habitat."[225]

The HCP and DEIS here are inadequate to supply the detailed analysis required for a BiOp. As set forth above, they are not based on "the best scientific and commercial data available," as

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[218] See Southwest Center for Biological Diversity v. Bartel, 470 F. Supp. 2d 1118 (S.D. Cal. 2006), appeal dismissed and remanded on other grounds, 409 Fed. Appx. 143 (9th Cir. 2011).
[219] 40 C.F.R. § 402.13.
[220] 16 U.S.C. § 1532(19).
[221] *Id.*; *see Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687, (1995) ("harm" includes habitat modification); *Pacific Rivers Council v. Thomas,* 30 F.3d 1050, 1055 (9th Cir. 1994), *cert. denied,* 514 U.S. 1082, 115 S.Ct. 1793, 131 L.Ed.2d 721 (1995) (U.S. Forest Service land management plans were "actions that 'may affect' the protected salmon because the plans set forth criteria for harvesting resources within the salmon's habitat").
[222] *See e.g.* HCP Handbook at G-17.
[223] 16 U.S.C. § 1536(a)(2).
[224] *Gifford Pinchot Task Force v. United States Fish and Wildlife Service,* 378 F.3d 1059, 1065 (9th Cir. 2004).
[225] 16 U.S.C. § 1536(b)(3).

required by Section 7(a)(2) and NEPA. Also, the Service began its BiOp before receiving the final HCP from the Applicants and before taking public comment on the HCP and DEIS. This indicates the Service is not relying on the science submitted in the comment period, and may have pre-decided the HCP,ITP, and its own incidental take statement and whether they will jeopardize species, which is arbitrary and capricious.[226]

1. The Information Provided in the HCP is Inadequate to Establish Baseline Considerations

The HCP does not provide the Service the information it needs to determine the environmental baseline, a necessary foundation to analyzing the effects of the project and for determining whether the project will jeopardize listed species.

Under ESA section 7(a)(2), the Service's consultation process must "[e]valuate the current status of the listed species or habitat" and "the effects of the action and cumulative effects on the listed species or critical habitat."[227]"Effects of the action" and "cumulative effects" have specific meanings in the context of formal consultation under Section 7. Assessing the "effects of the action" requires the Services to define an "environmental baseline" and add to that the "direct and indirect effects of an action on the species or critical habitat, together with the effect of other activities that are interrelated or interdependent with that action."[228]

Determining the environmental baseline requires a description of "the *past and present* impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all *proposed* Federal projects in the action area ... and the impact of State or private actions which are *contemporaneous* with the consultation *in progress*."[229] This baseline includes certain anticipated actions that have *already* undergone formal or early consultation.[230] Thus, the proper baseline is the *present* status of the habitat and species, and this is the environmental baseline against which the HCP should be judged.[231]

For example, in this case, the HCP states that its proposal will result in an estimated 91,480 new housing units, and 174,000 new residents.[232]The HCP does not assess the increase in vehicle trips or traffic that will be associated with that additional population, but Dr. Noss estimates that using the HCP's projections of new housing units and residents, an additional 182,960 vehicles

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[226] *See Sierra Club v. Bosworth*, 510 F.3d 1016, 1026 (9th Circ. 2007) (the Department of the Interior inappropriately decided to establish a NEPA categorical exclusion for hazardous fuel reduction before conducting the data call).
[227] 50 C.F.R. § 402.14(g)(2)-(3).
[228] 50 C.F.R. § 402.02. *see also*, Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1063 amended, 387 F.3d 968 (9th Cir. 2004)("The BiOp should address both the jeopardy and critical habitat prongs of Section 7 by considering the current status of the species, the environmental baseline, the effects of the proposed action, and the cumulative effects of the proposed action. 50 C.F.R. § 402.14(g)(2)-(3).").
[229] 50 C.F.R. § 412.02 (emphasis added).
[230] See, Defenders of Wildlife v. Babbitt, 130 F.Supp.2d 121, 126 (D.D.C. 2001).
[231] See e.g., Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917, 928-29 (9th Cir. 2008)(finding NMFS's BiOp violated the ESA because its jeopardy analysis relied on hypothetical operations and uncertain long-term improvements in its baseline).
[232] HCP at 33.

would be on the road due to the proposed development.[233] This is a conservative estimate and the amount of vehicles based on the HCP, but it may actually be closer to 225,000 vehicles.[234] Analyzing the impacts of 45,000 acres of development in a similar footprint to the submitted HCP, the PRT found that the HCP Covered Activities would add an estimated 400,000 additional daily trips on existing roads and 425,000 daily trips on new roads.[235]

These are the impacts that must be measured against the environmental baseline. The Service cannot merely measure the incremental harm of this against speculative development scenarios that assume any or all other development would necessarily occur or be approved (in a piecemeal fashion or otherwise) by the Service, the Corps, and other federal agencies. Nor can the Service assume or project the mitigation measures that might be required of these hypothetical future projects under the ESA, CWA and NEPA. This includes the RLSA, ranchette-style development, and potential mining. In short, the Service is obligated to compare the effects of the proposed HCP project against a baseline of no such other development.[236]

2. The Proposed HCP will Cause or Contribute to Jeopardy of the Florida Panther.[237]

The Florida panther recovery plan calls for increased habitat and populations, not no-net loss or a decrease in habitat, therefore, the Service cannot find that this HCP which proposes to destroy 45,000 acres will not result in jeopardy.

The purpose of intra-service or internal consultation, like any Section 7 consultation, is to insure that any action authorized, funded, or carried out by the federal government, including the

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[233] Noss Report at 11.
[234] *Id.*
[235] Florida Panther Protection Program Panther Review Team, 2009. Technical review of the Florida Panther Protection Program Proposed for the Rural Lands Stewardship Area of Collier County. P. 54, 68-69.
[236] Similarly, the Service cannot consider other development inevitable if this HCP is denied, and use that as the basis for its NEPA no action alternative, as it has here. The no action alternative "provide[s] a baseline against which the action alternative…is evaluated." *Ctr. for Biological Diversity v. U.S. Dep't of the Interior*, 623 F.3d 633, 642 (9th Cir. 2010). "Without [accurate baseline] data, an agency cannot carefully consider information about significant environment impacts…resulting in an arbitrary and capricious decision." *N. Plains Res. Council, Inc. v. Surface Transp. Bd*., 668 F.3d 1067, 1085 (9th Cir. 2011). "Courts not infrequently find NEPA violations when an agency miscalculates the 'no build' baseline or when the baseline assumes the existence of a proposed project." *N.C. Wildlife Fed'n v. N.C. Dep't of Transp*., 677 F.3d 596, 603 (4th Cir. 2012). In short, an agency cannot assume that development is inevitable. *Davis v. Mineta*, 302 F.3d 1104, 1122-23 (10th Cir. 2002) (noting that "[a] conclusory statement that growth will increase with or without the project, or that development is inevitable, is insufficient"), abrogated on other grounds. *See also High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1197 (D. Colo. 2014) (rejecting the government's argument that "the same amount of coal will be burned" regardless of whether the government approved leases for coal production). Although the Service here notes other development would be subject to permitting, it nonetheless includes future development in its "no-action" alternative, stating individual applicants would be "free to independently pursue" residential or commercial development under base-zoning or the RSLA as well as earth mining activities. DEIS at 18-19.
[237] In addition to causing jeopardy to the Florida panther, the HCP would cause jeopardy to the some or all of the other covered species, for the reasons discussed in these comments. This includes significant impacts to what the FWS should have designated as "critical habitat" for the bonneted bat that is the subject of pending litigation in the U.S. District Court for the District of Columbia.

Service's issuance of an ITP, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat of such species.[238]

As part of its analysis the Service must consider whether the proposed action hinders recovery. The objective of the ESA is to recover listed species to the point at which "the measures provided pursuant [to the Act] are no longer necessary."[239] "'[I]n exceptional circumstances,' injury to recovery prospects alone could result in a jeopardy finding."[240] Therefore, the Services must give "some attention to recovery issues" in the BiOp to ensure that the agency action "will not appreciably reduce the odds of success for future recovery planning, by tipping a listed species too far into danger."[241] But in this case, the HCP and DEIS are lacking consideration of whether the HCP would hinder the *recovery* of listed species. A valid BiOp must supply this analysis.[242]

When a species is already in jeopardy, like the Florida panther, the action agency "may not take action that deepens the jeopardy by causing additional harm."[243] The BiOp must consider whether certain "activities in particular areas were fundamentally incompatible with the continued existence of the species."[244] For the Florida panther, the Recovery Plan calls for increased habitat and populations—not no-net loss or a decrease in habitat. Applying these principles, the Service should find the project would cause jeopardy to the species and deny the HCP.

a. The Habitat Loss Caused by the HCP will Jeopardize the Continued Existence and Recovery of the Florida Panther

As set forth above in these comments, the primary habitat loss caused by the HCP will cause jeopardy and inhibit recovery of the Florida panther. To reiterate:

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[238] *See*, 16 U.S.C. § 1526(a)(2); 63 Fed. Reg. 8859, 8861–62 (Feb. 23, 1998) (FWS statement on the "no-surprises" rule).
[239] 16 U.S.C. §1532(3); *see Sierra Club v. FWS*, 245 F.3d 434, 438 (5th Cir. 2001).
[240] *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 932 (9th Cir. 2008).
[241] *Id.*
[242] The HCP and DEIS are both inadequate for not analyzing the impacts on recovery. The term "conservation" in "habitat conservation plan" includes recovery. *See* 16 U.S.C. § 1532(3): "The term[]…'conservation' mean[s] 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 measure provided pursuant to this chapter are no longer necessary." *Id.*; *see Sierra Club v. Babbitt*, 15 F. Supp. 2d 1274, n. 3 (S.D. Ala. 1998) ("Pursuant to section 10, the FWS may issue a permit for the 'incidental take' of some members of the species, if the applicant for the permit submits a 'conservation plan' that will—as its name plainly connotes—help 'conserve' the entire species by facilitating its survival *and recovery*.") (Emphasis added.) Congress directed the Services to "consider the extent to which [a] conservation plan is likely to *enhance* the habitat of the listed species or increase the long-term survivability of the species or its ecosystem." HCP Handbook at 7-4.; H.R. Report No. 97-835, 97th Congress, Second Session (Emphasis added). The Service implicitly recognizes its obligation in the DEIS, stating it will "[e]nsure that issuance of any ITPs and implementation of the ECMSHCP achieve long-term conservation objectives for the covered species and affected ecosystems in southern Florida." DEIS at 10.
[243] *Nat'l Wildlife Fed'n v. NMFS*, 524 F.3d at 930.
[244] *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988).

- The Recovery Plan recognizes that "habitat loss, fragmentation, and degradation, and associated human disturbance are the greatest threats to panther survival and among the greatest threats to its recovery."[245]

- Protecting the primary habitat is necessary to save the Florida panther. According to the Service, the Primary Zone is "essential to the long-term viability and persistence of the panther in the wild."[246] Contrary to this, the HCP proposes to directly destroy 19,565 acres of these critical lands.[247]

- "The maintenance of existing home ranges and habitat function within the Primary Zone is *essential to maintaining a viable Florida panther population.* Assessments of potential impacts of proposed developments within the Primary Zone should strive to achieve *no net loss* (emphasis added) of landscape function or carrying capacity for panthers within the Primary Zone."[248]

- As the Kautz et al. Primary Zone and the Frakes et al. Adult Breeding Habitat support the only known breeding population unit of the Florida panther, "any loss of reproductive capability . . . can represent jeopardy because the survival of the entire species is significantly impaired."[249]

- Kautz et al. and the Recovery Plan both delineate primary habitat, as crucial for Florida panther continued survival and recovery, and recovery goals state that these lands be maintained in order to "contribute to a viable population."[250]

- In order to support even a critically-endangered population, Kautz et al states that "*no* habitat loss or catastrophes can be tolerated."[251] Root et al. (2004), also stipulated that "unless the current condition, amount, and configuration of the currently occupied panther habitat are safeguarded, the long-term viability of the panther is not secure."[252]

- According to Frakes (2015): "this [panther] population may already be at or close to carrying capacity, yet the panther population is below what is required for long-term genetic viability. . . . Further loss of adult panther habitat is likely to reduce the

[245] U.S. Fish and Wildlife Service, 2008. Florida Panther Recovery Plan, 3rd Revision. P. 36. As the FWS has concluded, "[r]apid development in southwest Florida has compromised the ability of landscapes to support a self-sustaining panther population." *Id.* at 38. As well as directly destroying panther habitat, rapid development is fragmenting what little habitat remains into small blocks thereby leaving panthers trapped on 'islands' of remaining habitat. As the Service explains, "small populations may become isolated, subjecting them to demographic and stochastic factors that reduce their chances of survival and recovery." *Id.* at 39.
[246] Recovery Plan at 27.
[247] HCP at 88.This does not include Primary Zone impacts from Town of Ave Maria.
[248] Kautz 2006 (quoted in attached Frakes report).
[249] US Fish and Wildlife Service, 1998. Endangered Species Act Section 7 Consultation Handbook. P. 4-37.
[250] Florida Panther Recovery Plan at 101.
[251] Kautz, et al, 2006. How much is enough? Landscape-scale conservation for the Florida panther. *Biological Conservation*: Vol. 130, p. 118-133. p. 129. (Emphasis added.)
[252] US Fish and Wildlife Service, 2008. Florida Panther Recovery Plan, 3rd Revision p. 96.

prospects for survival of the existing population, and decrease the probability of natural expansion of the population…."[253]

- "In conclusion, approval of the [HCP] by the USFWS would appreciably reduce the likelihood of survival and recovery of the Florida panther, due to significant habitat loss and fragmentation."[254]

The panther habitat unit or credits, *i.e.* the conservation banking system the HCP proposes, does not offset these jeopardy factors. As discussed above, it is based on the false premise that the species can tolerate further losses of privately owned primary zone habitat in South Florida. The best available science (Frakes et. al. 2015) shows that it cannot. The Florida Panther Recovery Plan also emphasizes that the *total* available area, quality and spatial extent the primary zone should be preserved to support the remaining population of endangered Florida panther. The HCP is contrary to the experts who caution the mitigation proposed (e.g., preservation of the undeveloped area for agriculture and low-density housing plus funding) is not sufficient to protect the species from jeopardy.

The Service must analyze the habitat loss proposed by the HCP along with the effect of authorizing past and concurrent take of the Florida panther. A cursory review of the Service's previous biological opinions addressing the Florida panther reveals that the Service has authorized the destruction of at least 96,850.95 acres of Primary Zone habitat, 20,205.76 acres of Secondary Zone habitat, and 27,760.56 acres of Dispersal and other panther habitat.[255] The Service has authorized the destruction and fragmentation of at least 144,817.36 acres of panther habitat since 2000.

Date	Project Name	Project Type	Primary Zone	Secondary Zone	Dispersal Zone/ Other Areas
2/19/99	Modified Water Delivery				
6/9/00	Naples Reserve	Development	688		
7/14/00	BCNP ORV Management Plan	ORV Trails			
1/30/02	Ft. Myers Mine #2	Mining	5269		
10/8/02	Winding Cypress	Development	1928		
4/1/03	Everglades National Park 2003-05 Prescribed Burn	Burn plan			
1/18/05	Bonita Springs Utilities Wastewater Treatment Plant	Development			78.92
2/22/05	Ave Maria University DRI	Development	2125	2902	
3/9/05	Mirasol Development	Development	709.77		

[253] Frakes, et al., 2015. Landscape Analysis of Adult Florida Panther Habitat pp. 15-16. (Emphasis added.) This report constitutes best available science, and is supplemented by the Frakes report submitted with these comments, which are "the best scientific and commercial data available" under ESA section 7(a)(2).
[254] Frakes 2018 Report attached, at p. 23.
[255] *See*Exhibit "Florida Panther Biological Opinions".

5/9/05	Worthington Holdings Southwest	Development		2,329.96	
6/29/05	Wentworth Estates	Development			917.19
9/8/05	Parklands Collier	Development			301.02
1/4/06	Collier County Airport Authority	Airport			66.95
1/4/06	Logan Blvd. Extension	Road Expansion			40.2
1/12/06	Tamiami Trail Portion of the Modified Water Deliveries	Bridge	9.28		
1/13/06	Journey's End	Development			65.87
1/26/06	The Orchard	Development			92.71
2/9/06	Firano at Naples	Development			40.48
2/22/06	Corkscrew Widening	Road Widening	62.5		
2/23/06	Summit Church	Development	10.03		
3/31/06	Coral Keys	Development	5.36		35.6
4/14/06	EAA Reservoir A-1	Reservoir			15456
4/16/06	Sabal Bay	Development			1017.62
11/2/06	USAF JIFE				
3/9/07	Airport Interstate Commerce Park	Development	273.44		
3/26/07	Alico Airpark Center	Development	165.5		
7/23/07	West Basin Storage Reservoir Project	Reservoir	144	5,236	4,955
8/28/07	Terafina (Saturna Falls)	Development	437		
10/15/07	Big Cypress Regional General Permit-83				
6/26/08	Immokalee Master Plan	Development	345.8	13.7	146.04
7/2/08	Kaicasa	Development	71.9		
7/23/08	Premier Airport Park LLP	Development	179.81		
12/17/08	McMullen Parcel	Development	40.4		
2/12/09	Florida Rock Industries Fort Myers Mine No. 2	Development	1,738	582	
2/26/09	Oil Well Road Widening	Road Widening	328.6		
3/12/09	Picayune Strand Restoration		8185		
3/16/09	C-111 Spreader Canal Western Phase 1 Project				
3/30/09	Citygate Development, LLC and GG II, LLC	Development	240		
4/17/09	L-30 Seepage Management Pilot Project				
8/21/09	Babcock Ranch Independent Special	Development	9367.91		
12/22/09	Decompartmentalization Physical Model				

5/21/10	Biscayne Bay Coastal Wetlands Project Phase 1				
10/18/10	Tamiami Trail Modifications: Next Steps Project				
11/18/10	Big Cypress National Preserve Final General Management Plan - Addition		16,808		
1/6/11	Big Cypress Seminole Indian Reservation Prescribed Burn Plans		26,611		
4/5/11	Big Cypress Seminole Indian Reservation Programmatic Home Site Plan	Development	12783	7507	4516
4/5/11	FWC Funding Assitance RCW Translocations				
6/28/11	Interstate 75 Recreation Area at the L-28 Canal		14.88		
8/4/11	State Road 80 from U.S. Highway 27 to County Road 833	Road Widening	78.35		
10/19/11	Hogan Island Quarry	Mining	967.65		
1/25/12	University Highlands	Development	208.42		
2/7/12	Atlantic Civil, Incorporated Mine	Mining	494.1		
3/6/12	I-75 Interchange and Access Road at SW FL Int. Airport	New Road	134.78	4.16	
4/30/12	Section 20 Mine	mining	670.85		
6/1/12	SR 80 Widening from Birchwood Parkway to Dalton Lane	Road Widening		39.58	
6/5/12	Alligator Alley Recreation Area at Mile Marker 63		7		
7/18/12	Hacienda Lakes	Development	672.42		
8/13/12	Off Road Vehicle Trail Heads and US Highway 41 Turn Lanes Project		14		
8/17/12	Seminole Tribe of Florida Rock Mine Expansion		205		
11/9/12	Big Cypress Seminole Indian Reservation Native Area Prescribed Burn Plan				
12/17/12	South Central Florida Express Citrus Rail Extension Project	road expansion		75.73	
5/7/13	Central Everglades Planning Project				

7/23/13	Florida City Prison	Development	37.9		
8/16/13	USDA Natural Resources Conservation Service Statewide Prescribed Fire Program				
2/19/14	Collier County Resource Recovery Park	Development	344.2		
6/22/14	Cemex Alico North Quarry - Phase 3C Expansion	Development	2262.58		
12/10/14	Seminole Tribe of Florida's 10 Year Plan				
2/4/15	State Road 80 from Indian Hills Drive to County Road 833	Road Widening		156.23	
6/29/15	State Road 80 Widening from Dalton Lane to Indian Hills Drive	Road Widening		169.75	
6/30/15	Everglades National Park Fire Management Plan				
9/21/15	WildBlue Residential Development	Development	800.33		
11/5/15	Argo Warm Springs Single-family Residential Development	Development		99.43	14.24
11/18/15	Treeline Distribution Center	Development		17.33	
1/28/16	State Road 29 widening from State Road 82 to County Road 80A	Road Widening	210.38	180.03	
3/16/16	I-75 Construction at mile marker 63	Road	10.61		
5/20/16	Golden Gates Estates Bridge	Road improvements		100.97	
8/9/16	The Place				
8/26/16	Rockedge Residential Development	Development	82.47		
9/19/16	Extension of Tree Farm Road and Woodcrest Drive	Road construction		4.49	5.92
2/2/17	Richmond Park Residential Development	Development		15.89	
2/28/17	New Runway 6R-24L at Southwest Florida International Airport	Airport	560.16		
3/22/17	Alico Road Widening from Ben Hill Griffin Road to east of Airport Haul Road	Road Widening	31.14		
4/6/17	San Marino	Development	136.98		7.79

5/9/17	Golf Club of the Everglades	Development		7.11	3.01
6/19/17	Addie's Corner Development	Development	23.3		
6/23/17	Florida Power and Light Nuclear Plants Units 6 and 7	Development	179.72		
1/23/18	Argo Corckscrew Crossing	Development	177.43		
3/26/18	Immokalee Sand Mine	Mining		764.4	
6/15/18	Lake Okeechobee Watershed Restoration Project				
6/18/18	Fire Management Plans Big Cypress Preserve and Florida Panther NWR				
TOTAL: 144,517.27 acres of panther habitat impacted			**96850.95**	**20205.76**	**27760.56**

The Service must take into account the tens of thousands of acres it has already allowed to be fragmented and destroyed in evaluating whether the additional 45,000 acres of destruction, plus more than 100,000 acres of uses supposedly more compatible-than-residential uses, will jeopardize the Florida panther. The Service must perform this analysis for every species covered in its intra-agency consultation on the HCP, but especially the Florida panther and eastern indigo snake.[256]

b. The Increased Traffic Caused by the HCP Will Lead to an Increase in Panther/Vehicle Collisions and Jeopardize the Panther

According to the DEIS: FWC data "reveals that vehicle strike mortalities are the number one cause of panther mortality"; and there have been 28 vehicle strike mortalities within the HCP area from 2013 to present (approximately 5.7 per year).[257] There have been 77 panther mortalities due to vehicle strikes in the RLSA area from 1981 to December 2017 (see Attachment I).

Just as there is no estimate of the numbers of panthers that will be "taken" as a result of the land-use changes from the HCP, there is no estimate of the numbers of panthers that will be killed or harmed by the increased roads and traffic that will result from the HCP. A valid BiOp must supply this analysis.[258]

[256] Exhibit "Eastern Indigo Snake Biological Opinions".
[257] DEIS at 60; *see also*, HCP at 69 (citing USFWS 2009; FWS 2017a, Appendix IV): "Panther-vehicle collisions and intraspecific aggression are the leading cause of panther mortalities."
[258] The Service is capable of providing such an analysis. See, e.g. the BiOp for the Corkscrew Crossing project in Lee County, Florida (attached) as Ex. ___. Even if the Service determines the number of likely injuries and deaths and devises an amount of acres to "offset" this, in this case it must deny the HCP and ITPs because: 1) they do not allow for any adjustment to their acreage or other alternatives (as they are outside the scope of the project); and 2) this would not be an alternative considered in the DEIS.

The DEIS addresses transportation issues by noting there will be long-term changes due to the HCP. The HCP would "generate additional traffic on local and regional roadways."[259] Vehicle miles would increase 6-6.8% annually over 50 years.[260] As a result, roadways would be "at much higher volumes."[261] Under the HCP alternative, "most roadways within the TAA [Transportation Analysis Area] will operate at much higher volumes," and "[a]dditional roadway capacity will be required to support projected future travel demand in the [HCP] area."[262] The HCP traffic increases "are anticipated to be greater than the No Action-Alternative."[263] It also notes increased resulting potential for panther-vehicle collisions.[264] But like the HCP, the DEIS does not analyze or project actual numbers of panther deaths or injuries in any way.

The Applicants have tried to skirt this issue by not specifying the increased number of roads and road-widening projects necessary to support this increase in residences and population, the increase in vehicles, or the resulting panther injuries and deaths. The HCP notes the Services' 5 year Endangered Species Act review for the Florida panther described the role of highways in the loss and fragmentation of panther habitat, as a barrier to movement and a significant source of panther mortalities[265]; that over time panther mortality has increased from vehicle collisions, as a function of increased panther population and increased traffic in the panther's range[266]; and that four crossings have been constructed in the HCP area (two where deaths occurred previously).[267] Nevertheless, the Applicants assert panther injuries and deaths due to increased car strikes are not part of the project or permits under review: *"[T]he permits and Plan do not anticipate that the Covered Activities will cause, and therefore do not cover, panther-vehicle collisions."*[268] The Service should deny the ITPs on this ground alone.[269]

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[259] DEIS at 4.
[260] *Id*.;tBy 2050, the PRT estimated 400,000 additional daily trips on existing roads + 425,000 daily trips on new roads.
[261] *Id*.
[262] DEIS at 78; *see also* HCP at 149: "Housing and commercial developments . . . are accompanied by the development of roads."
[263] DEIS at 78. The attached Frakes Report at Figure 2 also shows the increased roads that are "reasonably certain to occur" if the HCP is approved. Figure 2(a) is based on a Stantec analysis of roads necessary to support 45,000 acres of development. He also notes there will be new roads in the preserved areas. *Id*. at 12. Not only will roads increase in the HCP area, the increased population and commercial development will lead to increased roads, widenings and traffic outside the HCP area to access and serve the new development.
[264] DEIS at 89, 91.
[265] HCP at 65.
[266] *Id*. at 66.
[267] *Id*.
[268] HCP at 66 (emphasis added).
[269] Regardless of whether the applicant considered this impact as part of the "action" for which they seek incidental take authorization, it must be considered as part of the Service's NEPA analysis since it is reasonably foreseeable and interrelated with the Plan. *Klamath-Siskiyou Wildlands Center v. NOAA*, 99 F. Supp. 3d 1033,1060 (N.D. Cal. 2015) (finding pesticide use related to forestry action had to be considered). Additionally, the panther-strikes resulting from the increased traffic and construction of roadways contemplated by the Plan should be part of the impacts covered by the ITPs and ITS, which must be minimized or mitigated under section 10 and section 7. Also, because the "Covered Activities" are an "essential cause" of the roadbuilding and subsequent panther/vehicle collisions which are "reasonably certain to occur." they should have been included in the action for which incidental take authorization is sought. See 50 CFR 402.02 (definition of "effects of the action"). *And see Babbitt v. Sweet Home Chapter of Communities for a Great Oregon* 515 U.S. 687 (1995) (the term "harm" in "take"

The Applicants' failure to consider increased panther deaths and injuries due to the increased roadbuilding and traffic as part of the HCP, and the DEIS failure to project and quantify these impacts, renders those documents arbitrary and capricious and contrary to the ESA and NEPA.[270] A BiOp similarly limiting the action would be in violation as well. The ESA's implementing regulations define the phrase "[j]eopardize the continued existence of" as "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."[271] The Service is required to evaluate the "[e]ffects of the action," meaning "the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline."[272]

Thus, the Applicants' failure to consider increased panther deaths and injuries due to the increased roadbuilding and traffic as part of the HCP, (like the DEIS failure to project and quantify these impacts), not only renders those documents arbitrary and capricious in violation of the ESA and NEPA, it means a BiOp similarly limiting the scope of the action would be in violation of the ESA and the Administrative Procedure Act[273] as agency action that is arbitrary and capricious.[274]

The increased traffic that will result from this project and the inevitable increase in car strikes of panthers would also cause jeopardy.[275] Under Fish and Wildlife regulations, an action that

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"encompasses indirect as well as direct injuries . . . [and] § 10(a)(1)(B), strongly suggests that Congress understood § 9 to prohibit indirect as well as deliberate takings.") The Applicants' omission of this effect makes its application incomplete and inadequate since Service regulations require the applicant to include a "complete description of the activity sought to be authorized."" 50 C.F.R. § 17.22(b)(1)(i); 17.32(b)(1)(iii)(A).

[270] ESA Section 10 and Section 7 require a specific determination of impacts. The HCP and DEIS, however, do not provide enough information for this determination, and leave it to the future. Applicants have not provided the configuration of the residential and commercial development, *see* HCP at 77; and without this information the Service cannot know the configuration of all the roads, their number or location, and hence cannot fully assess traffic volumes or threats to the panthers. This applies to roads in the HCP area as well as access roads, and roads to the mining sites. This site-specific information is necessary in advance for a valid BiOp and ITS, as well as valid HCP/ITPs and NEPA analysis, and the Service is responsible for obtaining it. *See* 50 C.F.R. § 402.14 (the agency must use the best scientific and commercial data available "or which can be obtained during the consultation for an adequate review of the effects"; and 40 C.F.R. §1502.22 (agency duty to obtain information and required showing for incomplete or unavailable information).

[271] 50 C.F.R. § 402.02.

[272] *Id.*

[273] 5 U.S.C. § 706(2)(a).

[274] Furthermore, any mitigation measures purported to offset the take, e.g. habitat preservation or requiring fencing and crossings, whether in the HCP, NEPA documents, RPAs or RPMs, would have to consider the extent of the impact to be offset, *i.e.* the number of panthers likely killed or injured (by traffic or otherwise). Without this analysis, the efficacy of the off-set would be speculative and arbitrary. To justify a no-jeopardy finding, such measures must also be mandatory and enforceable. *See, See Ctr. for Bio. Diversity v. FWS*, 807 F.3d 1031, 1046 & n.12 (9th Cir. 2015); ; see also Endangered Species Consultation Handbook at 4-19 (1998) ("Since conservation measures are part of the proposed action, their implementation is required under the terms of the consultation.").

[275] Road construction associated with development does not just fragment habitat. It increases the likelihood of panther roadkills as traffic increases. The Service has stated that "[n]ew and expanded highways are likely to increase the threat of panther mortality and injuries due to collisions." Fish and Wildlife Service, Florida Panther 5-Year Review: Summary and Evaluation at 18 (Mar. 27, 2009) (hereinafter 'Five-Year Review'). For example, of the 24 panthers that died in 2009, 17 of those deaths were roadkills. *Scientific American*, Extinction Countdown,

reduces "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," will jeopardize the species.[276] Here, the *status quo* in the area is 5.7 panthers per year of mortality out of a population of as few as 120 total panthers. The Service should find the increased kills and injuries to panthers that will result from the project appreciably reduces the numbers of panthers and hence their chances for survival and recovery.

The Service cannot assume that other government programs, habitat acquisition, fencing or crossings will prevent jeopardy. The HCP notes the Florida Panther Recovery Plan calls for identifying current and planned roads that could be eliminated and retrofitted, and identifies several state and federal agencies involved, but does not state the applicant will do this or when it will occur.[277] And it does not establish that the funding will be sufficient. Instead it indicates the cost of retrofits is site-specific.[278]

The Service cannot rely on the Marinelli Fund for its BiOp or as mitigation because the ESA requires federal agencies to "insure" that their actions do not jeopardize species.[279] Adhering to the ESA's text, courts have recognized that the measures an agency relies upon to insure against jeopardy must be: reasonably specific, certain to occur, and capable of implementation; they must be subject to deadlines or otherwise-enforceable obligations; and most important, they must address the threats to the species in a way that satisfies the jeopardy and adverse modification standards.[280] Because the Marinelli Fund's administration is discretionary, the Service cannot tell what specific measures it will take, whether and when, or whether these will be tied to, or sufficient to, mitigate specific impacts.[281]

In *National Wildlife Federation v. NMFS*, for example, the Ninth Circuit invalidated a no-jeopardy BiOp that relied on the government's intent to install "future…structural improvements to aid safe passage" of salmon through dams.[282] The court held that "such improvements" may

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Motored Down: Record number of manatee, panther deaths in 2009 (Jan. 6, 2010). These deaths included a three- or four-month old kitten killed on New Year's Eve. *Id*. There were 24 roadkill mortalities (out of 30 total) in 2017, and 34 roadkill mortalities (out of 42 total) in 2016. This information is available through FWC here: http://myfwc.com/wildlifehabitats/managed/panther/pulse/.

[276] 50 C.F.R. § 402.02.

[277] HCP at 106.

[278] *Id*.

[279] 16 U.S.C. § 1536(a)(2).

[280] *Ctr. for Biological Diversity v. Rumsfeld*, 198 F. Supp.2d 1139, 1152 (D. Ariz. 2002); *and see, e.g., NWF v. NMFS*, 524 F.3d 917, 936 (9th Cir. 2008); *NRDC v.Kempthorne*, 506 F. Supp.2d 322, 357 (E.D. Cal. 2007); *NWF v. NMFS*, 254 F.Supp.2d 1196, 1211-12 (D. Or. 2003); *Pacificans for a Scenic Coast v. Cal Dep't of Transp.*, 2016 U.S. Dist. LEXIS 119479 (N.D. Cal. Sept. 2, 2016); *Nat'l Audubon Soc'y., Inc. v. FWS.* 55 F. Supp.3d 316, 354 (E.D.N.Y. 2014).

[281] See e.g, HCP at 105: the Marinelli Fund is "expected to generate approximately 150,000,000 over the 50-year term of the ITP, which *may* be dedicated for high-recovery actions (e.g., wildlife crossing design and construction; habitat restoration.)(emphasis supplied). The use of "may" indicates it may be spent on other actions. There is also no indication when the amounts will be accrued sufficiently to take certain actions such as multi-million dollar road-crossings. There is no commitment to do this before the roads are built and operating. Moreover, a mere "expectation" is not sufficient on which to base a no-jeopardy finding. *See, CWIS v. U.S. Environmental Protection Agency*, 905 F.3d 49, 72 (2d Cir. 2018).

[282] 524 F.3d at 935.

not be considered "without more solid guarantees that they will actually occur."[283] The court explained, "[Not] even a sincere general commitment to future improvements may be included in the proposed action in order to offset its certain immediate negative effects, absent specific and binding plans."[284]

Similarly, in *NRDC v. Kempthorne*, the court held that a process, even if mandatory, cannot be relied upon to support a no-jeopardy finding where there is no substantive obligation, "defined mitigation goals … [or] time for implementation prescribed."[285] The court explained "[a]lthough the *process* must be implemented by holding meetings and making recommendations, nothing requires that any *actions* ever be taken."[286]

Klamath-Siskiyou Wildlands Center v. NOAA[287] involved a 50 year ITP for owl and salmon. The court held NOAA could not factor in a non-applicant's conservation efforts into the analysis of the company's mitigation efforts because this relied on factors Congress did not intend it to consider. Mitigation is limited to actions by the "applicant."[288] Similarly, the Service here cannot factor in the projected efforts of the state and federal agencies, or the Marinelli Fund, on road crossings and other mitigation. Also, mitigation must be enforceable and specific, and consider the time-factors involved.[289]

Finally, there is no evidentiary support in the HCP or DEIS that the increased roads, traffic and panther deaths will *not* appreciably reduce the likelihood of the panther's continued survival. There is no population viability analysis or other science-based assessment to back up such a conclusion.[290] Nor can the Service assume that preserving habitat or foregoing development on certain lands is a sufficient offset for the panther injuries and deaths that will occur. As explained in the Frakes Report,[291] fencing and underpasses may not remedy the barriers associated with roadways which may prohibit free movement and expansion of the species (which the Recovery

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[283] *Id.* at 936.
[284] *Id.*
[285] 506 F. Supp. 2d at 355.
[286] *Id.* at 356.
[287] 99 F. Supp. 3d 1033 (N.D.Cal. 2015).
[288] *Id.* at 1049 ; 16 U.S.C. § 1539(a)(2)(B)(ii).
[289] 99 F. Supp. 3d at 1058.
[290] The Service cannot rely on the absence of numbers of panthers that will be killed to claim there is no evidence the project will cause jeopardy. *See NRDC v. Kempthorne*, 506 F. Supp. 2d 322, 360 (E.D. Cal. 2007) ("an agency cannot abdicate its responsibility to evaluate the impacts of an action on a species by labeling available information 'uncertain,' because doing so violates Congress' intent that the agencies 'give the benefit of the doubt to the species.'"). As explained in the legislative history of the ESA:
If the biological opinion is rendered on the basis of inadequate information then *the federal agency has a continuing obligation to make a reasonable effort to develop that information*. This language continues to give the benefit of the doubt to the species, and it would continue to place the burden on the action agency to demonstrate to the consulting agency that its action will not violate Section 7(A)(2). Furthermore the language *will not absolve federal agencies from ... developing adequate information on which to base a biological opinion*.
H.R.Rep. No. 96–697, at 12 (Conf.Rep.), *reprinted in* 1979 U.S.C.C.A.N. at 2576 (emphasis added). A no-jeopardy opinion based on a purported lack of information on increased panther injuries and deaths would be arbitrary and capricious.
[291] Frakes, RA, Impacts to Panther Habitat from the Proposed Eastern Collier Multiple Species Habitat Conservation Plan: A Quantitative Analysis **(**Oct. 7, 2018) at 22.

Plan finds critical to recovery); and even with them road kills can occur. The preservation of habitat simply does not compensate for the panther deaths and injuries that will result from the roads and traffic associated with the proposed 45,000 acre development.[292]

c. Climate Change

Another impact that the Service failed to analyze in the HCP and the DEIS, and hence cannot serve as the basis of a valid BiOp, is the compounding relation of the proposed intensified urban development of primary habitat with climate change impacts. The HCP mentions climate change in the context of whether it is an "unforeseen circumstance" that could require additional measures over the 50-year life of the HCP, and concludes it does not.[293] It also alleges that because the HCP area is 12 ft. above sea-level it will not be impacted, and that the HCP development actually helps mitigate the adverse impacts of climate change by providing in-land residences for population shifts away from the coast that will occur due to climate change.[294] It also alleges that by preserving 107,000 acres of panther habitat it mitigates the climate change impacts.

The DEIS includes a brief discussion at section 3.1.4 on climate change that notes sea level rise will not impact the HCP area because of its elevation. However, the DEIS, like the HCP, ignores completely the fact that because other habitat outside the HCP area will be lost and so it is desirable to preserve this higher ground as habitat. The U.S. Global Change Research Program projects that average sea levels will rise by 1 m or more by the end of the century. (Karl et al. 2009 at 24). And researchers have shown that a 1 meter rise in sea level would inundate 29% of existing panther habitat. (Whittle et al. 2008). Since a portion of this area is presumably primary panther habitat, protecting the primary habitat in the HCP is even more important. In other words, both the HCP and DEIS fail to analyze the fact that this development would be destroying more primary habitat, the loss of which is already threatened through a combination of rising seas, strong hurricanes, flooding, and other environmental disruptions caused by climate change.

Strong storms can also significantly damage inland habitat and bring floods which can kill the white-tailed deer, which is prey upon which panthers primarily feed. The loss of panther prey

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[292] The Service includes panther deaths due to increased traffic as "indirect" impacts of development in the 2012 Panther Habitat Assessment Methodology (at 2). But its use of acres to offset panther deaths is limited to projects "that may not have habitat loss factors but will have traffic generation factors." This project involves habitat loss factors, hence the methodology is inapplicable. Even if applicable here, it applies a "habitat surrogate" of 500 acres per year of habitat loss not to exceed 2,500 acres over a 5 year period. The HCP here lasts 50 years, hence acreage is not a proper surrogate for this HCP. Moreover, there is no basis for finding acres can offset roadway related mortality. The value of an individual panther death must be measured against the total population and the populations necessary for recovery, which this analysis does not do. Even adding 28 acres per panther to the base to give 32,951 acres per panther is arbitrary since it does not take into account these factors. The Service justifies this since it supposedly "could provide an incentive to implement crossings," but this is not explained and mitigation measures that only "could" happen are insufficient to satisfy section 10 or section 7, much less on which to base a no-jeopardy finding. In short, there is no biological connection between the amount of habitat preservation in the HCP and the actual foreseeable impact to panthers from the increased roads, vehicles and deaths. *See* Noss Report, attached.

[293] *See* HCP at 275-76.

[294] *Id*.

base due to the effects of climate change was not analyzed by the Service in the HCP and DEIS.[295]

In sum, the BiOp cannot simply rely on the HCP and DEIS since their analyses are inadequate and omit analyses of impacts to habitats from the effects of climate change. The combined stresses of climate change and development on the already small panther population and its shrinking habitat, especially the primary habitat, pose a dire threat to the species. The solution is not to approve another 45,000 acres of intense development. Rather, the Service should deny the HCP and protect the panther's remaining primary habitat to give the species a better chance of surviving and recovering and adapting to the effects of climate change.

3. Reasonable and Prudent Alternatives

If the Service determines that a proposed action is likely to result in jeopardy or loss of critical habitat, the Service must set forth reasonable and prudent alternatives (RPAs) to the action, if any.[296] Because they are intended to prevent jeopardy, these RPAs must be binding and enforceable.[297] And, the RPAs should not be limited to the alternatives presented in the HCP or the EIS. In this case, however, the Applicants have declared that no alternative would be acceptable because it would not meet its financial objectives. Thus if jeopardy is found by the Service it must deny the application altogether.[298]

A. If the Service Finds the Project Will Not Jeopardize Listed Species, It Must Prepare an Incidental Take Statement

If the Service determines that a proposed action will result in incidental take of listed species but that the action and associated incidental take will not violate the ESA Section 7 jeopardy standard, the Service must attach an incidental take statement to the biological opinion.[299] The incidental take statement sets forth the predicted impact to listed species,
the reasonable and prudent measures that are necessary to minimize take, and the terms and conditions for the implementation of those measures.[300] If the action agency complies with the

[295] The FWS has acknowledged these dangers elsewhere, writing that "[c]limate change in south Florida could exacerbate current land management challenges involving habitat fragmentation, urbanization, invasive species, disease, parasites, and water management." U.S. Fish and Wildlife Service, Biological Opinion for the Construction and Operation of the Fort Myers Mine No. 2 Project at 17-19 (Feb. 12, 2009); *see also* U.S. Fish and Wildlife Service, Biological Opinion for the Widening of Oil Well Road (Feb. 26, 2009). The FWS emphasizes that climate change's consequences "would be particularly dire for the panther[,] which has no populations outside of lowlying South Florida." *Id.*

[296] 16 U.S.C. § 1536(b)(3)(A).

[297] *See Forest Service Employees for Environmental Ethics v. U.S. Forest Service*, 726 F. Supp. 2d 1195, 1226 (D. Mont. 2010).

[298] The Service should deny the HCP and ITPs; however as an example of an alternative see the Conservancy's 2016 scoping comments and Exhibit C thereto. This reflects the recommendations made by the PRT, Kautz et al., and Frakes et al., that all urban development and mining be directed to the Secondary Zone. The Service's omission of this alternative from the DEIS makes the NEPA analysis arbitrary. *See, CEC v. Salazar*, 875 F.Supp.3d 1233,1247 (D.Colo. 2012).

[299] 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i)(1).

[300] 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i)(1).

terms and conditions of the incidental take statement, the expected take is exempted from the take prohibition set forth in ESA Section 9.[301]

With regard to actions over which the federal agency remains in control or with which the federal agency has discretionary involvement, re-initiation of formal consultation is required in the following instances:

a) If the amount or extent of taking specified in the incidental take statement is exceeded;

b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;

c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or

d) If a new species is listed or critical habitat designated that may be affected by the identified action.[302]

1. The Service Must Specify the Impact, Including All Direct and Indirect Impacts, Including Habitat Effects, the Number of Expected Florida Panther Injuries and Deaths, and the Effect on Recovery

If the Service finds no-jeopardy, and issues an ITS, it must specify, i.e. limit, the permissible "take" of the listed species as required by the Act. Under the Act's implementing regulations, an "incidental take statement" must set a numerical limit on the number of individuals of the listed species that may be taken, or, alternatively, use a surrogate measure, such as acres of habitat impacted, in which case it must describe "the causal link between the surrogate and take of the listed species, explain[] why it is not practical to express the amount or extent of anticipated take or to monitor take-related impacts in terms of individuals of the listed species, and set[] a clear standard for determining when the level of anticipated take has been exceeded."[303]

Service guidance similarly requires "a specific number" or, at the very least, "some detectable measure of effect" or a "sufficient causal link" that "can establish a measure of the impact on the species or its habitat and provide the yardstick for reinitiation" of consultation.[304]

[301] 16 U.S.C. §§ 1538(a)(1)(B), 1536(o)(2).
[302] 50 C.F.R. § 402.16.
[303] 50 C.F.R. § 402.14(i)(1)(i).
[304] Consultation Handbook at 4-50; *see also Oregon Natural Resources Council v. Allen*, 476 F. 3d 1031, 1037 (9th Cir. 2007) (explaining that, if the Service uses a non-numerical measure for take, it must choose a surrogate "able to perform the functions of a numerical limitation" by "set[ting] forth a 'trigger' that, when reached, results in an unacceptable level of incidental take . . . and requir[es] the parties to re-initiate consultation").

In the absence of a specific numerical value, the Fish and Wildlife Service must establish that no such numerical value could be practically obtained.[305] It is not enough for the Service to rely on a vague analysis of surrogate indices might be used in place of specific numbers.[306]

Even in those rare situations where take cannot be expressed numerically a surrogate *must* be developed that is "able to perform the functions of a numerical limitation" – *i.e.*, setting a meaningful trigger for reinitiation of consultation.[307] In *Miccosukee Tribe of Indians v. Bureau of Land Management*,[308] the Eleventh Circuit held an ITS to be invalid precisely because the Service had failed to demonstrate why a numerical ITS was impractical *and* because the chosen habitat-based surrogate was arbitrary and capricious.

Here, the HCP fails to identify any numerical limit on the number of panthers that are expected to be killed or harmed through increased vehicle-collisions or any threshold that will trigger re-initiating consultation if the fatalities are higher than anticipated. The HCP describes the acres of impacted habitat, but harm to the panther from habitat destruction is separate from harm through increased vehicle-related fatalities. Without providing the requisite numeric limit on vehicle-related panther deaths, the Service would be violating its obligations under the Endangered Species Act.

Nor should the Service skirt this requirement as the Applicants have attempted in the impact designation in the HCP. The Applicants claim they are seeking ITP protection from the prohibition on "take" only in regards to the construction of the roads in the project area, not from the increased traffic and panther deaths and injuries that will result from creating these roads, which are necessary for the increased tens of thousands of residences and related population increase in the area. The increased roads, population and traffic are an obvious direct (or indirect) effect of the project, and will cause a greater risk of increased panther deaths. Although the Service should quantify the expected deaths from construction, it should not stop there. It should not segment the ITS to address the construction impacts only, and should quantify all the expected panther car strikes and deaths that would result from this development.

In this case, the habitat developed and purported to be preserved cannot serve as a surrogate for numbers of panthers killed or harmed, whether by habitat loss and/or car strikes, since this would violate the rule that an ITS cannot be coextensive with the scope of the project. In *Oregon Natural Resource Council v. Allen*,[309] for example the Service had issued an ITS that allowed for the take of "all spotted owls associated with" the agency proposal, which meant that the ITS could not be exceeded until the project itself is complete. As the court explained, even if the actual number of taking was higher than anticipated, the ITS would not halt the project because

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[305] *Arizona Cattle Growers' Ass'n v. U.S. Fish and Wildlife, Bureau of Land Management*. 273 F. 3d 1229, 1249 (9th Cir. 2001).
[306] *Id*.
[307] See, 50 C.F.R. §§ 402.14(i)(4) and 402.16 (setting out triggers for re-initiation of consultation); Interagency Cooperation—Endangered Species Act of 1973, as Amended; Incidental Take Statements, 80 Fed. Reg. 26,832-01 (May 11, 2015) ("an additional purpose [of an ITS] is to identify reinitiation triggers that provide clear signals that the level of anticipated take has been exceeded and would, therefore, require reexamination through a reinitiated consultation (H.R. REP. NO. 97-567, at 26-27 (1982); 50 C.F.R. § 402.14(i))").
[308] 566 F.3d 1257, 1275 (11th Cir. 2009).
[309] 476 F. 3d 1031 (9th. Cir. 2007).

the ITS was coextensive with the scope of the biological opinion. As a result the "Incidental Take Statement and BiOp are rendered tautological, as they both define and limit the level of take using the parameters of the project."[310] In addition, the ITS could not require that the operation of the project cease upon reinitiation of consultation, which violates the requirement that when an agency reinitiates consultation, the Services must issue a new BiOp *before* the agency action may continue.[311]

2. The Service Must Specify Reasonable and Prudent Measures and Terms and Conditions

To comply with ESA Section 7(b)(4)(ii), the Services must specify in the ITS those "reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize" the impact of incidental taking on the species.[312] Further, ESA Section 7(b)(4)(iv) requires that the ITS:

> sets forth the terms and conditions (including, but not limited to, reporting requirements) that must be complied with by the Federal agency or applicant (if any), or both, to implement the [reasonable and prudent measures].[313]

At a minimum, these should reflect and comply with the Florida Panther Recovery Plan. An HCP should not be in conflict with recovery plans established for the species and must utilize the best available science. Because an HCP must not "appreciably reduce the likelihood of the survival and recovery of the species in the wild" or "jeopardize the continued existence"[314] of a species, "contribution to recovery is often an integral product of an HCP[315]." Contribution to recovery should be the goal of this HCP with it fully supporting all Recovery Plans goal and objectives. For the panther, that means protecting the quality, quantity, and full spatial extent of the Primary Zone and fully analyzing, avoiding, minimizing and mitigating any traffic-related impacts. Regarding these latter impacts, reasonable and prudent measures should require foregoing several of the roadways consistent with the PRT study, limiting the number and location of roads, and firm fencing and crossing protections (e.g. underpasses), in place before the construction and operation of the roads. This would require actual studies to determine where, when and how many of these protections are constructed and utilized. The Service cannot leave this to future State or Federal road programs or to the vague and unenforceable Marinelli Fund projects.

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[310] *Id*. at 1039.
[311] *Envtl. Prot. Info. Ctr. v. Simpson Timber Co.*, 255 F. 3d 1073, 1076 (9th Cir. 2001) (citing *Mt. Graham Red Squirrel v. Madigan*, 954 F. 2d 1441, 1451 (9th Cir. 1992)); *see, e.g.*, U.S. Dep't of the Interior, Fish and Wildlife Service, 4-1-98-F628, Programmatic Biological Opinion: Central and Southern Florida Project Comprehensive Review Study Initial Draft Plan 1, 27 (Aug. 7, 1998) (stating that if take amount exceeded, all actions causing such take must cease pending reinitiation of consultation).
[312] 16 U.S.C. § 1536(b)(4)(C)(ii); *see* 50 C.F.R. § 402.14(i)(1)(ii).
[313] 16 U.S.C. §1536(b)(4)(C)(iv).
[314] HCP at 3-20.
[315] *Id*.

B. The Service Will Violate its ESA Section 7 Duty to Not Jeopardize the Continued Existence of the Species if it Approves the Take Caused by the Project

The Service may permit incidental "takes" as long as the requirements of Section 10 are satisfied, including that those takes "will not appreciably reduce the likelihood of the survival and recovery of the species in the wild."[316]

The plain language of Section 7(a)(2) requires that "[e]ach Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any agency action . . . is not likely to jeopardize the continued existence of any endangered species or threatened species."[317] The plain intent of Congress in enacting this statute "was to halt and reverse the trend toward species extinction, whatever the cost. This is reflected not only in the stated policies of the Act, but in literally every section of the statute."[318]

Applying these principles we request that the Service deny the HCP. It provides for intense development in panther primary habitat, which will cause direct and indirect panther mortality and inhibit the recovery called for by the Recovery Plan, without adequate mitigation, and even the mitigation proposed is not sufficiently defined or certain to occur.

VI. The Draft EIS Fails to Meet the Requirements of NEPA

The DEIS fails to meet the minimum requirements of NEPA. First, the Service has undermined public involvement by denying the public enough time or meaningful opportunities to ask questions and provide information. Next, the Service's alternatives analysis is inadequate because it fails to analyze a reasonable range of alternatives, and distorts the comparison of alternatives between the two alternatives it does analyze. The Service's chosen alternative then fails to meet the Service's stated purpose and need. Furthermore, the Service fails to evaluate whether the HCP's mitigation measures are adequate and fails to take an independent, hard look direct, indirect, and cumulative impacts. Finally, the Service improperly limits the scope of analysis.

A. The Service Has Subverted Meaningful Public Participation on the Draft EIS

NEPA regulations provide that "public scrutiny [is] essential to implementing NEPA." 40 C.F.R. § 1500.1(b). "Federal agencies shall to the fullest extent possible . . . encourage and facilitate public involvement in decisions which affect the quality of the human environment," "[m]ake diligent efforts to involve the public in preparing and implementing their NEPA procedures," and provide "public notice of . . . the availability of environmental documents so as to inform those persons . . . who may be interested or affected." 40 C.F.R. §§ 1500.2(d), 1506.6(a), 1506.6(b). NEPA regulations require that agencies "involve . . . the public, to the extent practicable…" 40 C.F.R. § 1501.4(b); *see also Diné CARE v. Klein*, 747 F. Supp. 2d 1234, 1261 (D. Colo. 2010) (accord). The agency must make "a meaningful effort to provide

[316] 16 U.S.C. § 1539(a)(1)(B)(iv)).
[317] 16 U.S.C. § 1536(a)(2)(emphasis added).
[318] *TVA v. Hill*, 437 U.S. 153 at 183.

information to the public affected by an agency's actions." *Klein*, 747 F. Supp. 2d at 1262; *see also Bering Strait Citizens v. COE*, 524 F.3d 938, 953 (9th Cir. 2008) (recognizing that "[a]n agency, when preparing an EA, must provide the public with sufficient environmental information, considered in the totality of circumstances, to permit members of the public to weigh in with their views and thus inform the agency decision-making process.").

The Service has subverted meaningful public participation on the DEIS by denying the public accurate documents, enough time to review the documents, and a public hearing to ask questions and provide information.

The most recent version of the HCP made available to the public is dated August 2018. The Service included this latest version as a supporting document on its regulations.gov docket for the HCP DEIS.[319] However, the DEIS itself analyzes an April 2018 version of the HCP submitted by the Applicants in support of its application for ITPs.[320] This earlier version is not attached to the Service's regulations.gov docket, nor has the Service provided the public with information about the differences between the two versions. In the interest of meaningful public comment, the Service should have analyzed the latest version of the HCP in its DEIS – the same August 2018 version provided to the public. Additionally, the version that was released on October 19, 2018 was missing a page regarding the PRT alternative; a version with the missing page available was posted well into the comment period.

Furthermore, the DEIS and HCP are inconsistent with each other. The assertion in the DEIS that the impacts will only be partially offset by preservation of lands is in conflict with the HCP's repeated assertion that the area designated as Preserve/Plan-Wide Activities and Very Low Density Use will more than fully offset impacts.[321] The DEIS's analysis of wildlife impacts is also in conflict with the HCP. For example, the HCP clearly identified an Audubon's crested caracara communal roost within the HCP Area that could be impacted by Covered Activities.[322] However, the DEIS states the communal roost area is located in "preservation" areas, and thus fails to analyze the impacts to the species resulting from the loss of this communal roost to intensive development under the HCP Alternative.[323]

Finally, the Service only provided the public 45 days to review these inconsistent documents and provide substantive comments. The Service denied the public's request for additional time even though the Service also denied requests for a public hearing, which would have given the public, the Applicants, and the Service another opportunity to meaningfully share information about this project. The CEQ has determined that prescribed universal time limits for the entire NEPA process are too inflexible; an agency is encouraged to set time limits that are appropriate to the action.[324] The Service may consider the following in determining time limits: (1) potential for

[319] Regulations.gov, Docket ID FWS-R4-ES-2018-0079
[320] DEIS at 11
[321] *Compare* HCP at 36 *with* DEIS at 89.
[322] HCP at 215.
[323] DEIS at 83.
[324] 40 C.F.R. 1501.8.

environmental harm; (2) size of the proposed action; (3) number of persons and agencies affected; (4) degree to which relevant information is known and if not known the time required for obtaining it; and (5) degree to which the action is controversial, among other things.[325] The HCP area contains critical public lands, flowways and wildlife corridors, and large swaths of habitat for listed species. The rural land in Eastern Collier is vital to countless imperiled species and would impact the scrub jay, caracara, wood stork, red cockaded woodpecker, snail kite, eastern indigo snake, bonneted bat, and the Florida panther, amongst other species.

This HCP proposal has an extreme potential for environmental harm. It is the largest HCP east of the Mississippi River, and would impact the human environment far beyond the boundary of the HCP boundary area into adjacent municipalities and counties.

There will be many impacts beyond that those to wildlife, including to water resources, water supply, sensitive public lands, and loss of prime productive agricultural lands. The HCP is not within the public interest. The DEIS and HCP are controversial and warranted additional time for public and stakeholder review, involvement, and commenting.

Furthermore, additional time was warranted since the Service did not allow for adequate public commenting opportunities. The Service denied requests for a public hearing. NEPA's implementing regulations require that a public hearing be held "whenever appropriate" such as "substantial environmental controversy concerning the proposed action or substantial interest in holding the hearing."[326] Given the 'standing room only' attendance at the 2016 scoping meeting, the substantial amount of detailed comments received by the Service on this issue, and significant issues raised by the public during scoping, it is evident that the Service should have held a public meeting.

A comment period of 45 days was entirely inadequate for interested stakeholders to provide meaningful comments on a project that will have unprecedented impacts of this magnitude. The Service's decision on this HCP will forever shape the future of Collier County, southwest Florida, and imperiled species covered by the HCP. Because of these deficiencies, the Service has failed in achieving NEPA's dual purpose: to inform decision making, and to disclose information to the public about how a federal action will affect the environment and public health.[327]

B. The Draft EIS's Alternatives Analysis is Inadequate

1. The Draft EIS Fails to Analyze a Reasonable Range of Alternatives

[325] 40 C.F.R. 1501.8(b).
[326] 40 C.F.R. 1506.6(c)(1).
[327] 40 C.F.R. §§ 1500.1(b), (c); *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 371 (1989) ("NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.").

Under NEPA, agencies must consider "alternatives to the proposed action."[328] The analysis of alternatives is "the heart of the environmental impact statement."[329] In considering alternatives, the Service shall "[r]igorously explore and objectively evaluate *all* reasonable alternatives."[330] An agency must follow the "rule of reason" when preparing an EIS, and "this rule of reason governs 'both *which* alternatives the agency must discuss, and the *extent* to which it must discuss them.'"[331]

Agencies "should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public," including a "no-action" alternative ... Agencies must "rigorously explore and objectively evaluate" these alternatives "so that reviewers may evaluate their comparative merits." ... "Without substantive, comparative environmental impact information regarding other possible courses of action, the ability of an EIS to inform agency deliberation and facilitate public involvement would be greatly degraded."

Wildearth Guardians v. BLM, 870 F.3d at 1226-27 (internal citations omitted).

"An agency must look at every reasonable alternative" within the "nature and scope of the proposed action." *Western Organization of Resource Councils v. BLM*, 2018 WL 1475470, at *7 (D. Mont. 2018) (citing *Friends of Yosemite Valley, v. Kempthorne,* 520 F.3d 1024, 1038 (9th Cir. 2008) (quoting *Alaska Wilderness Recreation & Tourism Ass'n v. Morrison*, 67 F.3d 723, 729 (9th Cir. 1995)). The agency must evaluate a broader range of alternatives where a proposed action constitutes "an integral part of a coordinated plan to deal with a broad problem." *'Ilio'ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1098 (9th Cir. 2006) (internal citations omitted).

The Court limits its review of the sufficiency of alternatives considered to whether the agency considered alternatives "necessary to permit a reasoned choice." *California v. Block*, 690 F.2d 753, 767 (9th Cir. 1982). Whether the agency's "selection and discussion" of the alternatives "fosters informed decision-making and informed public participation" provides the "touchstone" for the Court's analysis of the sufficiency of alternatives considered by the agency. *Id.*

An agency first violates this provision of NEPA where it considers "essentially identical" alternatives. *Friends of Yosemite Valley*, 520 F.3d at 1039. An agency also may violate NEPA when it fails to examine all reasonable alternatives. *'Ilio'ulaokalani Coal.*, 464 F.3d at 1095. The Court admittedly should afford the agency "considerable discretion in defining the scope of an EIS." *Nw. Res. Info. Ctr. v. Nat'l Marine Fisheries Serv.*, 56 F.3d 1060, 1067 (9th Cir. 1995). Statutory objectives "serve as a guide" to determine the reasonableness of objectives outlined in

[328] 42 U.S.C. § 4332(2)(C)(iii).
[329] 40 C.F.R. § 1502.14.
[330] *Id.* at § 1502.14(a) (emphasis added).
[331] *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d at 195 (citation omitted).

an EIS. *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853, 866 (9th Cir. 2004); *New Mexico ex rel. Richardson v. Bureau of Land Mangagement*, 565 F.3d 683 (10th Cir. 2009).

Federal agencies must also "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E); 40 C.F.R. § 1508.9(b). This alternatives analysis is characterized as the "heart" of an EIS, 40 C.F.R. § 1502.14, and alternatives must be given full and meaningful consideration. *Ctr. for Biol. Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008). An EIS "must provide a rigorous and objective evaluation of all reasonable alternatives" and provide "a clear basis for choice among options." *Fla. Wildlife Fed'n*, 401 F. Supp. 2d at 1331. "The existence of a viable but unexamined alternative renders an EA inadequate." *W. Watersheds Project v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013) (internal quotation marks and alterations omitted).

The Service has failed to analyze additional alternatives that would have less severe impacts on the listed species they are charged to protect (e.g., Panther Review Team (PRT) alternative and Conservancy of Southwest Florida vision map alternative) (see Attachment C which depicts differences between the PRT and Conservancy alternatives). These alternatives have been available to the Service for at least 8 years, since 2010,[332] and was the major recommendation in the comments provided to the Service in the scoping process.[333] Furthermore, the Service stated its intention to "consider a range of alternatives, including the proposed action… a no-action alternative… and alternative to consider variations in the scope and location of the covered activities."[334] Yet, no alternatives were analyzed beyond the HCP and No Action Alternatives.

The PRT Alternative is not "very similar" to the HCP Alternative, as stated in the DEIS.[335] The PRT Alternative identified almost 25,000 acres of lands more suitable for development within the lands the applicant owns (see Attachment F). The Service and the PRT should share the goal of "enhancing panther conservation,"[336] and should consider the science-based alternatives provided by the PRT, Conservancy, as well as recommendations provided in the Frakes analysis of the HCP Alternative.

Furthermore, the claim that some of the PRT's recommendations are "no longer available due to planning and permitting activities that have occurred"[337] in subsequent years is vague. It is unclear what activities the Service is referencing. The Immokalee Sand Mine has not yet been

[332] Conservancy of Southwest Florida, 2010. Letter to USFWS regarding Proposed Eastern Collier Multi-Species Habitat Conservation Plan. July 8, 2010.
[333] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. Final Scoping Report.
[334] US Fish and Wildlife Service. Eastern Collier Multiple Species Habitat Conservation Plan Environmental Impact Statement project webpage. <www.easterncollierhcpeis.com> Accessed November 13, 2018.
[335] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 19.
[336] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 20.
[337] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 23.

permitted based on the Conservancy's recent FOIA with the US Army Corps of Engineers regarding this project.[338]

2. The Draft EIS Improperly Distorts the Comparison of Alternatives

a. The So-called "Preserve" Area

The DEIS bases its alternatives analysis on a best-case scenario for the HCP Alternative by assuming all 107,000 acres that would be designated for Preservation/Plan-Wide Activities and Very Low Density Use would be used solely for preservation. The DEIS inexplicably calls this a "conservative assumption," even after acknowledging the "uncertainties in the proposed types, locations, and intensities of traditional rural use" that would still be allowable uses in the "preserve" area. These allowable land uses include: crop cultivation, ranching/livestock operations, forestry and silviculture, oil and gas exploration and development. Assuming that lands with such allowable uses will be solely used for preservation can hardly be said to be a conservative assumption, and basing an alternatives analysis on this unsupported assumption leads to skewed results in the DEIS.

A true conservative approach would only consider the acres that will be placed under conservation easement to generate the Panther Habitat Unit credits (perhaps 86,716 acres[339]); more appropriately, the Service would only consider lands that are actually vulnerable to development and not already protected by other programs (14,805 acres, as seen in Attachment A).

The Service raises concerns that rural activities could "continue indefinitely" under the No Action Alternative.[340] However, these activities (crop cultivation, ranching/livestock, forestry/silviculture, recreation, oil and gas exploration and production, etc.) are the types of activities proposed in the Preserve/Plan-Wide Activities under the HCP Alternative.[341] Further, it is unclear if more intense land uses could be allowed on the Preserve/Plan-Wide Activities areas. The DEIS states that "activities that could occur on the 107,000 acres would be deed restricted and no more intensive than the types of agricultural, ranching, and other traditional rural land use activities that have occurred historically throughout the ECMSHCP area."[342] There is no mention of deed restrictions in the HCP. The Service fails to ensure that no parcel of land would be allowed to intensify beyond the current use; it is not enough to state that traditional rural land use activities will continue in the area. Changing from pasture to row crops on one acre of land, for

[338]US Army Corps of Engineers, 2018. ORM Status Report. Created July 19, 2018. Provided October 19, 2018 through Freedom of Information Act request.

[339] Eastern Collier Property Owners, 2018. Eastern Collier Multiple Species Habitat Conservation Plan. August 2018. Prepared by Stantec Consulting Services. P. 90.
[340] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 17.
[341] Eastern Collier Property Owners, 2018. Eastern Collier Multiple Species Habitat Conservation Plan. August 2018. Prepared by Stantec Consulting Services. P. 29.
[342] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 2, 18 80, 120.

example, will have impacts to species that would need to be considered by the Service. The HCP proposes Low Density development (1 unit/50 ac) over 2,087 acres of the Preserve/Plan-Wide area, as well as Base Zoning (or Development) on 2,431 acres of the Half Circle L Ranch.[343] Frakes et al 2015 states that "in excellent (high P value) panther habitat, when human density increased from 0 to 10 people per km^2, the model predicted a 0.3 decrease in the probability of panther use." (Frakes et al. 2015 at 11). Developing 1 unit (typically 2.58 people per household) per 50 acres (meaning 4.94 units per square kilometer) would be about 12.75 people per km^2 (247 acres). Developing at 1 unit per 5 acres would equate to about 127.45 people per km^2. There appears to be no consideration of activities in the Preserve/Plan-wide area as potential impacts to the Florida panther or any of the covered species.

b. The DEIS Unlawfully Assumes that Individual Permitting Will Authorize Full Development Allowable Under the Rural Lands Stewardship Area (RLSA) and Rural Lands Stewardship Program (RLSP)

The DEIS unlawfully inflates the impacts of the No Action Alternative by presuming that ESA requirements imposed on "piecemeal" authorization of development will impose no meaningful restrictions on the location or extent of such development.

In its initial description of the No Action Alternative, the DEIS states that there are two possible scenarios under which development may occur under the RLSA—base zoning development, whereby lands are developed at a density of 1 residence per a five acre lot, and voluntary participation in the RLSP, which would allow some areas to be developed at a higher density (up to 2.5 dwelling units per acre) in exchange for setting aside other lands within the HCP area from residential or commercial development. *See* DEIS at 17–18. In light of these possible scenarios, the DEIS states "the No Action Alternative would allow for a mixture of base zoning and optional RLSP-based development." DEIS at 18. The DEIS provides no quantitative assessment of what it anticipates that mixture would likely be, nonetheless, it appears to assume throughout that the full amount of development that could possibly occur under the RLSA and RSLP will indeed take place regardless of whether the Service grants the ITPs associated with the proposed ITPs, and regardless of the ESA obligations that would apply to "piecemeal" permitting of such development.

For example, in the section of the DEIS assessing impacts of the alternatives on traffic, the DEIS assumes that the No Action Alternative will result in full development of all possible lands at the base zoning density of 1 residence per five acres. *See* DEIS at 75. The analysis of the traffic impacts of the No Action Alternative turns on the assumption that 30,000 new residences will be developed by 2060 at the base zoning density. *See id*. The DEIS states that it arrived at this figure by assuming that all land within the HCP area available for development at the base

[343] Eastern Collier Property Owners, 2018. Eastern Collier Multiple Species Habitat Conservation Plan. August 2018. Prepared by Stantec Consulting Services. P. 25.

zoning density would indeed be developed, and that 112,000 acres are available within the HCP area for such development. *Id*.[344]

Other sections of the DEIS similarly assume that the HCP area will be completely developed through a mixture of base zoning and denser RLSP development regardless of the Service's approval of the ITPs ultimately at issue here, and regardless of the ESA requirements that would apply to individual permitting of such development. Despite cursory acknowledgment that regulatory requirements would apply, the DEIS apparently assumes that the required compliance of each individual project with ESA requirements would not impose any meaningful restraint on the extent or location of development under the No Action Alternative.

Notably, there is no rational basis for presuming that full development permissible under the RLSA program would also be permissible under the ESA. Most obviously, the RLSA program was adopted in 2002, prior to Kautz et al 2006, Frakes et al 2015, and the 2008 Florida Panther Recovery Plan. Consequently, its identification of lands open to residential development in no way reflects the available science about the habitat needs for the Florida panther.

Essentially, the "No Action Alternative" here impermissibly presumes that one way or another, the HCP applicants will be able to develop all of their land. *See, e.g, Conservation Council for Hawaii v. Nat'l Marine Fisheries Serv.*, 97 F. Supp. 3d 1210, 1236–37 (D. Haw. 2015) ("no action alternative" violated NEPA where it presumed applicant's activities requiring authorization would occur).[345] It assumes that all of the take and related impacts from the full development scenarios under the "No Action Alternative" will be authorized by the Service through individual actions anyway. As a result of this error, the DEIS fails to evaluate an alternative that accurately or realistically reflects the extent of development and other activities that will occur if the ITPs sought here are denied.

As a consequence of this error, the DEIS obscures the impacts of the HCP Alternative. Throughout the evaluation of effects, the DEIS discusses the impacts of the HCP Alternative relative to the purported "No Action Alternative" rather than against the present baseline where no take has yet been authorized. This persistently undermines the purpose of the EIS by providing an assessment of the incremental difference between the HCP Alternative and a hypothetical worst case development scenario where sprawled development in vitally important

[344] Notably, fully developing 112,000 acres of land the base zoning density would actually only result in a maximum of 22,400 new residences (112,000 acres/ 5 acres per residence = 22,400 residences). The DEIS nonetheless states that it used socioeconomic data to project that there would somehow be 30,000 new residences under the base zoning scenario. *See* DEIS at 75; *see also* DEIS Appendix F ("Base Zoning Scenario") (providing cursory summary of socioeconomic modeling). The DEIS fails to provide adequate information to explain this apparent discrepancy, the effect of which would be improperly inflating the traffic impacts of the No Action Alternative.

[345] Moreover, the DEIS also assumes that under the No Action Alternative the HCP proponents will continue other management activities on their lands that may actually reflect on-going ESA section 9 violations. For example, the No Action Alternative assumes the proponents will continue the same vegetation clearing and prescribed burning activities for which they have sought a shield from liability under the ITPs at issue here. *See* DEIS at 17-18 (describing continuation of agricultural activities, ranching, forestry/silviculture, and invasive species control); HCP at 285 (saying that applicants have already been conducting vegetation clearing and prescribed burning activities); HCP at 34 (seeking take coverage for land management activities).

habitat somehow proceeds unchecked by the ESA, rather than providing a full assessment of the impacts of authorizing the enormous amount of take encompassed by the sought ITPs. *See e.g.*, DEIS at 92 (stating that impacts on Florida panther under the HCP Alternative would be "limited" and "likely be less adverse than the No Action Alternative").

The No Action Alternative analysis repeatedly assumes that without the HCP, developers will not opt into the voluntary RLSP. This assumption is also unfounded, as it is clear developers must opt in to the program to achieve the level of and types of development the Applicants are seeking under the HCP. Similarly, the DEIS assumes that sprawling ranchette development (1 house per 5 acres) will occur instead if developers are not issued an ITP. However, ranchette development still must comply with the ESA, so it is unclear why the Service assumes ranchette development would occur rather than more concentrated, dense development under the No Action Alternative.

The DEIS fails to account for the reality that the RLSA largely dictates the same contours for preserve versus development as the proposed HCP, so that there is no real conservation benefit for the HCP. The DEIS also fails to account for how ITP will actually expedite the development that would otherwise occur under the RLSA. The Service states that under the HCP Alternative, "large expanses of land would be set aside…", yet the Service fails to acknowledge that participation in the RLSA program under the No Action Alternative would secure largely the same area, and that protections exist for much of these lands regardless of participation in the RLSA program. In order to build a town or village (a Stewardship Receiving Area) under the RLSA program, regardless of HCP approval, development credits are needed through the local program. Furthermore, the RLSA area is within the consultation area for all of the proposed Covered Species; consultation with the Service for panther impacts would likely utilize the same Panther Habitat Assessment Methodology that is utilized in the HCP to require lands set aside in preserve to provide compensatory Panther Habitat Units (PHUs).

The DEIS assumes under the No Action Alternative that the result will be a "lack of additional planned preserved areas within the ECMSHCP area"[346] and that "future land use regulations including the County's RLSP allow for future land use that ranges in intensity from conservation to surface mining."[347] It further incorrectly assumes "The No Action Alternative would likely result in permanent change of land use from the present mostly agricultural use to other uses (such as earth mining, oil and gas exploration, residential and commercial development), resulting in urban or suburban sprawl."[348] In fact, the RLSA program, regardless of approval of the HCP, has layers of protections over all but about 15,000 acres of the Preserve area (see Attachment A). Even if development is proposed outside of participation in the RLSA program, the local land use code regulates development on the designated Flowway Stewardship Areas, Habitat Stewardship Areas, and Water Retention Area[349] (seen in green at Attachment A). These

[346] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 79.
[347] *Ibid*. P. 2.
[348] *Ibid*. P. 3.
[349] See Conservancy of Southwest Florida , 2016. Letter to US Fish and Wildlife Service. Eastern Collier HCP and

designated areas make up the majority of the HCP Preserve. Additionally, the state designated Area of Critical State Concern also further protects lands within the Preserve/Plan-Wide area (see Attachment A).[350] Many Stewardship Sending Areas (SSAs) have been designated thus far and account for about 50% of the Preserve/Plan-Wide area, and the remainder is largely within the Area of Critical State Concern which minimizes the removal of native vegetation clearing (see Attachment B).

The Service provides no details on how it projects development to occur over time in the No Action Alternative, and what proportion will be ranchette development or more intensive development under the RLSA program overlay.

The DEIS incorrectly claims that "the ECMSHCP was designed to work in concert with the current RLSP."[351] In fact, the amount of development proposed in the HCP hinges on changes to the local land use comprehensive plan. The current RLSA program only allows for 43,312 acres of new towns and villages with 100% participation[352] (and note this is a much higher amount of development than was originally contemplated when the program was adopted; the amount of intensification anticipated at that time was 16,800 acres).[353] Yet the HCP requests incidental take permit authorization for 45,000 acres.[354] Additional developments such as the currently proposed Winchester Lakes SRA[355], and additional mines that are likely to be converted to residential uses in the future, notably Hogan Island Quarry, are also proposed outside of the HCP mechanism, adding additional acreage beyond the 45,000 sought through the HCP.

The Service states that the No Action Alternative would not facilitate community-scale stormwater infrastructure, resulting in increased risk of flooding.[356] However developments participating in the RLSA program, regardless of HCP issuance, would have stormwater management systems and most would meet the criteria requiring the issuance of Environmental Resource Permits, pursuant to Part IV of Chapter 373, Florida Statutes, and implementing regulations.

C. The Service's Chosen Alternative Fails to Meet the Service's Stated Purpose and Need

In its Purpose and Need statement, the Service states that in order to fulfill its responsibilities under Section 10 of the ESA it will:

EIS scoping. April 25, 2016. Citing Collier County Growth Management Plan. Future Land Use Element. RLSA Overlay.

[350] See Conservancy of Southwest Florida , 2016. Letter to US Fish and Wildlife Service. Eastern Collier HCP and EIS scoping. April 25, 2016. Citing Florida Administrative Code.

[351] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 2, 18, 80.

[352] Memo from Wilson Miller to Collier County (September 18, 2018) "Rural Lands Stewardship Area 'Maturity'."

[353] See Conservancy of Southwest Florida , 2016. Letter to US Fish and Wildlife Service. Eastern Collier HCP and EIS scoping. April 25, 2016. Citing Report and Recommendations of the Collier County Rural Lands Assessment Area Oversight Committee for the Immokalee Area Study page 40. Created by WilsonMiller. 2002. And Collier County Board of County Commission Adoption Hearing Executive Summary. October 22, 2002. Page 3.

[354] Eastern Collier Property Owners, 2018. Eastern Collier Multiple Species Habitat Conservation Plan. August 2018. Prepared by Stantec Consulting Services. P. 32.

[355] http://cvportal.colliergov.net/CityViewWeb/Planning/Status?planningId=25239 .

[356] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 68.

- Ensure the issuance of any ITPS and implementation of the ECMSHCP achieve long-term conservation objectives for the covered species and affected ecosystems in southern Florida.
- Ensure that the conservation actions approved with issuance of any IPS occur within a landscape-scale conservation design capable of maintaining ECMSHCP conservation for the covered species indefinitely
- Ensure that the ECMSHCP would not jeopardize listed species or result in destruction or adverse modification of critical habitat prior to any issuance of any ITPs.[357]

For the reasons stated in this comment letter, including the HCP's failure to minimize or reduce and mitigate species impacts to the maximum extent practicable, the Service chosen alternative fails to meet these objectives.

D. The Draft EIS Fails to Evaluate Whether the HCP's Mitigation Measures Are Adequate or Effective

The Service attributes wildlife corridor conservation only to the HCP Alternative.[358] However, Dr. Robert Frakes' modeling of the HCP Covered Activities area (utilizing modeling published in the study Landscape Analysis of Adult Panther Habitat), found that the Camp Keais Strand and the Summerlin Swamp corridor areas would be severed and fragmented. (Frakes et al. 2015 at 18). The findings of Dr. Frakes demonstrate that the Service's conclusion that "despite the narrower cross section of these two corridors proposed in Alternative 2 [the HCP Alternative] these corridors will be preserved and maintained to encourage wildlife movements towards planned wildlife under passes"[359] is incorrect.

Additionally, in his 2018 review of the HCP, Dr. Frakes found that not only would significant losses of Adult Breeding Habitat occur via direct impacts (16,779 acres), but an additional 4,753 acres would be lost to use by adult panthers in the Preserve area, due to the adjacent Covered Activities area effects.[360] These areas of Preserve should not be considered as minimization/mitigation, yet the DEIS improperly assumes –without analysis—that the Preservation/Plan-Wide Activities area will maintain linkage between core Florida panther population areas, including preservation of corridors.[361]

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[357] DEIS at 10
[358] *DEIS at 4, 80.*
[359] The Summerlain Swamp corridor, and the northwest new corridor from CREW to Ok Slough. The Camp Keais Strand corridor is not addressed in this section of the DEIS.. US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 81.
[360] Frakes, 2018. Impacts to Panther Habitat from the Proposed Eastern Collier Multiple Species Habitat Conservation Plan: A Quantitative Analysis **(**Oct. 7, 2018).
[361] DEIS at 89

While under both the No Action Alternative and the HCP Alternative ranchette low density development and RLSA-style villages and towns would be possible, it is worth noting that the ranchette development (typically 1 unit per 5 acres) provides a higher value to panthers than urban development such as is contemplated under the HCP (valued by biologists as a "3" out of 10 instead of "0" out of 10). This is acknowledged in the DEIS: "under the base zoning scenario, lower development density would be less of a deterrent to panther movement than more concentrated development."[362]

Further, the RLSA program and Area of Critical State Concern already include protection for areas within the Camp Keais Strand and Okaloacoochee Slough corridor areas. Additional preservation, beyond what is offered in the HCP Alternative (such as those provided in the Conservancy of Southwest Florida and Panther Review Team alternatives that were not analyzed, as well as available literature such as the East Collier County Wildlife Movement Study (Noss et al. 2006)) would be needed to offset the impacts to existing corridors from adjacent development, as demonstrated in the report by Dr. Robert Frakes. (Frakes 2018).

The Service defies its own understanding of species' needs when it states that "because the majority of the HCP area is used for agriculture, and these lands no longer support natural communities, development conducted under the RLSP would likely occur mainly on agricultural lands and would have lesser impacts on natural ecological communities…. The areas designated for Covered Activities would predominantly be located on agricultural lands, which no longer support natural ecological communities."[363] It is widely documented in the Service's recovery plans and species best available science the importance of agricultural lands as part of the habitat matrix for species like the Florida panther, eastern indigo snake, and crested caracara (see Attachment H).[364] New studies regarding the Florida bonneted bat also speak to the use of agricultural lands by this species. (Bailey et al. 2017).

The RLSA program, Collier County's construct, allows development activities within the "Open" areas which includes agricultural lands. The RLSA program, however, was adopted in 2002, prior to Kautz et al 2006, Frakes et al 2015, and the 2008 Florida Panther Recovery Plan, and thus does not reflect the best available science. Therefore, the Service cannot rely on the RLSA program in its decision-making, and the DEIS fails to analyze the impacts of more intensive development on these agricultural lands.

E. The Service Failed to Take a Requisite "Hard Look"

The DEIS contains a number of inaccuracies and unsupported assumptions, often copied directly from the applicant's HCP, that lead to skewed results in the DEIS's alternatives analysis and

[362] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 86.
[363] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 79.
[364] In example, see Kautz, et al, 2006. How much is enough? Landscape-scale conservation for the Florida panther. *Biological Conservation*: Vol. 130, p. 118-133. Jackson, S., 2013. Home Range Size and Habitat Use of the Eastern Indigo Snake at a Disturbed Agricultural Site in South Florida: A Thesis Presented to Florida Gulf Coast University. Morrison and Humphrey, 2001. Conservation Value of Private Lands for Crested Caracaras in Florida. Conservation Biology, Vol. 15, No. 3, Pages 675-684.

represents a failure of the Service to take an independent "hard look" at the HCP's direct, indirect, and cumulative impacts as follows:

1. The Service Adopts the HCP's Mischaracterization of Future Growth

The Service incorrectly claims that the HCP is "generally consistent with the SWFEIS."[365] The HCP is not consistent with any of the growth scenarios that the SWFEIS had projected. None of the five SWFEIS ensembles considered, which represent a range of conservative to aggressive growth projections, show eastern Collier County with the location or magnitude of development as proposed in the HCP. In all of the ensembles, only agricultural and preservation land uses were considered for the HCP area.

Furthermore, the DEIS fails to take a hard look at the HCP's mischaracterization of the "Florida 2070" report. The HCP is severely out of step with smart growth principles and is more in alignment with the "Florida 2070 Trend" which would result in more development and sprawl (see Attachment D) than the "Florida 2070 Alternative" which would focus on more compact communities, protection of natural and agricultural lands. The Conservancy's vision map is most in alignment with the Florida 2070 Alternative (see Attachment E).

2. The Service Inaccurately Describes Effects on Geology and Soils

The Service states "The RLSP does not place any restriction on where earth mining or oil and gas exploration can occur. Therefore, under the No Action Alternative, any landowner could pursue earth mining activities anywhere within the HCP area, regardless of habitat or connectivity."[366] As stated above, local and state protections provide protections for areas within the RLSA.[367] For example, 31,100 acres of Flowway Stewardship Areas, even if not within a finalized Stewardship Sending Agreement (SSA), are protected from "residential uses, general conditional uses, earth mining and processing uses, and recreational uses (layers 1-4)…."[368] Without rationale, the Service attributes more wetland impacts and future residential development after completion of mining activities to No Action Alternative, but not to the HCP Alternative.[369]

3. The Service Inaccurately Describes Effects on Land Use

[365] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 9.
[366] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 18, 69, 73.
[367] See Conservancy of Southwest Florida , 2016. Letter to US Fish and Wildlife Service. Eastern Collier HCP and EIS scoping. April 25, 2016. Citing Collier County Growth Management Plan. Future Land Use Element. RLSA Overlay.
[368] Collier County Growth Management Plan. Future Land Use Element. RLSA Overlay. Group 5 Policies. Policy 5.1.
[369] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 69.

The Service again inaccurately states that the No Action Alternative would allow land use conversion to other uses (earth mining, oil and gas exploration, residential and commercial development) "likely anywhere within the ECMSHCP."[370] Again, this is false. See above, as existing local and state protections provide restrictions on mining, commercial, and residential within all but 15,000 acres of the Preserve area.

4. The Service Inaccurately Describes Effects on Water Resources

The Service again erroneously attributes regional flowway protection only to the HCP Alternative.[371] Again, the RLSA program, regardless of HCP issuance, provides protection in the Flowway Stewardship Areas. Unfortunately, some wetlands and water resources are contained within the Covered Activities Areas – about 2,417 acres of wetlands and water (see Attachment G). The HCP Alternative includes the Rural Lands West project. This development has received a permit to destroy 543.39 acres of wetlands, including those within the Shaggy Cypress/Camp Keais Strand ecosystem.[372] The Rural Lands West project has an active application with the Army Corps of Engineers for its 404 Clean Water Act dredge and fill permit. Attachment G depicts wetlands that are within the Covered Activities areas.

5. The Service Inaccurately Describes Effects on Transportation, Air Quality, and Climate Change

The Service states that "land preservation through the ECMSHCP is expected to further help avoid and minimize transportation-related impacts to the [Florida panther] by … preventing development in areas that might otherwise result in increased traffic,"[373] but in reviewing the transportation network necessary to service the development in the configuration seen in the HCP Alternative, the PRT estimated that about 200 miles of new and expanded roadways would be needed.[374] It estimated that nearly 1 million daily vehicle trips would be added to the landscape by 2050 with development in the HCP Alternative configuration.[375]

The Service wrongly attributes increased air pollutant emissions to the No Action Alternative and states that the HCP Alternative is not expected to accelerate air pollution effects.[376] According to the submitted report by Smart Growth America[377], the HCP Alternative is very sprawling and "not self-contained"[378] as the Service claims. The PRT analyzed the impacts of 45,000 acres of development in a footprint that is nearly identical to the submitted HCP; it found

[370] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 68.
[371] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 3.
[372] South Florida Water Management District, 2018. Environmental Resource Permit No. 11-03949-P. Permittee Collier Enterprises Management Inc, et al. Rural Lands West. Date Issued April 3, 2018.
[373] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 91.
[374] Florida Panther Protection Program Technical Review Team, 2009. Technical Review of the Florida Panther Protection Program Proposed for the Rural Lands Stewardship Area of Collier County, Florida. Final Report.
[375] *Ibid.*
[376] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 71.
[377] *Smart Growth America, 2018. The Fiscal Implications of Development Patterns: Rural Lands Stewardship Area, Collier County, Florida. September 2018.*
[378] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 71.

that the HCP would increase daily traffic trips on one segment of SR 29 from 7,100 daily trips in 2011 to 23,686 by 2050,[379] and on another segment of SR29 from 19,100 daily trips in 2011 to 44,499 by 2050:[380] a magnitude increase of 3.8 and 2.9 respectively.[381] On Corkscrew Road, the daily traffic trips would increase by 23.5 times the magnitude, from 14,500 trips in 2011 to 44,886 in 2050.[382] The existing development Ave Maria, which is included in the HCP, has not demonstrated reduction in vehicle trip lengths.

No dispute remains that meaningful consideration of the environmental damage caused by greenhouse gas emissions is required as part of any NEPA review of direct, indirect and cumulative impacts of agency action.[383]

6. The Service Inaccurately Describes Effects on Cultural Resources

The Service states that cultural resources will be more vulnerable under the No Action Alternative.[384] However, it falsely assumes that the 93,000 acres would be developed outside of a process that triggers cultural resource consultation. Developments, irrespective of approval of the HCP, would still be subject to state and federal cultural resource requirements.

7. The Service Inaccurately Describes Effects on Bald Eagles

The Service states that "bald eagle nests typically have not occurred within the Covered Activities area"[385] and that the "two bald eagle nests documented… are located in areas designated for preservation."[386] The Service has not done itsdue diligence. There is at least one documented nest on the Rural Lands West property which is included in the HCP Alternative within the Covered Activities Area.[387] The DEIS states that nests within the Covered Activities areas can "avoid incidental take… by providing a minimum 200-meter (660-foot) buffer."[388] However, that is not proposed at Rural Lands West, where new roadway, stormwater lakes, and homes are proposed within the 660 foot buffer area.[389]

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[379] Segment of SR29 north of SR82.
[380] Segment of SR29 south of SR82.
[381] Florida Panther Protection Program Panther Review Team, 2009. Technical review of the Florida Panther Protection Program Proposed for the Rural Lands Stewardship Area of Collier County. Table 6.3-1.
[382] *Ibid*.
[383] *See, e.g., Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1217 (9th Cir. 2008) ("The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct."); *Sierra Club v. FERC*, 867 F.3d 1357, 1371 (D.C. Cir. 2017) (NEPA review must consider the direct and indirect effects of greenhouse gas emissions of the alternatives).
[384] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 4.
[385] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 82.
[386] *Ibid*. P. 54.
[387] Collier Enterprises, 2017. Rural Lands West Biological Assessment. Revised June 27, 2017. Provided to the USFWS on July 26, 2017.
[388] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 82.
[389] South Florida Water Management District, 2018. Environmental Resource Permit No. 11-03949-P. Permittee

8. The Service Inaccurately Describes Effects on Crested Caracara

The Service states that the three known nest locations and communal roost might not be protected from development under the No Action Alternative.[390] Yet, the HCP *ensures* that they will be developed, as these areas would be converted to Covered Activities if the HCP Alternative is approved. The Service states that two of the three nests are within the Preserve/Plan-Wide area.[391] However, that does not appear to be accurate. The caracara nest and buffer zone near Immokalee Road appears to be mapped within the Covered Activities area.[392] Further, the known nest south of Oil Well Road is proposed to be converted to a roadway/viewing platform by the Rural Lands West development, a Covered Activities area.[393] The juvenile gathering area is also within the Covered Activities Area.[394] Furthermore, Rural Lands West had documented significant caracara activity on the property including on areas proposed to be converted to development.[395]

9. The Service Inaccurately Describes Effects on Florida Panther

The Service falsely assumes that mining operations will not be required to undergo federal ESA consultation process with no HCP in place.[396] The entire RLSA is within the Florida panther consultation zone. Mines that are being pursued outside of the HCP mechanism by Barron Collier/CEMEX (Immokalee Sand Mine and Hogan Island Quarry) have been subject to federal consultation for the Florida panther and other species.[397]

The Service unbelievably states that "direct harm to the FP is not anticipated..."[398] in its DEIS. Widespread take in the form of harm, harassment, and mortality are certain to occur as a result of the HCP Alternative and its interrelated and interdependent activities. Within a 25-mile action area of the RLSA, there have been 269 panther mortalities due to vehicle strikes, as of December 2017 (see Attachment I).

The Service attributes forest conservation to the HCP alternative.[399] Regardless of HCP issuance, the RLSA program, as well as Collier County comprehensive plan and ACSC regulations, would

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Collier Enterprises Management Inc, et al. Rural Lands West. Date Issued April 3, 2018.
[390] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 83.
[391] *Ibid.*
[392] Eastern Collier Property Owners, 2018. Eastern Collier Multiple Species Habitat Conservation Plan. August 2018. Prepared by Stantec Consulting Services. P. 128, Figure 5-1.
[393] South Florida Water Management District, 2018. Environmental Resource Permit No. 11-03949-P. Permittee Collier Enterprises Management Inc, et al. Rural Lands West. Date Issued April 3, 2018.
[394] See map "20140108 Caracara gathering areas Collier…."
[395] Collier Enterprises, 2017. Rural Lands West Biological Assessment. Revised June 27, 2017. Provided to the USFWS on July 26, 2017.
[396] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 86.
[397] US Fish and Wildlife Service, 2011. Hogan Island Quarry Biological Opinion. October 19, 2011. US Fish and Wildlife Service, 2010. Immokalee Sand Mine Request for Additional Information. June 17, 2010.
[398] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 89.
[399] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 89.

provide protections for forested areas, which are largely contained with the Flowway Stewardship Areas and Habitat Stewardship Areas.

Contrary to the Service discounting of the agricultural lands within the Covered Activities, they are in a configuration in which intensification as proposed in the HCP Alternative, would eliminate 16,779 acres of Adult Breeding Habitat, including 4,753 acres of loss from within the Preserve/Plan-Wide Activities area that would also be impacted from the Covered Activities area intensification.[400]

10. The Service Inaccurately Describes Effects on American Kestrel, and Sandhill Crane

The Service claims that American kestrel is not documented within the HCP area. It has been documented on Pepper Ranch.[401] The DEIS also claims that Florida sandhill cranes have not been documented. The Service has received the Rural Lands West Biological Assessment in which sandhill cranes have been documented.[402]

11. The Service Inaccurately Claims Development within the HCP Area Would be Capped

The HCP will not cap development as the Service states ("only 45,000 acres of land within the ECMSHCP area would be available for development"[403]) or preclude "future piecemeal development expected under base zoning."[404] There are lands outside of the HCP that are owned by the Applicants, as well as lands owned by non-applicants. Each will still be able to utilize the Collier County RLSA program to develop towns and villages. They will also be able to develop, as the local land use code allows, under the existing base zoning. More realistically, the amount and location of development will be increased and more sprawling with the HCP in place, since the HCP would streamline permitting, does not minimize impacts by directing development to more compact configurations or less impactful areas, and would require urbanization and infrastructure that would build up this portion of the County, drawing adjacent development interest.

12. The Service Inaccurately Claims the HCP Alternative Will Result in Better Fire Management

The Service states that the HCP Alternative would result in management of natural areas reducing fuel loads.[405] However, the Florida Panther National Wildlife Refuge comment letter, provided during the scoping period, shared substantial concerns about reduced fire management

[400] Frakes, 2018. Impacts to Panther Habitat from the Proposed Eastern Collier Multiple Species Habitat Conservation Plan: A Quantitative Analysis **(**Oct. 7, 2018).
[401] *Collier County, 2009. Conservation Collier Pepper Ranch Preserve Interim Management Plan, Final Draft.*
[402] Collier Enterprises, 2017. Rural Lands West Biological Assessment. Revised June 27, 2017. Provided to the USFWS on July 26, 2017.
[403] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 4.
[404] *Ibid*. P. 79.
[405] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018. P. 68.

for the Refuge and other public lands as a result of the HCP: "Future development within the Covered Areas will encroach upon the current Conservation areas such as Florida Panther NWR. These conservation lands are intensely managed using prescribed burning to manage fire adapted ecosystems for the benefit of wildlife and to reduce high fuel loads that run the risk of more catastrophic harmful wildfires…. We often have to burn with a southerly or easterly wind direction…. The locations for high density residential and commercial developments in the HCP area are directly in the path of our current smoke management protocols…. I suspect the managers of Corkscrew Regional Watershed have similar prescriptions…."[406] The location of the developments is problematic to continued resource management in our public lands, particularly lands that are managed to the benefit of listed species like the panther

13. The Service Fails to Analyze Effects on Socioeconomics and Environmental Justice

By not analyzing these issues in the DEIS, the Service doesn't evaluate the effects of conversion of approximately 43,000 acres of productive agriculture that does have economic and social connections to the surrounding communities (such as the town of Immokalee), citizens working in the agricultural business, etc.

14. The Service Fails to Address Scoping Comments

The Service failed to address many issues raised by commenters in the scoping process, including timing of easements, drinking water supply, monitoring strategy, and jobs.[407]

F. The Service Improperly Limits the Scope of Analysis

The Service unlawfully limits the scope of analysis. For example, the DEIS's transportation analysis failed to include in its roadway network many roads and roadway widening projects previously identified as necessary to support the level of intensive development contemplated by the HCP.[408] These roads include:

- County Line Road (new road)
- Corkscrew Road (existing road widening)
- Little League Road (between SR 82 and county line) (new road)
- Grove Road (new road)
- Immokalee Cr (new road)
- Immokalee Loop Road (new road)
- Gopher Ridge (new road)

[406] US Fish and Wildlife Service, Florida Panther National Wildlife Refuge, 2016. Letter regarding Public Comment Eastern Collier Multispecies Habitat Conservation Plan and EIS.
[407] US Fish and Wildlife Service, 2018. Draft Environmental Impact Statement. September 2018.
[408] *Compare* DEIS Appendix F, Table 4 *with* WilsonMiller, Inc., "Conceptual Build-Out Roadway Network" Map; *see also* WilsonMiller, Inc., Memorandum Re: Rural Lands Stewardship Area Conceptual Build-Out Roadway Network, December 2, 2008 ("The 'Conceptual Build-Out Roadway Network' map…. represents the roadways needed to support the potential development of a maximum of 45,000 acres….").

- Lake Trafford (existing road widening)
- Little league road (between West Clox St and Immokalee Rd) (new road)
- CR 846 (between SR 29 and the eastern RLSA border) (existing road widening)
- Stockade (new road)
- Serenoa Cr (new road)
- Serenoa East (new road)
- Citrus West (new road)
- Immokalee Ext. (new road)
- Citrus East (new road)
- Immokalee Road (between intersection at Randall all the way to where it hits Camp Keais) (existing road widening)
- Ave Maria Blvd. (portions new road and portions existing road widening)
- Anthem Parkway (new road)
- Ave East (existing road widening)
- Horse Trial (new road)
- Oil well Rd: (portions new road and portions existing road widening)
    - (between Immokalee Rd and Everglades Blvd)
    - (between Oil Well Grade Road and Ave Maria Blvd)
    - (between Camp Keis and the eastern RLSA border)
- Randall Blvd and Randall Ext. (new road)
- Golden Gate Blvd. (existing road widening)

G. The Draft EIS Fails to Adequately Analyze Cumulative Impacts

The DEIS fails to adequately analyze cumulative impacts, including impacts from large-scale development and climate change.

1. Population growth and large-scale development

A leading cause of habitat loss is human population growth and corresponding land uses. A 2000 analysis of potential ecological connectivity in Florida found that only about half the land identified for habitat connectivity was publically owned and managed (Hoctor 2000 at 984-999). Meanwhile, *Florida 2060: A Population Distribution Scenario for the State of Florida* predicts Florida's population will grow by 49 percent by 2060. The Florida Fish and Wildlife Conservation Commission's *Wildlife 2060: What's at stake for Florida?* estimates that such population increases could result in the conversion of 7 million acres from rural and natural to urban uses (Cerulean 2008 at 2). It predicts that nearly 3 million acres of existing agricultural lands and 2.7 million acres of native habitat will be claimed by roads, shopping malls and subdivisions; 1.6 million acres of woodland habitat may be lost; wetland habitat may become more isolated and degraded; 2 million acres of lands bears depend on may disappear; and gopher tortoises may lose a fifth of their existing range (Cerulean 2008 at 4). While Florida is projected to increase its population statewide by 50% by 2060, Collier County is projected to grow from 251,377 residents in 2000 to 963,051 in 2060, and Hendry County is projected to grow from 36,210 residents in 2000 to 79,468 in 2060 – outpacing the expected statewide average at 73% and 54% respectively (Zwick 2006).

"A discussion of cumulative impacts is a necessary part of any assessment," and the analysis "'must identify (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, present, and proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate.'" *Great Old Broads For Wilderness v. Kempthorne*, 452 F. Supp. 2d 71, 84 (D.D.C. 2006) (*quoting Grand Canyon Trust v. FAA*, 290 F.3d 339, 345 (D.C. Cir. 2002)). Here, the Service failed to evaluate the cumulative impacts of other projects affecting wildlife and habitat in the same region, including at least 25 major development projects proposed in the habitat for endangered Florida panthers and other species. These projects will put increased pressure on the single population of Florida panthers and on other wildlife that use the area proposed for the HCP, and should have been included in the Service's cumulative impact analysis of the HCP. *See Nat'l Wildlife Fed'n v. Souza*, No. 08-14115-CIV, 2009 WL 3667070, at *26 (S.D. Fla. Oct. 23, 2009) (agency required to discuss cumulative impacts from other developments where proposed project was "next to several other permitted proposed developments . . . and an existing development").

Thus, the following large-scale development is planned for Hendry and Collier counties (and adjacent Lee County) must be included in the cumulative impacts analysis for the HCP:

- Florida Power and Light Hendry Clean Energy Center (proposed 3,750 MW gas-fired electrical power plant), Hendry County: The company purchased an initial 3,000 acres for this project and has recently acquired an additional 4,000 acres adjacent to the original purchase. The plant would be located in completely rural land known to be excellent Florida panther habitat. It is wholly inside the proposed "Panther Glades" Florida Forever Project. When completed, the Hendry power plant will be among the three largest fossil fuel power plants in the United States (Fleshler 2015b at 1-2, Beltz 2015 at 1).

- Rural Lands West (formerly Town of Big Cypress) in Collier County: This proposed 4,000-acre development is part of the 200,000-acre Rural Lands Stewardship Area (RLSA) of eastern Collier County. Other residential and commercial developments within the RLSA are likely as that is the purpose of the stewardship area. The Rural Lands West project is adjacent to and just west and north of the Florida Panther National Wildlife Refuge. Its southern boundary is just north of the Picayune Strand State Forest. This entire region is extremely important habitat for Florida panthers (Collier 2015 at 1-3).

- WildBlue (residential development) Lee County: These 2,960 acres of currently undeveloped land lie east of Florida Gulf Coast University between Corkscrew and Alico Roads (Private 2016 entire, Doane 2015 at 1-3).

- Corkscrew Farms (residential development) Lee County: This 1,300 acre development lies further east on Corkscrew Road from the WildBlue development referenced above. It is surrounded by the Corkscrew Regional Mitigation Bank to the north and the Corkscrew Regional Ecosystem Watershed Flint Pen Strand to the South. In addition to direct habitat destruction, both this project and WildBlue will greatly increase traffic on

Corkscrew Road and presumably Florida panther road mortality (Cameratta 2010 at 1-11, Smith 2015 at 1, Doane 2015 at 1-3).

- SR 82 widening: This project includes 23 miles of road widening in Lee and Collier Counties. The road runs north of and adjacent to important public lands such as the Wild Turkey Preserve, Corkscrew Mitigation Bank, and Pepper Ranch Preserve (FDOT 2016b at 1).

- SR 29 widening: An 18 mile expansion from Collier County to Hendry County, this road widening project is adjacent to or near major public lands— e.g. Spirit of the Wild Wildlife Management Area and the Okaloacoochee Slough State Forest —both of which constitute important Florida panther habitat. The project report provides the following projection of increased traffic: "Traffic volumes on S.R. 29 are projected to increase from a current volume of 6,200 vehicles per day to 23,800 vehicles per day by the year 2035 as documented in the project traffic report" (FDOT 2016a at 1).

- Snake Road widening, Hendry County: This plan is for an approximately 8-mile expansion inside the Big Cypress Seminole and Big Cypress Miccosukee Indian Reservations. This road cuts across an important wildlife corridor connecting the Big Cypress National Preserve to public and private lands in Southeast Hendry County and the Southwest corner of Palm Beach County (e.g. the Rotenberger and Holey Land Wildlife Management Areas) (Blackhouse 2011 at 1).

- Town of Babcock Ranch: This project covers 18,000 acres just north of the Caloosahatchee River and east of SR 31, and it proposes approximately 20,000 new homes. The project, coupled with additional development that is likely to occur in the future, could severely restrict potential expansion of the Florida panther beyond the Caloosahatchee River. The project lies at the nexus of the Babcock-Webb Wildlife Management Area, the Babcock Ranch Preserve, and the Fisheating Creek Wildlife Management Area. This is a currently existing wildlife corridor that connects (or could connect) Florida panther habitat. Its functionality as a corridor could be greatly diminished by the completion of this project now in progress (Kitson 2016 at 1-2).

- Burnett Oil Company, Inc. Nobles Grade 3-D Seismic Survey (Burnett 2014 at 1-7): This first phase of four planned phases of oil exploration is currently underway throughout 110 square miles of the Big Cypress National Preserve. The four-phased oil exploration would ultimately impact 366 square miles of Big Cypress National Preserve.[409] Burnett Oil has driven 33-ton "vibroseis" vehicles and other supporting vehicles off-road through wetlands and Florida panther habitat to generate seismic signals to map oil and gas

[409] Burnett Oil Company, Inc., *Nobles Grade 3-D Seismic Survey Big Cypress National Preserve and Big Cypress National Preserve Addition Plan of Operations* (2014), *available at:* https://parkplanning.nps.gov/document.cfm?parkID=352&projectID=53498&documentID=66527; National Park Service, *Revised Environmental Assessment for A Proposed Oil and Gas Plan of Operation: Nobles Grade 3-D Seismic Survey within Big Cypress National Preserve proposed by Burnett Oil Company, Inc.* (2016), *available at:* https://parkplanning.nps.gov/document.cfm?parkID=352&projectID=53498&documentID=71803.

located beneath the Preserve. The first phase of oil exploration has already caused damage to "primary zone" habitats, which are habitats essential for the survival of the endangered Florida panther, and this damage has not been restored.[410] Impacts have primarily resulted from vibroseis vehicles and other vehicles driving off-road through wetlands, damaging mature cypress trees and other vegetation, causing extensive soil rutting and compaction, leading to changes to localized hydrology. Seismic survey crews also cut down cypress trees in the paths of the vibroseis vehicles. Seismic survey activities are impacting the habitat quality for panthers by fragmenting and degrading natural plant compositions, in turn making the impacted areas less suitable for habitation. Panther dens are not being adequately mapped within the seismic survey area and any dens which have been identified do not have adequate protection based on the recommended amount of buffer area between seismic survey activities and dens. Additionally, the potential for the dispersal of and impacts to the panther's prey species may reduce the amount of food available to panthers. Avoidance of the seismic survey area in Big Cypress by panthers may result in more frequent crossings of roads, putting panthers at increased risk for death or injury by vehicular collision. Impacts to panther habitat caused by the oil exploration have not been restored or mitigated as of the date of these comments.[411] Further oil and gas development would increase vehicular traffic in the area. In the event oil is found, impacts from oil development will be even more severe, including the construction and operation of oil pads, drill rigs, and miles of new roads and other infrastructure, including wastewater disposal facilities, and vehicular traffic. In addition to the impacts of oil exploration, further development will cause even greater impacts to wildlife, including habitat fragmentation and degradation, mortality or injury from collisions with vehicles and stress from noise and other human disturbance, as well as water, air, and climate pollution.

- Tocala, LLC Seismic Survey (Passarella 2013 entire): This proposed oil exploration encompasses 103,000 acres on state- and private- owned lands in Hendry and Collier Counties and would create over 8,000 shot holes to generate seismic signals to map oil and gas beneath the surface using "pentolite" explosives. Located just north of the Big Cypress National Preserve and the Florida Panther National Wildlife Refuge, the proposed oil exploration also includes over 2,000 acres of the Dinner Island Wildlife Management Area. This entire proposed seismic survey area consists of is extremely important Florida panther habitat, including primary habitat. The impacts will be severe and similar to those that have occurred as a result of the seismic survey taking place in Big Cypress National Preserve, but could cause even greater harm due to the use of explosives. Oil and gas development and increased habitat loss and human disturbance are expected to follow in the event oil is discovered.

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[410] *See* Quest Ecology, *Preliminary Evaluation of Potential Effects of Seismic Survey for Oil and Gas In and Near the Big Cypress National Preserve on the Florida Panther* (October 2018), *available at: https://www.nrdc.org/sites/default/files/preliminary-evaluation-of-potential-effects-of-seismic-surveying-for-oil-and-gas-on-the-endangered-florida-panther_2018-10-16.pdf; see also* Quest Ecology, *Seismic Survey Inspection Report Big Cypress National Preserve* (May 2018), *available at:* https://assets.nrdc.org/sites/default/files/seismic-survey-inspection-big-cypress-20180531.pdf?ga=2.64474735.1368414805.1534966676-1336211018.1533580820

[411] *Id.*

- Corkscrew Crossing: Proposed development in Lee County just south of Wildblue development. The site is entirely Primary Zone panther habitat, and if developed would result in nearly 200 acres being lost (including 166 acres of wetlands within a regional flowway). This area is a wildlife corridor and would facilitate Florida panthers to a planned underpass at Corkscrew Road that is considered minimization and mitigation measures for constructed road projects. As proposed, the development would destroy the functionality of this existing corridor and increase the likelihood of wildlife-human interactions.

- The HCP also expressly does not include in its project area (despite being in the project area) the Hogan Island Quarry and the Immokalee Sand Mine. The Hogan Island Quarry is a 1,000 acre planned sand and limestone mine and Immokalee Sand Mine is an approximately 900 acre site that would be converted to a sand mine in Collier County off of State Road 82. Development of this parcel would sever a Florida panther Least Cost Pathway (LCP) that shows likely routes of this species as it moves across the landscape. A proposed "wildlife corridor" on site is very narrow, only about 600 feet wide, which is far narrower than biologists believe would be functional.

- Argo Manatee (residential development), Collier County: A residential development will impact about 75 acres of land adjacent to the Primary Zone and where numerous roadkills have occurred on east US41

- Hacienda Lakes (residential development), Collier County: A residential development adjacent to the Picayune Strand State Forest which contained about 800 acres of Primary Zone habitat.

- Immokalee Road South (residential development), Collier County: A residential development that will impact 550 acres is nearby Corkscrew and a regional wildlife corridor.

- Pepperland (residential development) Lee County: A 637.5 acre development along Lee County's Corkcrew Road and within the Lee County Density Reduction/Groundwater Resource (DR/GR) area. The project is located primarily within Secondary Zone habitat with telemetry points from radio-collared panthers documented nearby.

- Verdana (residential development) Lee County: A 1,460 acre development along Lee County's Corkcrew Road and within the DR/GR. It is composed of Primary Zone and Secondary Zone panther habitat, some of which is Frakes Adult Breeding Habitat.

- Timbercreek (residential development) Lee County: A development of 695 acres of primary and secondary panther habitat on the southwest corner of SR 82 and Daniels Rd, also within the DR/GR.

- Troyer Brothers (mine) Lee County: A proposed limerock mine along Corkscrew Road and within the DR/GR. Of the 907 acres proposed for mining, 841 acres (93%) is Primary

panther habitat and 66 acres (7%) is Secondary panther habitat. When looking at the Frakes et al., 828 acres (91%) of the site is considered Adult Breeding Habitat.

- Old Corkscrew Plantation (mine), Lee County: A proposed limerock mine that would result in 1,837 acres destroyed. The land at issue is composed of Primary Zone and Secondary Zone panther habitat and is heavily utilized by panthers as documented through telemetry data. It is within the DR/GR.

- FFD/6Ls mine (mine) Lee County: A proposed limerock mine would destroy 2,585 acres of panther habitat for mining pits adjacent to a major flowway. It is within the DR/GR area.

- Lost Grove Mine (mine) Collier County: A proposed limerock mine adjacent to the Corkscrew Regional Ecosystem Watershed, would impact over 1,300 acres of panther habitat, including Adult Breeding Habitat.

- The Keri Road Sand Mine (mine), Hendry County: A proposed mine at over 850 acres of panther habitat directly adjacent to the Okaloacoochee Slough State Forest and Wildlife Management Area, a major panther corridor as documented by Least Cost Pathways and numerous road mortalities.

- In 2010, the Army Corps of Engineers had determined that mining projects in the DR/GR and adjacent lands may have a significant impact on the human environment and explored the need for an Environmental Impact Statement under the National Environmental Policy Act (NEPA) given its proximity to ecologically critical areas and Florida panther habitat. The Corps also determined that a separate Environmental Impact Statement was appropriate for similar reasons in the North Belle Meade area of Collier County when the East Naples Mine (810 acres of panther habitat impacted) and Section 20 Mines (567 acres of Primary Zone lost) were proposed.

- Even the most remote rural lands in Hendry County are also threatened with additional large scale residential development and mining. This includes the Southwest Hendry (King's Ranch) Sector Plan was approved in 2014 by Hendry County. It would allow 23,600 acres of urban development on the other side of the Collier-Hendry line. The Rodina Sector Plan was approved in 2012 by Hendry County. It provided local authorization of 10,089 acres of development north of the Southwest Hendry Sector Plan.

- Hydrologic restoration of the Lone Ranger property (a.k.a. American Prime) in Glades County would put more water on this main corridor through the Dispersal Zone to lands north of the Caloosahatchee River, which may restrict upland portions of the property to a mere 150 foot wide swath.

- Local roads: A number of local road widening projects also threaten to impact Florida panthers: including widening of Corkscrew Road (which runs through the middle of Lee County's most environmentally sensitive lands), an extension of Randall Blvd. in Collier County (portions of this study area are considered to significantly fragment important

Florida panther habitat and corridors), and an extension into the North Belle Meade area of Collier County called the Wilson Benfield Extension. FWC has begun to review the Wilson Benfield Extension and determined that this road would have adverse impacts and would be inconsistent with species protection strategies.

- I-75 Interchange: There continues to be a push for another I-75 Interchange off of Alligator Alley, even though the wildlife agencies have expressed great concerns for the proposal.

Many of these projects and areas are depicted on Attachments J and K. The Service failed to adequately consider or analyze the cumulative effects of the foregoing present and reasonably foreseeable development projects, along with all past land use projects, in violation of NEPA.[412]

2. Climate Change and Sea Level Rise

The Service failed to analyze the impacts of climate change on the HCP and the species affected by the proposed development.[413]

The DEIS incorrectly concludes that "habitats are not expected to change" within the ITP timeframe due to sea level rise because the Service alleges that the proposed project area is too far inland to be inundated.[414] The Service also fails to consider the increased habitat demands of these inland areas as more coastal areas outside the HCP area are inundated with water.

Coastal species face significant risks from coastal squeeze that occurs when habitat is pressed between rising sea levels and coastal development that prevents landward movement (Scavia 2002 at 17-18, Fitzgerald 2008 at 601-634, Defeo 2009 at 6-7, LeDee 2010 entire, Menon 2010 entire, Noss 2011 entire). Human responses to sea-level rise including coastal armoring and landward migration pose significant risks to the ability of species threatened by sea-level rise to move landward, if other suitable habitats were even available (Defeo 2009 at 1-9). Projected human population growth and development in Florida may thus threaten the species with coastal squeeze (Zwick 2006 entire).

The Service failed to consider the loss of habitat sea-level rise and climate change will cause and the pressure that will place on human and non-human populations and habitat, and how that will be affected by the proposed project in violation of NEPA.

VII. Conclusion

The Applicants' proposed HCP has the potential to impact eight federally-protected

[412] 40 C.F.R. § 1508.7.
[413] *See, e.g., Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1217 (9th Cir. 2008) ("The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct."); *Sierra Club v. FERC*, 867 F.3d 1357, 1371 (D.C. Cir. 2017) (NEPA review must consider the direct and indirect effects of greenhouse gas emissions of the alternatives).
[414] DEIS at 27.

species, three candidate species, and eight state-protected species in a variety of ways: it will further fragment, degrade, and destroy important habitat for these species making it difficult for each of them to shelter, feed, and reproduce; it may disrupt the slow and fragile recovery of the species—such as the critically endangered Florida panther; it may increase the mortality of these species as the result of vehicular collisions; it may increase the tension between these species and the area's human population—such as with the northern crested caracara, eastern indigo snake, and Florida panther; and it could lead to other unforeseen and unexpected impacts to species we have such little information about—such as the Florida bonneted bat. For these reasons and many others stated above, we request that you do not authorize the take of any of these species as proposed in the HCP.

Sincerely,

/s/ Jaclyn Lopez
Jaclyn Lopez
Florida Director
Center for Biological Diversity
P.O. Box 2155
St. Petersburg, Florida 33731
(727)490-9190
jlopez@biologicaldiversity.org

/s/ 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

/s/ Eric E. Huber
Eric E. Huber
Managing Attorney
Sierra Club
Environmental Law Program
1650 38th St. Ste. 102W
Boulder, CO 80301
(303) 449-5595 ext. 101
eric.huber@sierraclub.org

/s/ Alison Kelly
Alison Kelly
Senior Attorney, Lands
Nature Program
Natural Resources Defense Council
1152 15th Street NW, Suite 300
Washington, DC 20005
T 202.717.8297
akelly@nrdc.org

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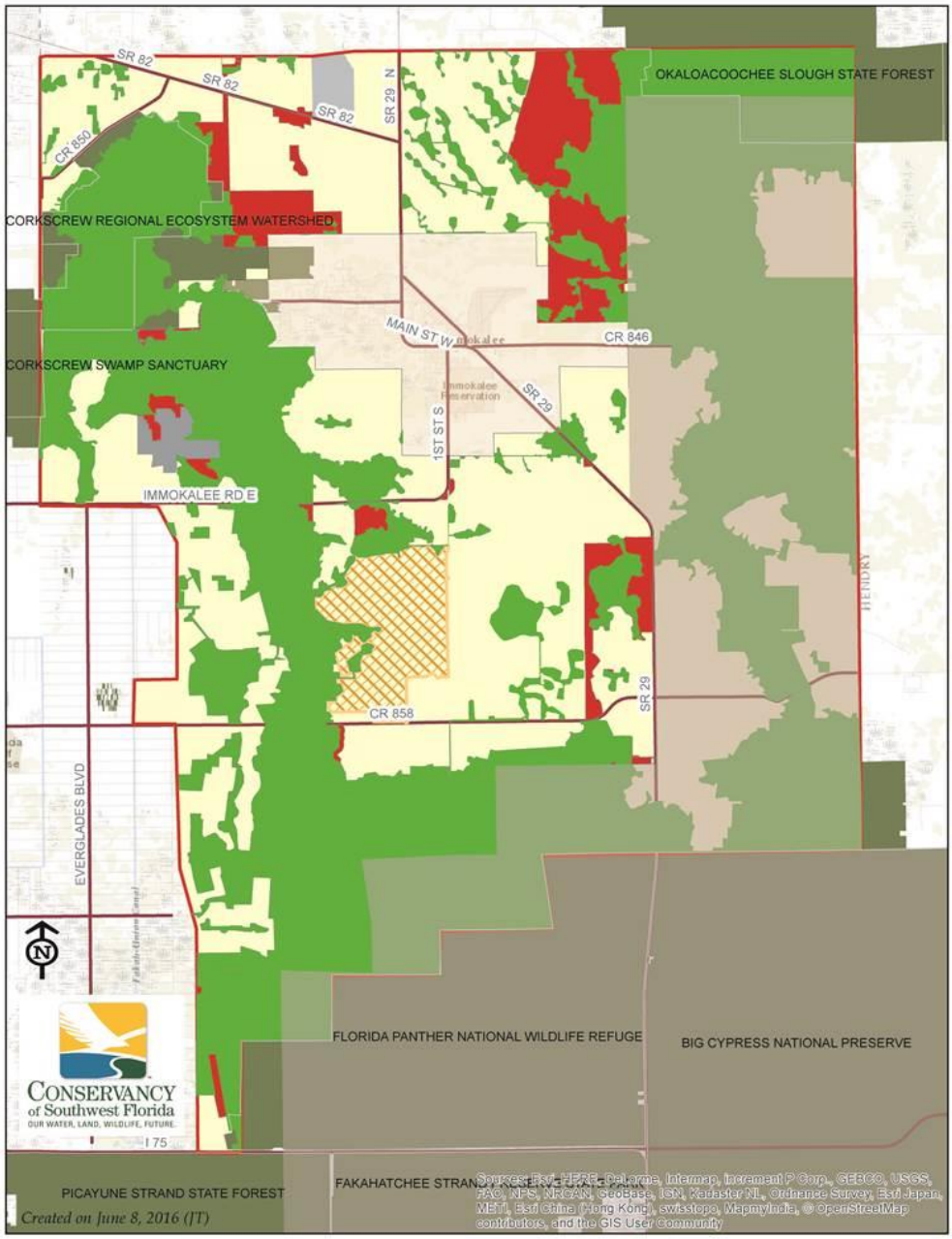
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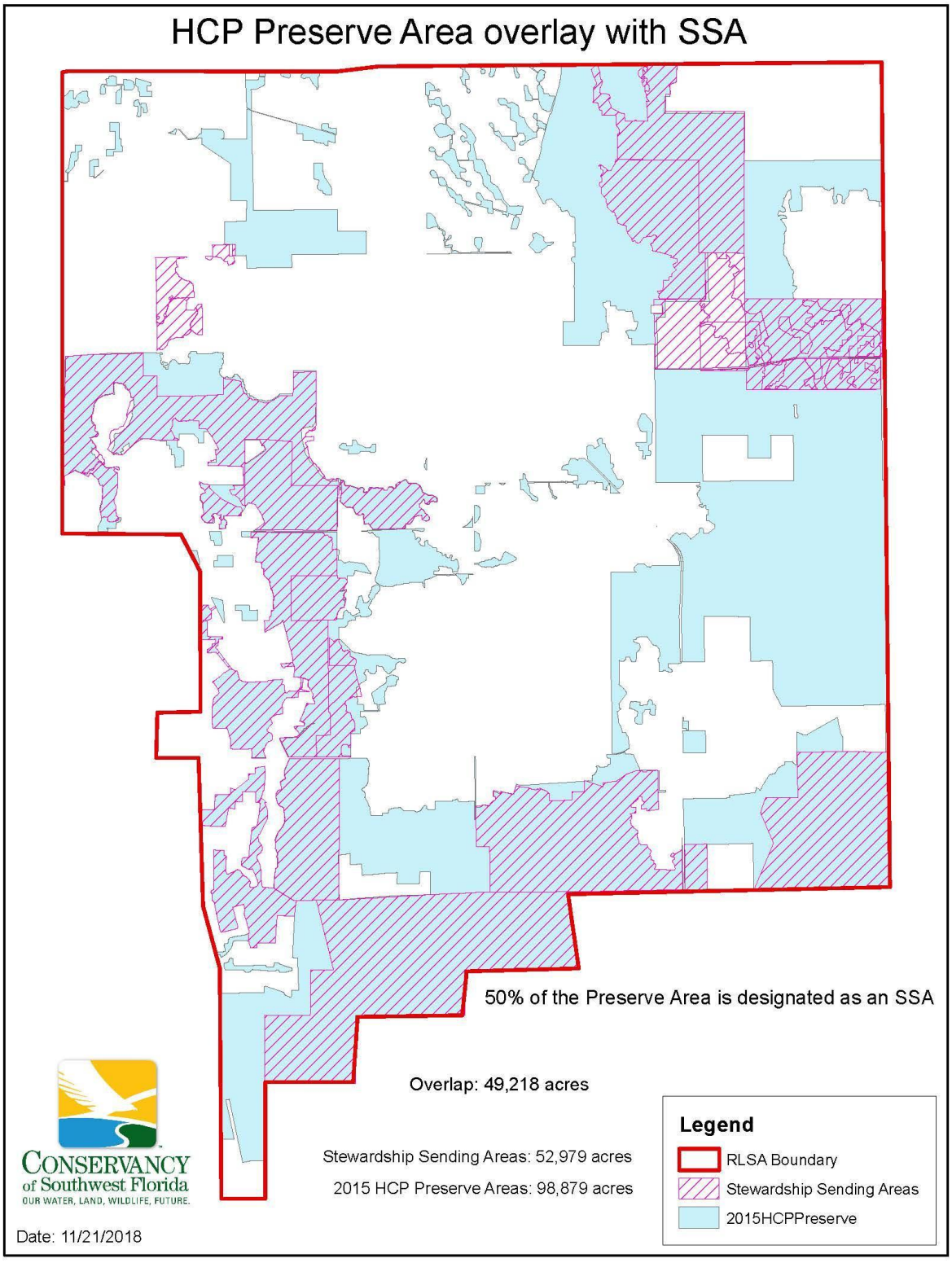
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Attachment A[415]

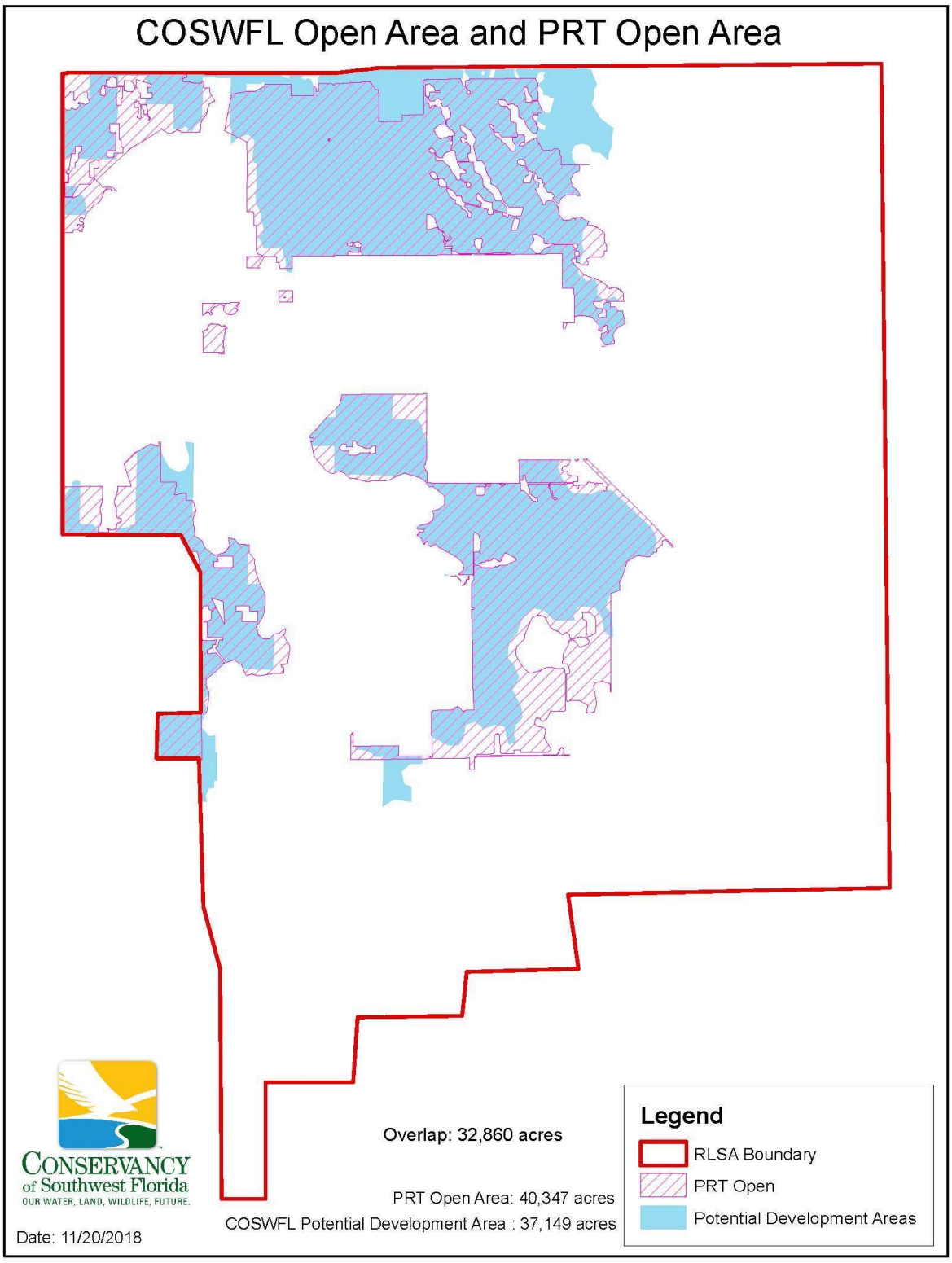


[415] Areas in red depict the lands outside of the RLSA program's FSA, HSA, WRAs(in green) and ACSC (in gray).
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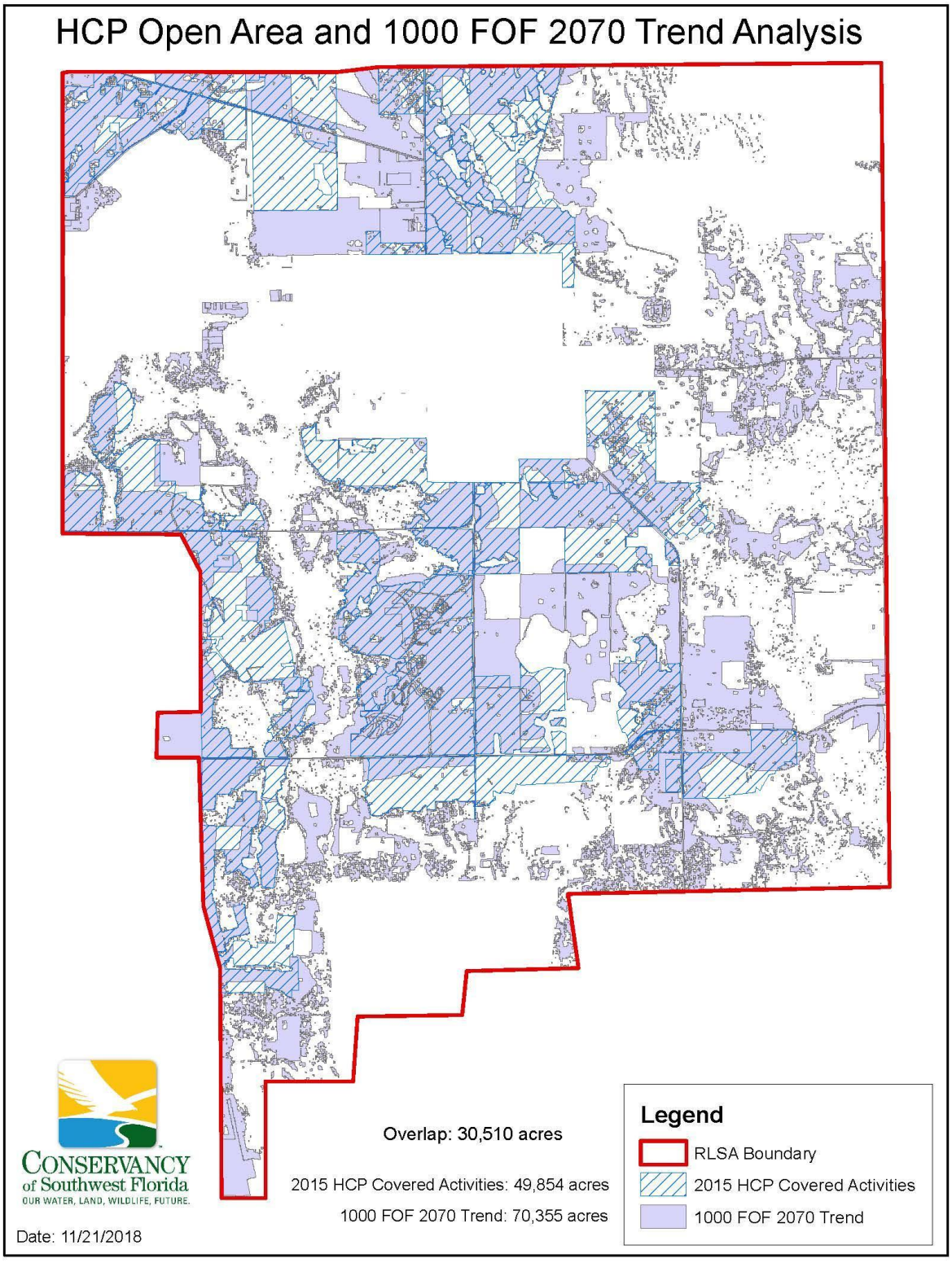
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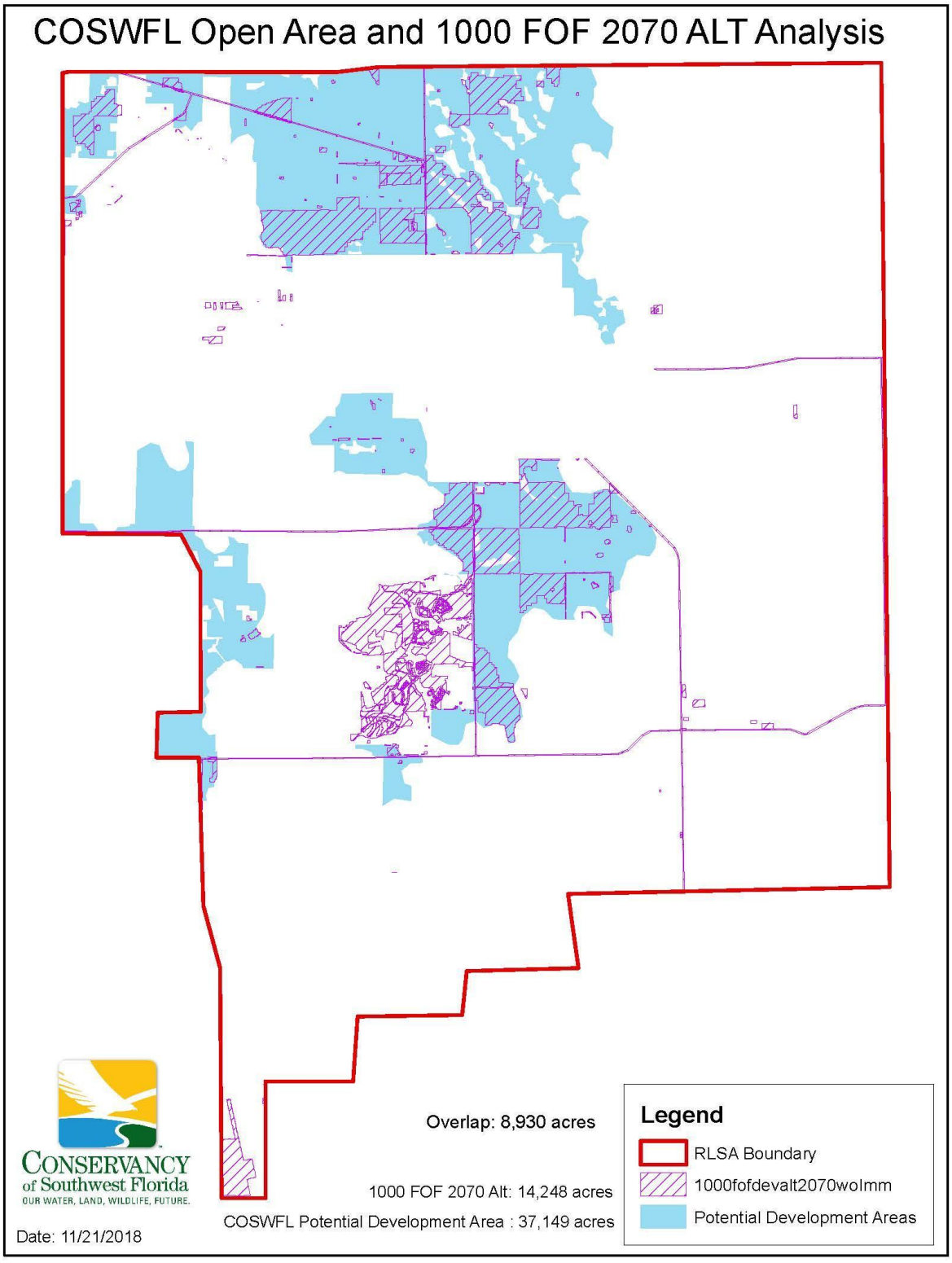
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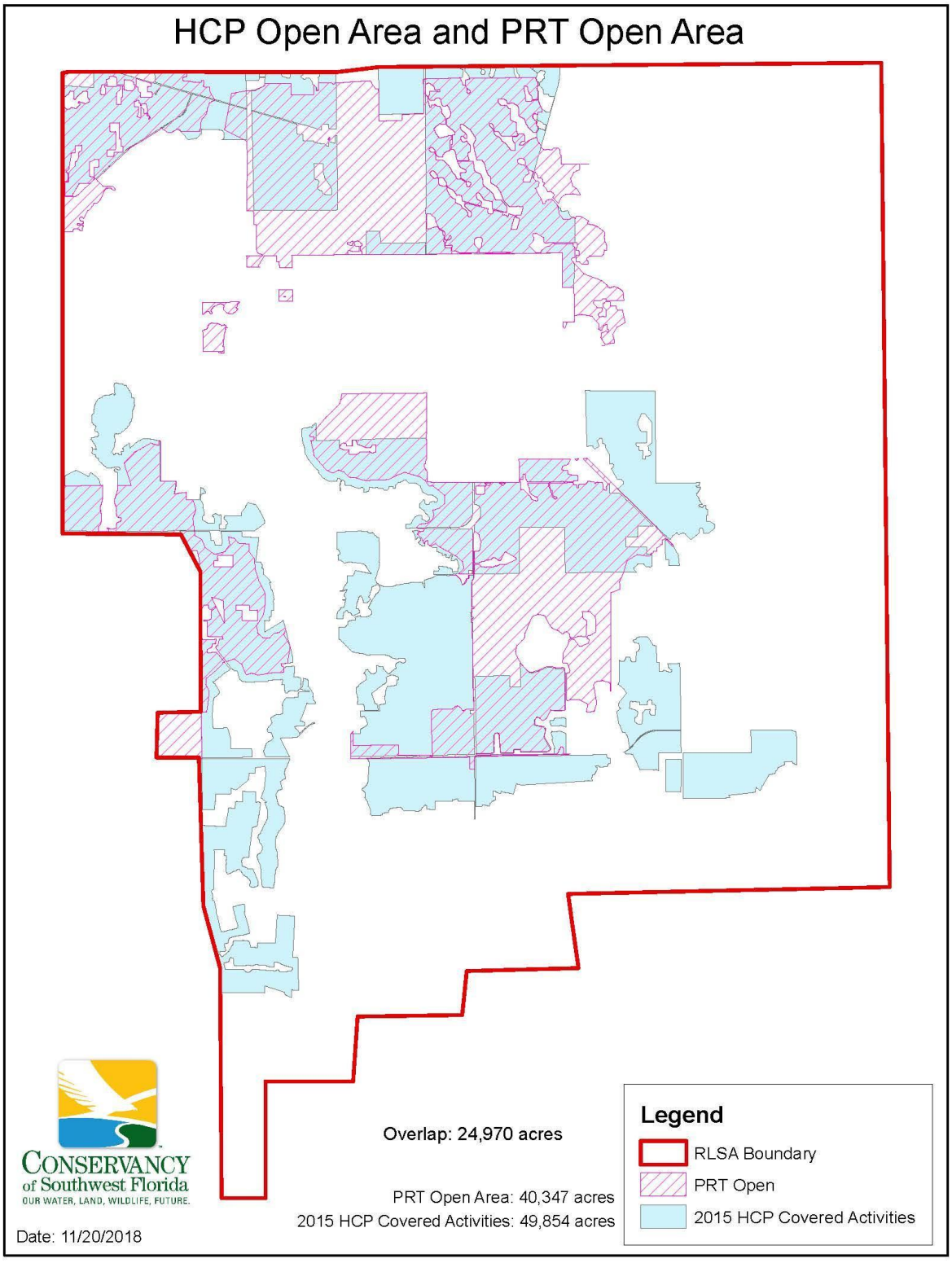
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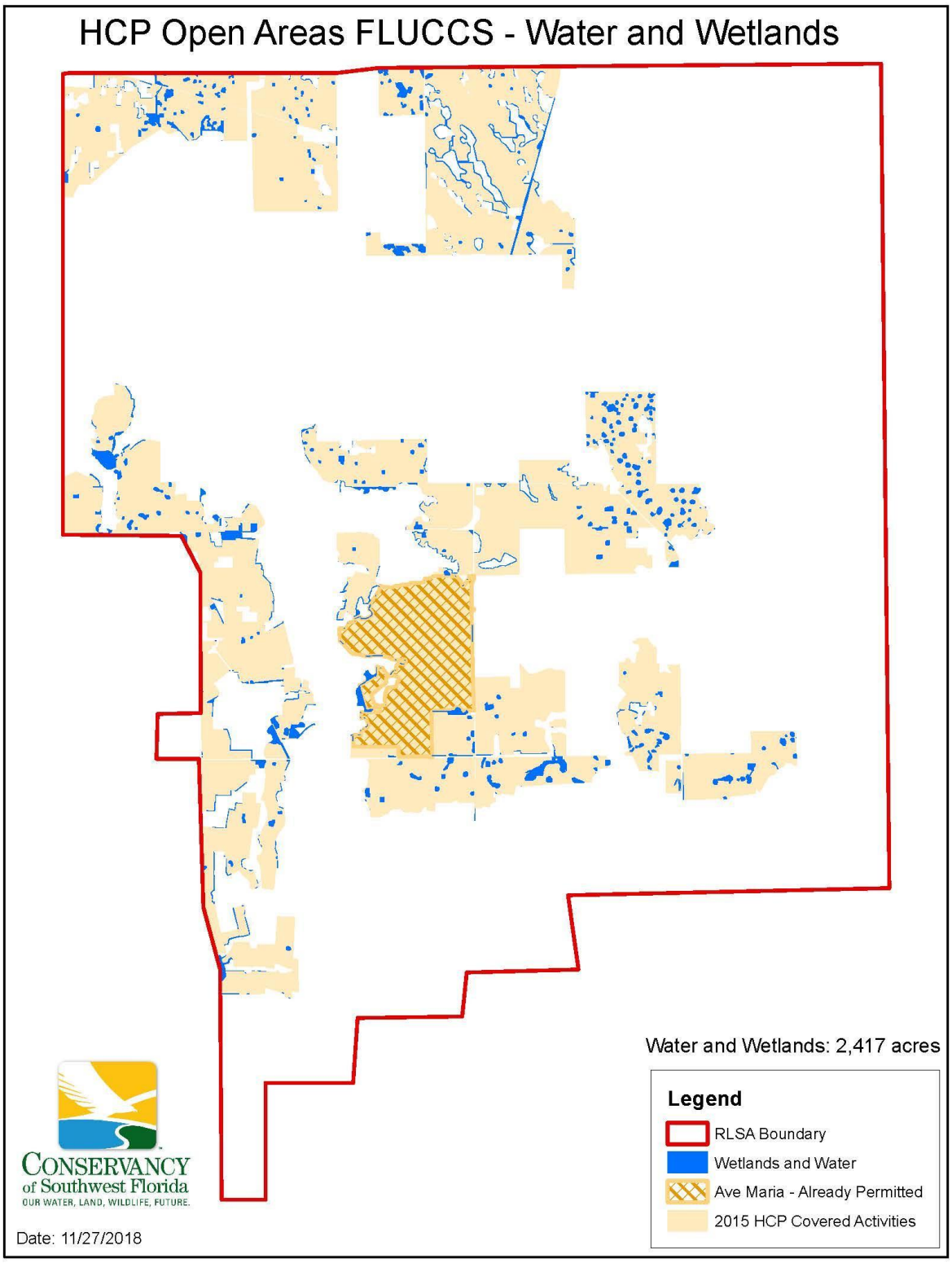
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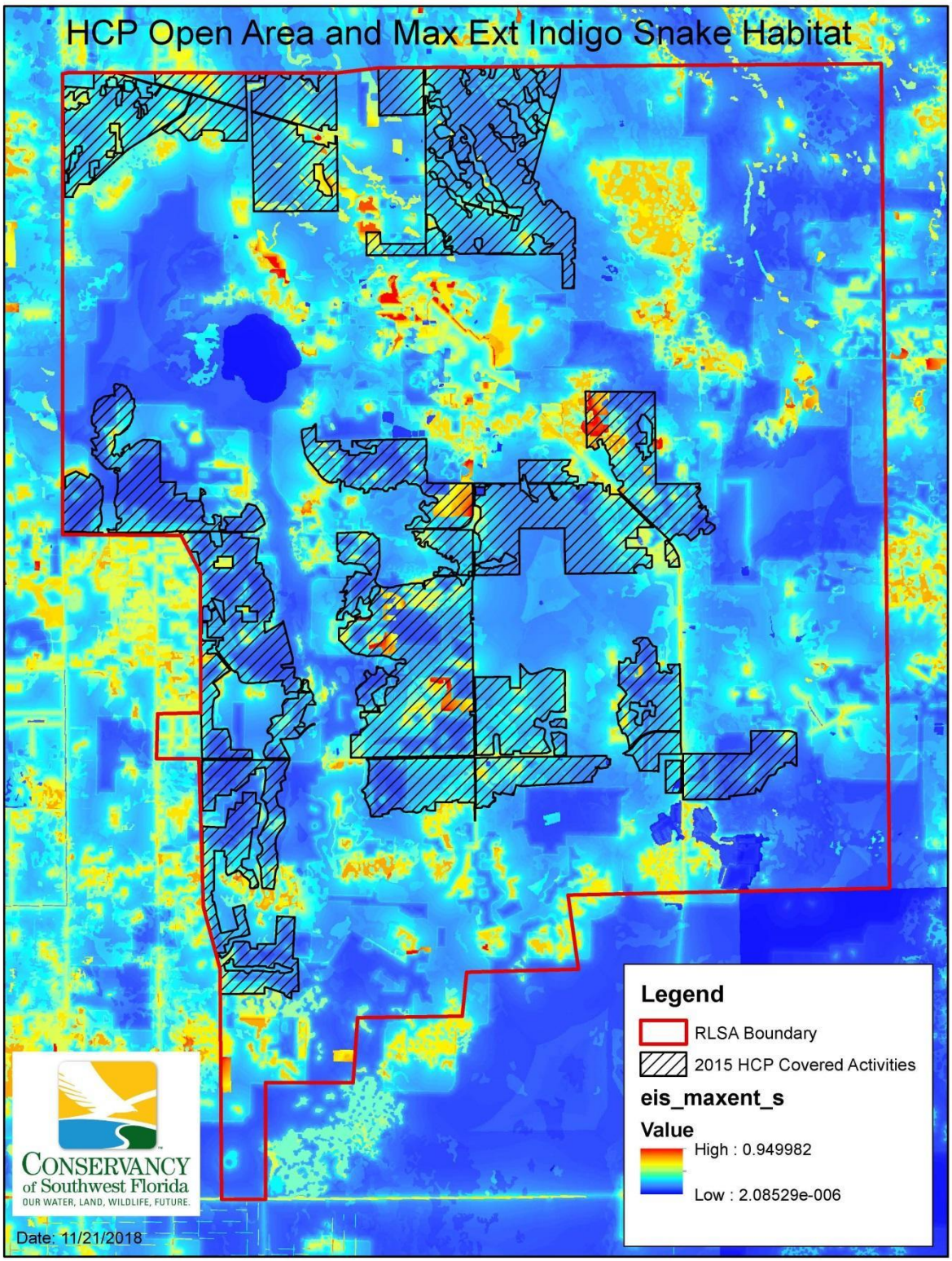
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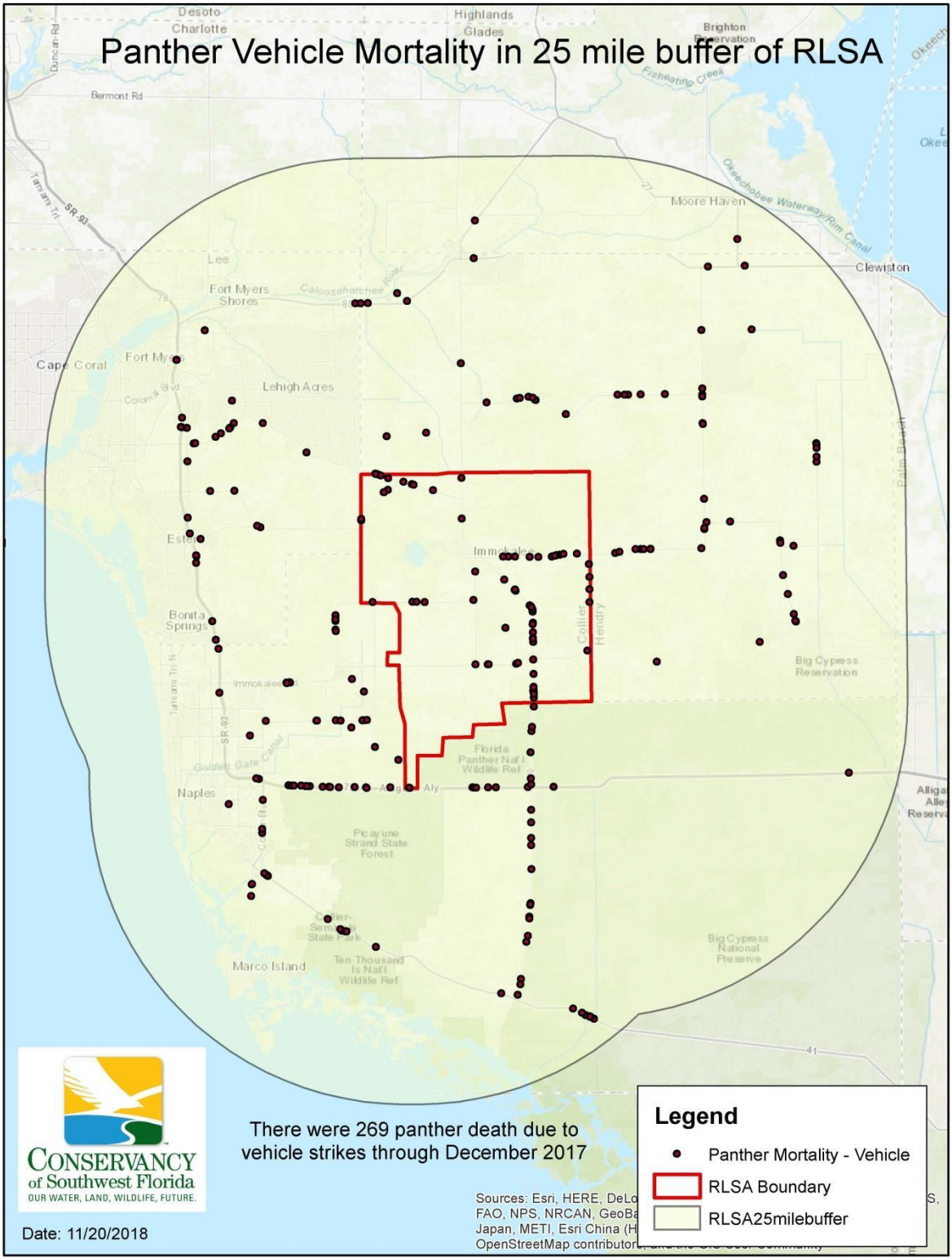
Attachment G



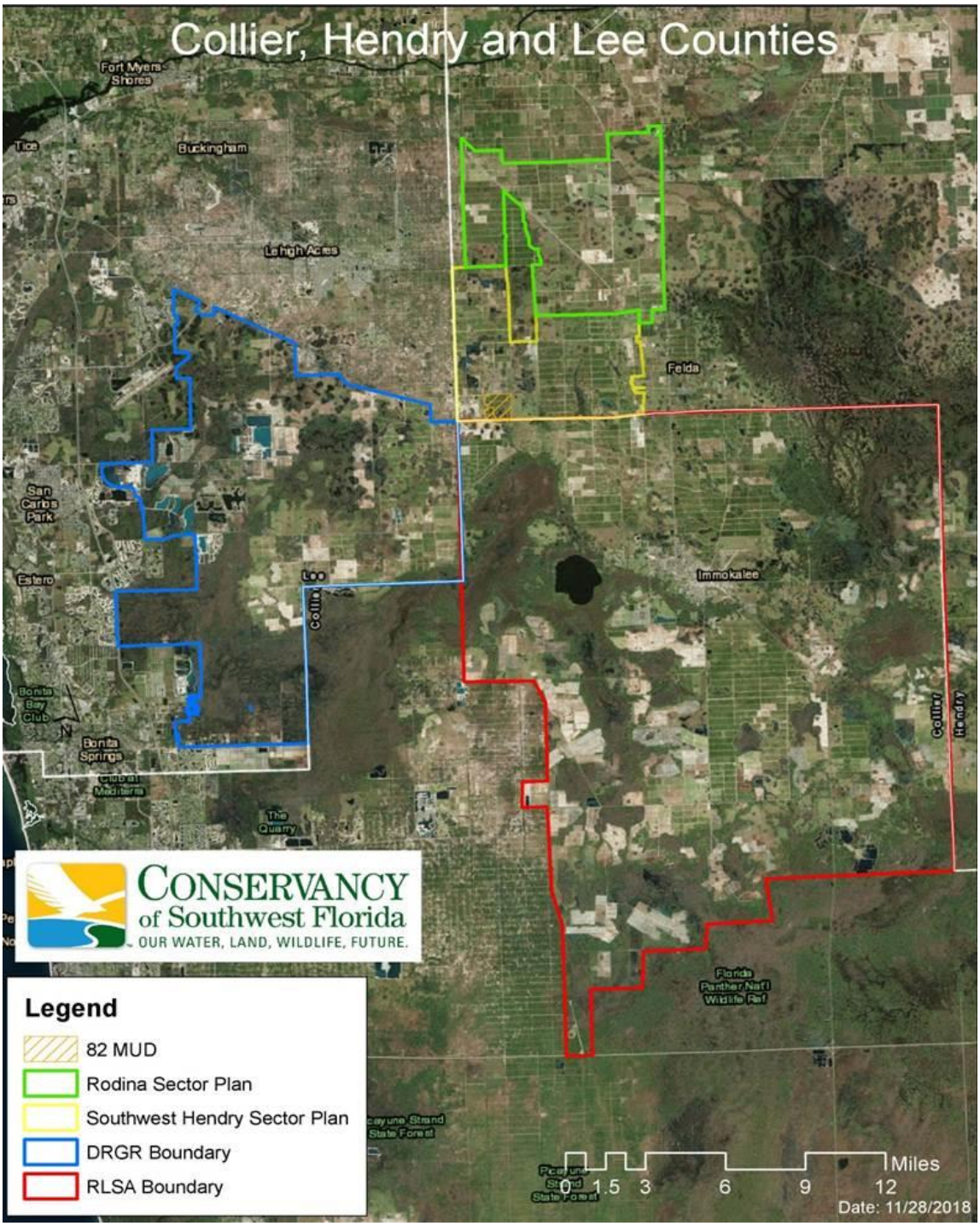
Attachment H



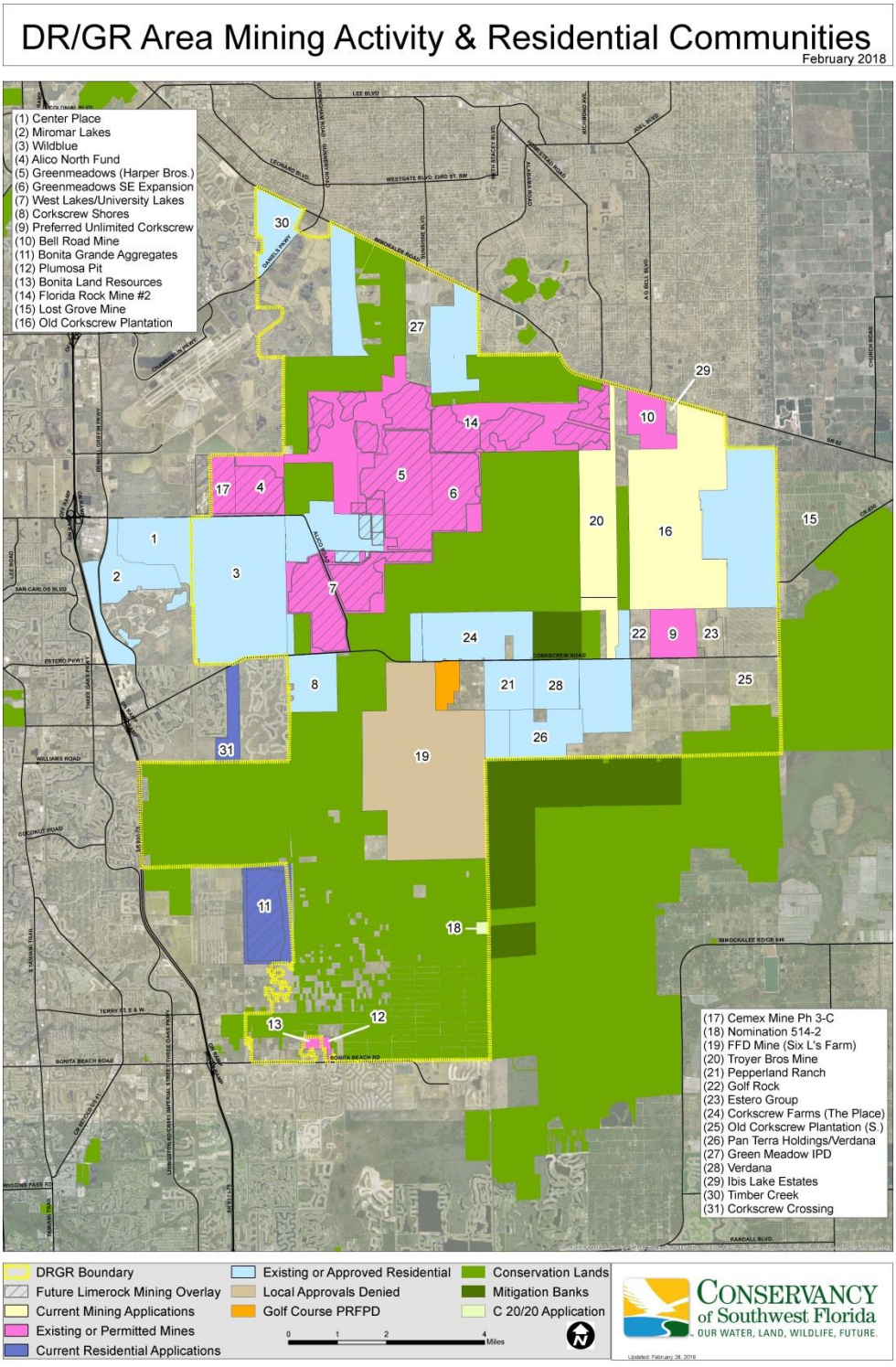
Attachment I



Attachment J



Attachment K



RE: Docket No. FWS–R4–ES–2018–0079;
Eastern Collier Property Owners, LLC,
Multi-Species Habitat Conservation
Plan and Draft Environmental Impact
Statement, Collier County, Florida

December 3, 2018

Gentlemen and Ladies:

Please find attached my general and specific comments regarding the U.S. Fish and Wildlife Service's (FWS) notice of availability and request for public comments on the Eastern Collier Property Owners, LLC, Multi-Species Habitat Conservation Plan (HCP) and Draft Environmental Impact Statement (dEIS).

I have a B.S. and M.S. in Biology and have worked as a biologist for my entire career. I was employed with the FWS for more than 25 years, before voluntarily separating in September. For the bulk of that time (18 years), I worked in the Endangered Species program at the South Florida Ecological Services Office (SFESO), where I was responsible for the listing and recovery of highly imperiled species.

I have extensive knowledge and experience with Florida panthers with regard to science, recovery planning, and regulatory issues based upon more than 20 years of living and working in south Florida. I lived in Naples and worked at the Florida Panther National Wildlife Refuge (FPNWR) as a Partners for Fish and Wildlife biologist for the South Florida Ecosystem Team (1998-2000), working with private landowners on voluntary habitat restoration projects. I worked for the SFESO in Vero Beach in the Trust Resources and Endangered Species (Listing and Recovery) programs (2000-2018).

While at the SFESO, as it relates to panthers, I was heavily involved in the following: compiled the Administrative Record for the panther lawsuit brought on by five environmental groups against the FWS, U.S. Army Corps of Engineers, and the Federal Highway Administration over alleged violations of the Endangered Species Act (ESA), the Clean Water Act, the National Environmental Policy Act (NEPA), and the Administrative Procedures Act (APA) in 26 permitted projects (2000); served as interim Panther Recovery Coordinator (lead recovery biologist), responsible for conservation and recovery of the species (2002-2004); drafted the FWS' initial panther regulatory methodology with colleagues (2003-2004) and subsequently encouraged revision of this methodology (2005-2006), when it was no longer consistent with the best available panther science (i.e., Kautz *et al.* 2006); drafted the FWS response to the Data Quality Act of 2000 challenge of panther science (i.e., information quality complaint) submitted by Andrew C. Eller, Jr. and Public Employees for Environmental Responsibility (2004); coordinated with the Multi-species Recovery Implementation Team (MERIT) Panther Subteam on panther science and recovery efforts; served on the Florida Panther Recovery Team and provided major input to the current Panther Recovery Plan (2008); served on interagency teams to prepare Panther Response Plans and the Environmental Assessment to improve agency responses in issues arising from panther-human interactions; reviewed and prepared numerous draft biological opinions (BOs), attempting to improve FWS' regulatory decisions to better estimate extent of take, use sound science, and abide by the ESA.

As a Listing biologist (2002-2018), I was responsible for determining if a species warranted protection under section 4 of the ESA and leading recovery efforts. Among other duties, I prepared the FWS' listing package for the Florida bonneted bat (2012-2013) and evaluated habitat for this endangered species, including draft proposed critical habitat documents. I was the FWS' Recovery lead for the Florida bonneted bat, prior to my departure from the agency. As a Recovery biologist, I worked on grants, conducted species surveys, led recovery efforts, and completed several 5-year species status reviews.

I also have experience and training for Habitat Conservation Plans (HCPs). From 2000-2002, my job entailed negotiations and evaluations of HCPs in south Florida. Having worked for the FWS for more than 25 years, I have extensive training in Sections 4, 7, and 10 of the ESA, NEPA, Fish and Wildlife Coordination Act, APA, and numerous Department of Interior (DOI) and FWS policies, regulations, guidelines, and programs.

In the interest of full disclosure, when employed at the SFESO, I participated in several meetings and discussions with the Applicants' representatives, FWS contractors, and FWS biologists and managers about this project and possible alternatives. This primarily included attending either in person or via telephone conference or webinar: the scoping meeting (2016), meetings with consultants to discuss the project in (2017-2018), and meetings with contractors hired to prepare the draft EIS (2017-2018). I was asked to review and provide comments on earlier versions of the draft HCP and draft EIS, under extremely short deadlines. I provided extensive, detailed, verbal and written input relating to listed and imperiled species and their habitats and expressed various concerns with regard to the proposed project, its potential impacts, and information contained in the draft HCP, during its development and earlier in the review process. I also expressed concerns (verbally or in writing) over various aspects of the project and its handling to the following FWS and DOI staff: biologists (e.g., lead biologists for the project, Panther Recovery Coordinator, and others); my immediate supervisor; the regulatory supervisor in charge of the project; the SFESO Field Supervisor; the Florida State Supervisor; the Refuge Manager and staff of FPNWR; staff in the Southeast Regional Office (the Section 10 Coordinator; the Section 7 Coordinator; the Chief of Environmental Review); and a DOI solicitor.

The comments here and attached are entirely my own. I appreciate the opportunity to provide additional comments during this open public comment period. However, I am deeply disappointed to see that the significant inadequacies (e.g., not using best available science, inadequate and incomplete analyses, limited alternatives under NEPA) and severe flaws of these documents (i.e., not meeting issuance criteria under section 10(a)(2)(B) of the ESA; jeopardy under section 7(a)(2) of the ESA) and other procedural issues (i.e., inadequate notification process, possible APA violations) remain.

The handling of this project is disturbing on multiple levels. It is disturbing that no baseline surveys were conducted for listed and imperiled species. It is disturbing that take of listed species is not fully accounted for and that sound science was not used. It is disconcerting that the FWS did not promptly notify or invite panther (and other) species experts, considering this enormous project, which will have direct consequences to panther survival and recovery and impact so many other species. After years of recovery planning and after the most recent 5-year status review notice for the panther, there are elaborate contact grids with scientists from academia, agencies, and industry, who could have been given the chance to weigh in on the project with regard to the panther and other listed species. These scientists along with hydrologists, water and air quality specialists, landscape planners, cultural resource specialists, archaeologists, transportation planners, traffic analysts, land managers, prescribed fire specialists, economists, and other experts could have been directly notified of the project and invited to comment. This could have aided the development of alternatives and ensured that the FWS was using the best available science and properly analyzing all effects to listed species and the environment, pursuant to its responsibilities under the ESA and NEPA. The lack of notice and overly short period for comment is remarkable and alarming for a long-term project of such scale, magnitude, and consequence.

Sincerely,

Paula J. Halupa

halupap@comcast.net

COMMENTS ON EASTERN COLLIER PROPERTY OWNERS, LLC, MULTI-SPECIES HABITAT CONSERVATION PLAN AND DRAFT ENVIRONMENTAL IMPACT STATEMENT, COLLIER COUNTY, FLORIDA

GENERAL COMMENTS on the HCP

Under section 10(a)(2)(B) of the ESA, the permit application and HCP need to meet the issuance criteria before ITPs can be issued.

The issuance criteria include:

> *(i) the taking will be incidental;*
> *(ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking:*
> *(iii) the applicant will ensure that adequate funding for the plan will be provided;*
> *(iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and*
> *(v) the measures, if any, other that the Secretary may require required as being necessary or appropriate for the purposes of the plan, will be met.*

After careful review of the HCP and associated documents, it is clear that the issuance criteria have not been met. In fact, this HCP falls well short in at least three of the criteria.

ISSUANCE CRITERIA THAT HAVE NOT BEEN MET

1. THE TAKING WILL NOT APPRECIABLY REDUCE THE LIKELIHOOD OF THE SURVIVAL AND RECOVERY OF THE SPECIES IN THE WILD.

Habitat Loss and Reduction of Wildlife Corridors (TAKE NOT FULLY ACCOUNTED FOR)

The proposed development will undoubtedly appreciably reduce the likelihood of survival and recovery of the Florida panther in the wild. The entire Covered Activities area spanning 45,000 acres of development is projected to occur in the most important areas for the panther (i.e., the Primary and / or Secondary Zones as defined in the FWS' 2008 Florida Panther Recovery Plan). The FWS' recovery plan defines the Primary Zone as "lands essential to the long-term viability and persistence of the panther in the wild" (FWS 2008). The Secondary Zone is defined as "lands contiguous with the Primary Zone, currently used by few panthers, but which could accommodate expansion of the panther population south of the Caloosahatchee River" (FWS 2008). This project will result in the loss or destruction of a *minimum* of 45,000 acres of "lands essential to the long-term viability and persistence" and lands that "could accommodate expansion". Clearly, this project will appreciably and considerably reduce the likelihood of survival and recovery on the basis of purely habitat loss alone.

The proposed development will also result in substantial habitat fragmentation and narrowing of existing wildlife corridors. Areas labeled as "Preserve" in the northern, western, and central portions of the project site (i.e., see Figure 2.1 of HCP) are islands of no meaningful use to the panther; these areas constitute additional losses and should be counted as such (i.e., habitat losses and impacts).

For a quantified analysis of the impacts to panther habitat and corridors from this project, please see Frakes (2018). In short, Frakes (2018) uses a peer-reviewed landscape model, which was 87.5% accurate in predicting presence or absence of panthers (using radio-telemetry data) (Frakes *et al.* 2015) and later found to be >97% accurate when validated against GPS-tagged panthers (Frakes 2018), to analyze

quantitatively impacts to panther habitat and corridors. The model predicted "substantial losses of adult panther (breeding) habitat in terms of both habitat quantity (areal extent) and quality" (Frakes 2018). Further, he found that "*nearly all of the existing panther habitat in the Covered Activities area will be destroyed by development under the proposed ECMSHCP*" (Frakes 2018).

Further, the proposed project substantially compromises two vital wildlife corridors, making panther movement and access to the north even more difficult. See Figure 3 showing Least Cost Pathways in Kautz *et al*. 2006. Frakes (2018) found: "*The model predicted that the northward extension of habitat on the western side of the RLSA (through Camp Keais Strand towards the Corkscrew Swamp) will be significantly narrowed and shortened. The fairly strong existing habitat connection on the eastern side of the RLSA (through Summerlin Swamp towards the Okaloacoochee Slough) will be narrowed and completely severed in some places…*". Further, Frakes (2018) states: "*It is likely that the degraded/reduced habitat along these pathways will adversely impact north-south panther movements. In addition, new roads, especially those running east and west, will add to the fragmentation and loss of connectivity*." As a result of the project, the southern or eastern corridor is reduced to roughly 1,700 feet wide at its narrowest point (Frakes, pers. comm. 2018), and it will most likely be unusable to panthers (see "Travel and Dispersal Corridors" pp. 30-31 of the Panther Recovery Plan, FWS 2008). These wildlife corridors are absolutely paramount to continued survival and recovery.

Overall, the proposed project will result in substantial habitat loss, fragmentation, and reduction of vital habitat corridors with devastating impacts to the panther. These impacts are not consistent with survival and recovery according to the FWS' Recovery Plan (FWS 2008) and also published, peer-reviewed, and accepted scientific literature (Kautz *et al.* 2006, Frakes *et al.* 2015). For example, these losses in habitat spatial extent, configuration, and linkages are directly in conflict with two of the six major actions in the recovery plan, namely: "*1. Maintain, restore, and expand the panther population and its habitat in south Florida*" and "*2. Expand the breeding portion of the population in south Florida to areas north of the Caloosahatchee River*" (FWS 2008).

Further, the substantial impacts to the Florida panther flies in the face of the conservation recommendations found in the best available science. Work of the Panther Subteam of MERIT and recommendations of Kautz *et al*. (2006) stated: "*Assessments of potential impacts of developments should strive to achieve no net loss of landscape function or carrying capacity for panthers within the Primary Zone or throughout the present range of the Florida panther*." Clearly, this enormous development project results in net loss of function and carrying capacity as most of the development falls within the Primary Zone, and all of the development occurs within the limited range of the species. More recently, the Frakes *et al.* (2015) model suggested that less adult panther habitat exists than previously thought. Using a model that was later found to be >97% accurate (Frakes 2018), the authors recommended that "*all remaining breeding habitat in south Florida should be maintained, and the current panther range should be expanded into south-central Florida*" (Frakes *et al.* 2015). Clearly, the project falls well short of these recommendations.

The huge projected losses in habitat will also impact the home ranges and movements of a large number of panthers. In his quantitative analysis that quantified impacts from this project, Frakes (2018) found that during the 10-year period from 2004 to 2013, the "Covered Activities Area" contained parts of the home ranges of at least 17 adult panthers. However, the Applicants request ITPs for a whopping 50-year time period. The projected impacts to panthers in terms of survival, reproduction, and viability are considerable. Not all panthers using the area are collared or tagged, and the impacts will surely affect adults, subadults, and survival of offspring. Therefore, the estimate of affecting 17 adult panthers, although significant, should be considered *a conservative estimate*. Adults and subadults will have more difficulty meeting their basic life needs (e.g., finding prey, finding mates, establishing territories, producing and caring for offspring). Based upon estimates by the Florida Fish and Wildlife Conservation

Commission (FWC), the agency has quantified the current panther population size (adults and subadults) to be within the range of 120-230 individuals. Assuming the panther population is the median of this range (175), the proposed project will, *at a minimum*, affect the home ranges of 10% of the population. Considering the size, location, and length of the proposed project and the fact that not all panthers are followed, it is reasonable to assume that impacts to home ranges alone will affect well more than 10% of the total panther population during the life of the project and beyond.

As panthers get squeezed out of more than 45,000 acres of the Primary Zone (i.e., "*lands essential to the long-term viability and persistence of the panther in the wild*") and Secondary Zone, intraspecific aggression will undoubtedly increase. Intraspecific aggression is a significant source of mortality (Jansen *et al.* 2005, Lotz *et al.* 2005). See the Panther Recovery Plan for a complete discussion. Therefore, this proposed project will undeniably contribute to one of the primary sources of panther mortality and negatively affect population viability. The HCP fails to recognize this form of take (harm – mortality and injuries from increased intraspecific aggression). The Applicants do not account for it and make no attempt to minimize or mitigate this take (see below).

By proposing significant development in lands deemed essential to the Florida panther and substantially narrowing important linkages identified as important (by the Panther Recovery Team, Panther Subteam of MERIT, Kautz *et al.* 2006, Frakes *et al*. 2015, Frakes 2018), the Applicants will substantially reduce the likelihood of survival and recovery. Further, by contributing to a primary source of mortality (intraspecific aggression) and impeding movement within and between remaining important habitats, the project will reduce the chances of survival and remove options for expanding the population, which is needed for recovery.

Hundreds of Thousands of New Residents and Vehicles, Miles of Additional High-Speed Roads; More Infrastructure – Expect More Panther Injuries and Mortalities and Disrupted Movements (TAKE NOT ACCOUNTED FOR)

The HCP states that 91,480 dwelling units will accommodate 174,000 residents. There is no justification for why Applicants are estimating less than 2 people per dwelling unit. According to the US Census Bureau information for Collier County, an estimated 372,880 people reside in the county in 2017 and a total of 214,423 housing units exist (https://www.census.gov/quickfacts/colliercountyflorida). According to the census quick facts data, the density per household during 2012-2016 was 2.58 people per household (https://www.census.gov/quickfacts/colliercountyflorida). Why would the Applicants use a figure of 1.90 people per unit instead of the best available data of 2.58 people per unit? If 91,480 dwelling units are proposed in this project, this would result in a minimum of 236,018 new residents, not even taking into account how the new developments, businesses, and roads, will attract more people. Therefore, the "Covered Activities" portion of the HCP can be expected to result in a net increase of 63.3% of the human population in Collier County, using conservative assumptions.

According to the HCP, the residential and commercial development includes the following, "*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.*" (see p. 34 of the HCP). It is not clear how or why other infrastructure and needs (e.g., airports, hospitals, hurricane shelters, evacuation routes, etc.) to accommodate this growth are not included or discussed.

The HCP indicates that mining may also ultimately lead to development. As stated in the HCP (p. 34): "*Earth mines may occur as a prelude to future land uses, such as development, or may occur as an end-use.*" It is entirely unclear how much mining will occur and what proportion of the planned mines will

result in an end-use of development, and how many more dwelling units and residents could be expected from this.

The increase in residents and businesses will most certainly result in more vehicles on the roads, increased traffic, and increased demands for road improvements, including more roads and more high-speed roads. According to available information, 83% of the existing human population in Collier County was at the age capable of driving, and people commuted and average of 24.2 minutes to work (https://www.census.gov/quickfacts/colliercountyflorida). With the expected 63.3% increase in human population in the area (or even the gross underestimate of 46.7%, based upon the Applicants' inaccurate projections that they did not provide), there will be a tremendous increase in number of vehicles on the roads, especially considering the rural landscape and general lack of mass public transportation.

Yet, inexplicably, the Applicants take no responsibility for more vehicles or traffic expected on roads as a result of the project. As stated on page 33 of the HCP: "*For example, the ITPs will not authorize or control incidental take (or any other form of take) resulting from activities of third parties (e.g., actions that are not conducted by or on behalf of the applicants), such as collisions between vehicles and panthers or other Covered Species on roadways external to development projects. Collisions between vehicles and panthers or other Covered Species, 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 of construction and maintenance vehicles on these roads and relatively lower likelihood of Covered Species crossing roads, and therefore take coverage for such collisions on these internal roads is not requested. In addition, the ITPs will not cover potential vehicle collisions with panthers or other Covered Species by third parties on roadways internal to development areas or 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 improvements made pursuant to any current or future Long-Range Transportation Plans (LRTPs) developed by the Collier County Metropolitan Planning Organization (MPO).*" Clearly, the addition of hundreds of thousands of additional vehicles on the roads, which are anticipated directly as a result of this project, will substantially increase panther mortalities, injuries, and kitten abandonment because the entire proposed project occurs in the Primary and Secondary Zones. How can the Applicants not acknowledge their responsibility for the expected increases in this incidental take?

Please see the Recovery Plan for a full discussion of threats to the species. With regard to the threat from vehicle collisions, the FWS plan states: "*Eighty-six panther-vehicle collisions were documented between 1972 and 2005 of which 80(52%) resulted in panther deaths (Lotz et al. 2005). Panther-vehicle collisions were identified as the third most important source of mortality among radiocollared panthers (19%) (Land et al. 2004). Fifty-six percent (48) of panther-vehicle collisions have occurred since 2000 with all but two being fatal to the panther (Lotz et al. 2005). Approximately 53% of documented panther vehicle collisions have occurred within the Primary Zone through 2004 (Swanson et al. 2005). Panther-vehicle collisions are a significant source of mortality and pose an on-going threat. In addition, new and existing roads, expansion of highways, and increases in traffic volume and speed contribute to loss of panther habitat and impede movement within and between high use habitat blocks throughout the landscape (Swanson et al. 2005) (see Factor A). New and expanded highways could to increase the threat of panther mortality and injuries due to collisions if they are not accompanied by adequate fencing and crossings.*" (FWS, pp. 50-51).

By proposing significant development in the heart of panther habitat and narrowing important linkages identified as important (by the Panther Recovery Team, MERIT Panther Subteam, Kautz *et al.* 2006, Frakes *et al*. 2015, Frakes 2018), the Applicants will substantially contribute to a primary source of mortality (i.e., road kills) and further impede movement within and between remaining important habitat,

thereby reducing the likelihood of survival or hopes of expanding the population, which is needed for recovery.

Continued Incompatible Land Practices in the "Preservation Areas" – [Who knew growing tomatoes was good for panthers?] (TAKE NOT ACCOUNTED FOR)

The HCP disingenuously touts "Preservation/Plan-Wide activities and very low density use" and "extensive, contiguous, land preservation" and "preservation of existing panther movement corridors" (see pp. 29-32 of the HCP). As stated above, the islands of "Preserve" in the northern, western, and central portions of the HCP area are surrounded by a sea of buildout in the "Covered Activities Area". These islands should count as habitat losses and impacts for the panther. As stated above, existing vital panther corridors will be substantially comprised and narrowed; the southern or eastern corridor may no longer function for panthers. Clearly, the existing panther movement corridors are not preserved, as Applicants suggest.

There is also no removal of incompatible land uses in any of the "Preservation Areas". As stated in the HCP (see p. 29), the following activities may occur: "*crop cultivation, ranching/livestock operations; forestry and silviculture; recreation; exotic and nuisance species control; and oil and gas exploration and production.*" If accepted, this essentially rewards Applicants twice – for past and future land exploitations. First, landowners would essentially be getting a free pass for previous land conversions (e.g., converting native pine flatwoods and other native habitats (e.g., of value to panthers, red-cockaded woodpeckers, and Florida bonneted bats)) that impacted and resulted in take of listed species without their responsibility of seeking appropriate incidental take coverage. Second, under the HCP, Applicants would theoretically claim credit for setting aside the converted land and continue to use it in historical uses with absolutely no concerted effort to put habitat value back. The Applicants choose to not only not remove incompatible land uses, they offer virtually no concerted effort to either passively or actively restore it to native habitat. Restoring all non-native "Preserve" areas to native vegetation would have much more value to listed and imperiled species. Most reasonable people would not see crop cultivation, livestock operations, silviculture, and mining and gas exploration and production as compatible land uses if the goal is to conserve wildlife.

The HCP states that historical uses and low density uses will be compatible with use of these areas by the "Covered Species". How? Under this severely flawed and insufficient HCP, it is conceivable that semi-natural agricultural land (e.g., pastures) could also be converted to more intensive purposes (e.g., row crops). The following is not clear -- Could pastures be converted to row crops? Could pesticides be used on crops and fields? Could forests be thinned with no regard for cavity dwellers or forest-dependent species? Is hunting allowed and what types, and when, with what limits? How does the disturbance or the reduction in prey from hunting not affect prey availability for the panther?

Preservation areas should not be counted as such if impacts to the panther (and other listed species) are continuing and / or if the area is not restored to native vegetation. Where is the passive or active restoration that is needed to partly replace the function and value lost? This HCP flies in the face of the current Panther Recovery Plan and the latest panther science.

The Recovery Plan explicitly states the primary goal for the "*Existing Population" is to "1. To maintain, restore, and expand the panther population and its habitat in south Florida and expand the breeding portion of the population in south Florida to areas north of the Caloosahatchee River to maximize the probability of the long-term persistence of this metapopulation*". The first primary action is to: "*1.1. Maintain, restore, and expand the panther population and its habitat in south Florida.*" For South Florida Habitat the primary action is to: "*1.1.1. Maintain the ability of the Primary, Secondary, and Dispersal Zones, as identified in Kautz et al. (2006), to contribute to a viable population.*" (see page 101 of FWS

2008). Further with regard to "*Habitat Fragmentation, Connectivity, and Spatial Extent*", the Recovery plan specifies to: "*Maintain spatial extent and arrangement of habitat. Areas currently used by panthers and habitat conditions within the Primary Zone should be maintained. According to Root (2004),* ***"Unless the current condition, amount, and configuration of the currently occupied panther habitat are safeguarded, the long-term viability of the panther is not secure."*** **(emphasis added)** *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. Restoration of the Secondary Zone will help maintain spatial extent.****"* **(emphasis added)** (see page 104-105 of FWS 2008). The key concepts here are not allowing continued loss in the "Preserve" area, but instead restoring these areas so that they maintain function and value and spatial extent, especially given surrounding substantial losses.

Kautz *et al*. (2006) clearly stated: "*Habitat quality, functionality, and availability for panthers must be maintained to ensure that no net loss of function or carrying capacity occurs. When adverse land uses within the Primary Zone are unavoidable, affected lands should be compensated by the restoration or enhancement of habitat that maintains or increases the potential carrying capacity for panthers elsewhere within the Primary Zone.*" Under the cloak of the label "Preserve" areas, the HCP does nothing to restore or enhance, maintain or increase carrying capacity for panthers elsewhere in the Primary Zone.

More recently, Frakes *et al*. stated (2015): "*Because there is less panther habitat remaining than previously thought, we recommend that all remaining breeding habitat in south Florida should be maintained, and the current panther range should be expanded into south-central Florida.*" The HCP clearly results in substantial losses in breeding habitat in the "Covered Activities Areas" and in the "Preserve Areas".

Please note that Frakes (2018) examined scenarios associated with the proposed HCP and stated the following: "*It is important to note that even the proposed Preserve Areas will suffer considerable habitat losses. Under Scenario 1, the "Preservation/Plan-Wide Activities" area was predicted to lose 4753 acres (8.0%) of panther breeding habitat. Under Scenario 2, the predicted loss increased to 6744 acres (11.4%). These losses are approximately the same size as the town of Ave Maria. Any compensation calculation should take potential habitat impacts within the Preserve Areas into account.*" (Frakes 2018).

<u>Panther-Human Conflicts and Societal Implications - Expect More Panther Translocations or Removals; Consequences for Panther Survival and Recovery (TAKE NOT ACCOUNTED FOR)</u>

Encouraging more humans to live where panthers live is not a smart move for panther conservation or human safety. The size and location of this enormous proposed project, in lands essential for the conservation of the panther, will undoubtedly cause the influx of hundreds of thousands of people, domestic animals, and pets. This encroachment will undoubtedly lead to increases in human-panther interactions. This is not smart, responsible, or compatible with panther survival and recovery.

As stated in the Panther Recovery Plan: "*Panthers are sometimes thought of as a wilderness indicator species, not because they require wilderness to live or cannot live in proximity to people, but because people will not usually tolerate panthers living in close proximity to them. People have historically been fearful of panthers due to concern for their livestock as well as their own lives. As humans encroach in panther habitat the likelihood of human-panther interactions increases. People's perceptions and attitudes about panthers will be a major determining factor in the success of panther recovery.*"

The 2017 Interagency Florida Panther Response Team Annual Report (produced by FWC, FWS, and the National Park Service) provides the most current tally of human-panther interactions

(http://myfwc.com/media/4506188/pantherannualreport2017-18.pdf), and the environmental assessment, produced in 2008, provides the basis for this approach (https://www.fws.gov/verobeach/MammalsPDFs/R4FWSPantherEAFinal.pdf?spcode=A008). The 2017 report gives information on the interaction classes (i.e., sightings, encounters, incidents, threats, and attacks) and responses. The 2017 report stated that: "*During the reporting period two encounters, 2 incidents, and 80 panther depredations contained physical evidence to support a panther was involved (Table 1). There were no threats or human attacks.*" The report goes on to indicate: "*Three events required management action: one panther was relocated and two were made to move from locations where they were temporarily settled to expedite their return to a safer area.*"

The above information should be considered to be the baseline, and the proposed development and influx of residents, customers, and visitors will only increase interactions until panthers are no longer able to survive in the area. Management actions may include removal of cache panther prey or depending upon risk to human safety any of the following with any additional management actions such as aversion conditioning, relocation, permanent removal from the population (i.e., to captivity or euthanasia), and this must be accounted for (see https://www.fws.gov/verobeach/MammalsPDFs/R4FWSPantherEAFinal.pdf?spcode=A008). Clearly, any take above the baseline (as given in the 2017 report) must be fully considered and accounted for. The proposed project, in the heart of panther habitat, will only increase the likelihood of human-panther interactions in the immediate future.

Please see the "Human Dimension" discussion in the Recovery Plan (see pp. 54-56). As stated in the Recovery Plan: "Human intolerance has the potential to be a major challenge to panther recovery". How tolerant will humans be if or when one adult or child feels threatened, is injured, or is killed as a result of this project? If any human is injured or killed, it will be devastating for their family and friends, and it will undoubtedly end any glimmer of hope for reintroductions, which are necessary to establish additional panther populations and achieve recovery as described in the current Recovery Plan.

SUMMARY

Considering all of the above, it is clear that the proposed project will result in unacceptable impacts to the panther that will most certainly appreciably reduce the likelihood of survival and recovery of the panther in the wild. If the best scientific information is used and effects are fully analyzed and accounted for, it is clear that substantial impacts will occur in the form of panther habitat loss, fragmentation, spatial extent, and connectivity and these substantial losses occur in lands identified as "*essential to the long-term viability and persistence of the panther in the wild*" and lands contiguous "*which could accommodate expansion of the panther population south of the Caloosahatchee River*" (FWS 2008). This proposed project would result in disruptions of panther movement and changes to home ranges to a considerable proportion of current panther population. The squeezing of panthers into a reduced area will undoubtedly lead to more intraspecific aggression. The hundreds of thousands of people and vehicles will result in increased injuries and mortalities from panther-vehicle collisions and increased interaction with humans, which will surely lead to increases in management actions such as aversions, relocations, and removals from the wild. When examining the enormous impacts to panthers and panther habitat, it is clear and evident that the proposed project does not meet issuance criteria in that it will appreciably reduce the likelihood of survival and recovery in the wild. When considering the full impacts, it is difficult to see how the FWS could determine the project does not jeopardize the continued existence of the panther under section 7(a)(2) of the ESA.

2. THE APPLICANT WILL, TO THE MAXIMUM EXTENT PRACTICABLE, MINIMIZE AND MITIGATE THE IMPACTS OF SUCH TAKING:

All Forms of Take are Not Recognized, Considered, or Accounted For

All forms of take are not recognized, considered, or accounted for. Take as defined in the ESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct". "Harass" is defined by FWS as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. "Harm" is further defined by FWS to include significant habitat modification or degradation that results in death or injuries to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering.

The Applicants opted to use a narrow, harassment-only view of take. The HCP states: "*The form of take anticipated to occur is, for most species, limited to unintentional "harassment" – e.g., a development activity that unintentionally annoys a species to the extent that normal behavioral patterns are disrupted. No intentional take (such as hunting, capturing or killing) will occur, and no such take authorization is requested.*". Further, the HCP states: "*The direct and indirect impacts to panther discussed previously (section 4.2.1) could potentially result in take of the Florida panther only in the form of harassment*." (see page 98). This overtly narrow view of take is naive, unrealistic, inaccurate, misleading, and dishonest.

With regard to potential direct impacts to the panther from construction, the HCP states "*To summarize, the direct impacts from residential/commercial development construction on the Florida panther will be temporary, similar in certain locations and respects to ongoing activities on those same lands, and at any given time will be limited to those areas where construction is actively ongoing within a few hundred meters of panther habitat.*" (see p. 80 of HCP). It goes on to cite nearly a decade-old biological opinion for a restoration project as the basis for that statement. Applicants use the same flawed logic in estimating direct impacts from mining: "*However, as with construction, the effects will be temporary and limited only to a few hundred meters from the operating machinery*." Apparently, the Applicants do not see any "Harm" and do not recognize or consider the lasting direct impacts from permanent and substantial habitat loss, fragmentation, and degradation. If all forms of take are acknowledged or recognized, how can appropriate measures be taken to "minimize and mitigate" to the "maximum extent practicable"? The take associated with the project goes well beyond temporary disturbance.

The FWS must recognize that this project will result in many forms of take (i.e., both harassment and harm), including permanent loss of habitat and individuals with substantial consequences to the existing population and the species over a 50-year time horizon. This take is extensive and substantial and, for the most part, lasting and permanent. Some forms of take occur over time through the life of the project.

For the panther, take and contributing impacts leading to take as a result of this project include the following:

- Substantial habitat loss and destruction of "*lands essential to the long-term viability and persistence of the panther in the wild*" and lands that "*could accommodate expansion of the panther population south of the Caloosahatchee River*" (FWS 2008). At a minimum, this is 45,000 acres of lost habitat.
- Substantial fragmentation of habitat in the heart of panther habitat (see above).
- Substantial reduction in vital wildlife corridors, critical to panther movement, and paramount to survival and recovery (see above).
- Substantial increases in human population, infrastructure, and roads in the lands deemed essential to long-term viability and persistence and areas needed for panther population expansion.

- Substantial changes to individual panther home ranges to a considerable portion of the panther population.
- Expected substantial changes to movement patterns and more difficulty finding mates, finding prey, caring for young, etc.
- Expected substantial increases in deaths and injuries from intraspecific aggression, due to the substantial losses and fragmentation of essential habitat, including permanent losses of spatial extent and configuration (as explained above).
- Expected substantial increases in the number of panther mortalities, injuries, or removal from the wild due to panther-vehicle collisions, due to the substantial increases in vehicles and traffic on existing and more high-speed roads.
- Expected substantial increases in relocations or removal from the wild, due to the expected increases in the likelihood of panther-human interactions.
- Continued take from current and future land use practices and management (e.g., prescribed fire, thinning of forest, etc.)

The Applicants generally use the narrow view given above for the other listed and imperiled species. However, they do acknowledge: "*While unlikely, the applicants believe it is possible that certain ground-burrowing species – including gopher tortoise, gopher frog, eastern indigo snake, and eastern diamondback rattlesnake – as well as the Florida bonneted bat – may be harmed by the Covered Activities. The potential for harm to these species is discussed in the sections of chapter 6 that address these species.*"

For the Florida bonneted bat, considerable losses of bonneted bat habitat and individuals can be expected. Roosting habitat includes forest and other areas with tall, mature trees or other areas with suitable roost structure (e.g., utility poles, artificial structures). Natural roosts include tree snags, trees with cavities, hollows, deformities, decay crevices, and loose bark. Bonneted bats have also been found to roost in utility poles and human-occupied and abandoned buildings. Foraging habitat is comprised of relatively open (uncluttered) areas to find and catch prey and sources of drinking water. These areas include open fresh water, permanent or seasonal freshwater wetlands, wetland and upland forested and non-forested areas, and agricultural lands (Bailey *et al.* 2017). Bailey *et al.* (2017) found occupancy to be negatively correlated with the amount of developed land and positively correlated with the amount of crop-based agriculture.

Virtually no survey information is available for the project site. However, it is safe to assume that the entire project site is occupied and contains important roosting and foraging habitat. The species is known to roost on public conservation lands in the vicinity of the project site (e.g., FPNWR, Fakahatchee Strand Preserve State Forest, Big Cypress National Preserve) and elsewhere in Collier County. These sites are well within the accepted reasonable flight distances for the species.

Please see final listing rule for the Florida bonneted bat (https://www.gpo.gov/fdsys/pkg/FR-2013-10-02/pdf/2013-23401.pdf), specifically the "Summary of Factors Affecting the Species" and activities that would violate section 9 of the Act if not authorized. I call your attention to the following:

- *"Unauthorized possession, collecting, trapping, capturing, killing, harassing, sale, delivery, or movement, including interstate and foreign commerce, or harming or attempting any of these actions, of Florida bonneted bats."*
- *Incidental take of the Florida bonneted bat without authorization pursuant to section 7 or section 10(a)(1)(B) of the Act."*
- *"Unauthorized destruction or alteration of Florida bonneted bat occupied or potentially occupied habitat (which may include, but is not limited to, unauthorized grading, leveling, plowing, mowing, burning, clearing, lighting, or pesticide application) in ways that kills or*

injures individuals by significantly impairing the species' essential breeding, foraging, sheltering, or other essential life functions."

- *"Unauthorized removal or destruction of cavity trees and other natural structures being utilized as roosts by the Florida bonneted bat that results in take of the species."*
- *"Unauthorized removal or exclusion from buildings or artificial structures being used as roost sites by the species that results in take of the species."*

Please bear in mind that the Applicants may not be asking for incidental take for all activities, but the FWS must consider all forms of take when considering issuance of the permit under section 10 of the ESA and when conducting consultations pursuant to section 7(a)(2) of the ESA.

For the Florida bonneted bat, take and contributing impacts leading to take as a result of this project can be expected to include the following (list not exhaustive):

- Substantial habitat loss and destruction of lands essential to the conservation of the species in the wild. At a minimum, this is 45,000 acres of lost habitat.
- Substantial losses of forest and agricultural lands, which are important for roosting and foraging (see Bailey *et al.* 2017, Braun de Torrez *et al.* 2016, 2018; Ober *et al.* 2016, 2018).
- Expected continued losses of natural roost sites due to forestry practices.
- Expected changes to individual bat home ranges, movement patterns, due to loss of natural habitats and resources.
- Expected negative impacts to survival and reproduction in the local population due to fewer natural roost sites, decreased foraging conditions, impacts to prey base, and associated difficulties in caring for young, due to fewer resources.
- Expected increases in intolerance from humans that may necessitate the need to exclude or remove from human structures due to the addition of hundreds of thousands of people and buildings expected in the project area (see p. 61041 of Final Listing rule).
- Continued take from current and future land use practices and management (e.g., prescribed fire, thinning of forest, etc.).
- Expected increases in artificial lighting, which alters behaviors of bats and prey, with the addition of hundreds of thousands of people and buildings expected in the project area.
- Continued take from the applications of pesticides to agricultural areas that will likely impact prey availability and have other consequences.
- Disturbance from construction, mining, agricultural, and land management practices.

Estimating take for the Florida bonneted bat *and other listed and imperiled species* is problematic because there is insufficient data from the project site and no baseline surveys for covered species were undertaken, and none are planned. At one point, the HCP states: "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", but what is the basis for this statement without adequate survey efforts?

Since there is no mention of conducting surveys before or after the project, it will be virtually impossible to accurately estimate the amount of incidental take expected to occur or to determine the amount that actually occurs. Not knowing when incidental take is exceeded is one of the many major flaws of this HCP.

Applicants do not "Minimize and Mitigate" the Impacts of the Takings to the "Maximum Extent Practicable"

Applicants do not fully minimize and mitigate the impacts of the takings to the maximum extent practicable. As indicated above, they do not even fully recognize all forms of direct and indirect impacts or the extent of take in the form of harassment and harm (see above).

Failings to minimize and mitigate take to maximum extent practicable

There is no basis or justification for the need for 45,000 acres of habitat loss. The HCP does not explain why 45,000 acres are needed, but it is implied that that is what Applicants feel is allowable under provisions of the RLSA. However, Federal, State, County, and local laws and regulations must also be considered.

There is no justification or consideration for why the proposed development and mining ("Covered Activities Area") could not be accomplished in a less destructive manner (i.e., smaller footprint) or in less sensitive habitats. See the Frakes (2018) report. For example, why couldn't the proposed project be moved to a less sensitive area (either reduced inside the project boundary or moved to lands owned by the Applicants outside of this area)?

For the panther, the HCP mainly uses the FWS' Panther Habitat Assessment Methodology (FWS 2012) to suggest that the "Preservation Areas" provide adequate compensation/mitigation to offset the loss of habitat from the "Covered Activities" (development and mining). However, the FWS methodology is scientifically flawed and severely outdated, and it has been for more than a decade. The current methodology has not undergone any peer-review. The draft methodology was based upon a rule-set and basic premises that were removed by FWS managers (e.g., the methodology would only be used on non-jeopardy projects; it was not to be used on projects that would result in jeopardy; losses in the Primary Zone should be compensated with securing habitat in the Primary Zone; restoration of habitat (replacing function) was a key component needed to "create" panther habitat to maintain spatial configuration and extent: and the base ratio of 2.5:1 would be reexamined every two years since 2004 (note: this ratio was expected to increase as panther habitat was lost and fragmented)). The FWS staff who prepared the original draft methodology made FWS managers aware that the approach was flawed and not consistent with the best available panther science, namely that produced by the MERIT Panther Subteam and subsequently published as Kautz *et al.* 2006) in 2006. FWS biologists and former employees also made management aware of this at subsequent meetings (2017-2018).

Further, with regard to the current Panther Habitat Assessment Methodology (FWS 2012), Frakes *et al*. (2015) states: "*Our study suggests that changes are needed to current conservation policies and practices for the Florida panther, especially with regard to methodologies for calculating habitat needs and impacts from development. For example, the U.S. Fish and Wildlife Service (USFWS) Panther Habitat Assessment Methodology (see Biological Opinions issued by USFWS since 2003 [43]) under-values the remaining adult habitat by overestimating the value of lands outside the Primary Zone.*" The 2012 methodology has been flawed since its inception, but revision is needed because: 1) there is substantially less panther habitat remaining than when the approach was first formed; and, 2) lands outside the Primary Zone were over-valued.

The methodology has been twisted and abused by Applicants and the FWS for more than a decade, but no more severely than here in this massive landscape-scale project in essential habitat. At a minimum, GIS staff need to examine how much panther habitat is remaining south of the River under Kautz *et al.* 2006 and Frakes *et al.* 2015, and adjust it accordingly to a presumably higher ratio before it is used again.

The Applicants can certainly do more to "minimize and mitigate" the impacts from the takings of this proposed project. The Applicants have flexibility (i.e., no specified justification for why the project has to be so large or located in this environmentally sensitive area) and they undoubtedly have other land holdings elsewhere. To reach the "maximum extent practicable" standard, the Applicants should re-consider the project and alternatives, and consider incorporating all or some of the following actions:

- Scrap this HCP and re-design the project, taking into consideration all forms of take and including, full accounting of take involved (involves field surveys and assessments for "Covered Species").
- Move the proposed development and mining projects on lands outside of this environmentally sensitive area (i.e., outside of "lands essential" for the panther) (may involve working with other landowners).
- Reduce the size of the project (i.e., reduce the footprint to well under 45,000 acres).
- Move the reduced project footprint to areas that are less "essential" to the panther.
- Select the PRT configuration / alternative by working with other landowners.
- Expand and enhance the two vital corridors, instead of impacting and reducing these to the point where they may are unusable for panthers.
- Secure additional lands outside of the project area and north of the Caloosahatchee River to mitigate for the losses in recovery potential for the panther.
- Modify the project design, so that it involves far fewer dwelling units, which would reduce the number of new residents, number of vehicles, and need for new or high-speed roads, thereby reducing expected panther mortalities.
- Analyze traffic and commit funding to all necessary wildlife crossings.
- Specify the actual designated holders of perpetual easements and ensure that holders are acceptable and agree to hold the easements and care for land appropriately (i.e., are provided with adequate funding, equipment, and personnel).
- Remove incompatible land uses in the "Preserve" areas; commit to active or passive restoration.
- Commit to restoring native vegetation through active restoration in the "Preserve" areas, fully identify the holder of the easements, and ensure that this work is done, in advance of any development, so that some value for what is lost can be regained.
- Ensure for adequate funding, equipment, and personnel to conduct full restoration in the "Preserve" areas.
- Ensure for adequate funding for baseline species surveys and post-project surveys, in both the "Covered Activities Areas" and the "Preservation Areas".

If the Applicants refuse to offer changes to the HCP, the FWS should find that they have not met this issuance criterion and deny the request for ITPs. The Secretary may also require additional necessary or appropriate measures for the plan before any ITPs are issued.

3. *THE APPLICANT WILL ENSURE THAT ADEQUATE FUNDING FOR THE PLAN WILL BE PROVIDED;*

To meet issuance criteria, the Applicants are to "*ensure that adequate funding for the conservation plan (implementation and mitigation) and procedures to deal with changed circumstances will be provided (including what the applicant will do in the face of changed circumstances and the funding to implement those actions)*".

The HCP appears to be grossly underfunded in general and does not inadequately provide for changed circumstances. The Applicants do not ensure for adequate funding for actions that would be needed to

implement and mitigate (to the maximum extent practicable). The discussions regarding funding are foggy, confused, and unconvincing.

First, the HCP states "*implementation of the HCP will produce the multimillion-dollar fund revenues through dual funding mechanisms based on (i) contributions to be made on a per-acre basis as lands within the HCP Area are developed and (ii) transfer fees to be paid on a per unit basis as homes within the HCP Area are sold and re-sold. These contributions will be deposited into the Paul J. Marinelli Fund, originally created by the FPPP to fund panther conservation activities. The Marinelli Fund will be administered by a board of directors comprised of representatives of each of the four conservation organizations that are members of the FPPP, two representatives of the landowner members of the FPPP, and one at-large member who will serve at the invitation of the other six members of the Board.*" Since the Marinelli fund was created by the FPPP, apparently years ago, the current funds need to be considered as part of the baseline (i.e., the without project baseline).

Further, the HCP states: "*In 2016, the FPPP expanded the potential scope of the Fund's uses to include funding conservation activities to benefit other species covered by the ECMSHCP, in addition to panther. The Marinelli Fund is expected to grow to approximately $150 million during the 50-year term of the ITPs, and* ***to be used for conservation activities that go beyond the Plan (emphasis added)****, including such initiatives as enhancement and management of the wildlife corridors within the preservation area; location and construction of panther and other wildlife fencing along and crossings under roadways; funding for land acquisition, enhancement, and/or management, to provide additional species habitat; and scientific research relevant to conservation of the species addressed by the HCP.*"

On page 286, the HCP describes the Marinelli Foundation and states: "*Because the Marinelli Fund is expected to receive funds well in excess – at least tens of millions of dollars in excess – of what will be required to implement the Plan, the same Fund is also expected to be used for conservation initiatives that go beyond the Plan, such as construction of wildlife crossings and fencing, habitat acquisition and restoration, corridor enhancement, public education and outreach focused on the importance of wildlife conservation, and scientific research relevant to species conservation.*"

The problems here are many: 1) the fund is only "expected to grow" – it is not certain to grow; 2) the "initiatives" should be a core and fundamental (i.e., mandatory part of the HCP); 3) funds are generated through development, which is not in keeping with the spirit of avoiding or minimizing; 4) the project costs for what the plan with full implementation (minimization and mitigation) is not given; 5) there is no explanation for "excess" funds; and, 6) there are no other assurances of adequate funding to implement the plan fully to minimize and mitigate to the maximum extent practicable or deal with changed circumstances, which are clear requirements to meet issuance criteria under section 10 of the ESA.

It is not clear how the figure of "$150 million during the 50-year term of the ITPs" was calculated, but it does not appear to be sufficient considering the needs for implementing and mitigating for the impacts of the HCP and dealing with changed circumstances. This would be just $3 million each year allocated for the preservation and management of theoretically 107,000 acres of land. Consider the current and future costs of exotics control, prescribed fire, or hydrologic restoration; a review of the many projects underway or completed in south Florida over the past two decades would shed light on if the budget is appropriate or adequate. How much does a wildlife crossing cost and how many are needed? The input of public land managers, prescribed fire specialists, hydrologists, traffic analysts, and economists should be consulted to see if the budget is adequate for implementation, mitigation, and changed circumstances.

GENERAL COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

1. The FWS should deny the ITP applications because the HCP fails to meet at least three of the permit issuance criteria as required by section 10 of the ESA and as described in detail above.

2. The examination of only two alternatives is woefully inadequate and unacceptable. Stakeholders involved in the Scoping Meetings, agency biologists, FWS staff, and FWS contractors discussed many more alternatives, which should have been fully explored, considered, and evaluated.

3. The dEIS uses unfounded and flawed assumptions in describing and evaluating Alternative 1, thereby mischaracterizing and misrepresenting this alternative (see below).

4. The dEIS cites and mischaracterizes portions of the flawed HCP (see above and below), thereby failing to evaluate Alternative 2 accurately.

5. The dEIS does not use the best available and current scientific information and data as mandated by FWS and DOI standards and codes of conduct. This is especially true for threatened and endangered species (e.g., see literature, data, reports, listing, 5-year status reviews, recovery plans and other documents and spatial data in at the FWS' SFESO). Much of the information used and references cited are outdated.

6. The FWS did not provide adequate, direct, or timely notice to scientists, in particular with regard to the Florida panther (e.g., Scientific Review Team, Panther Subteam of MERIT, researchers, other independent scientists, academicians), who could ensure that the best available information was being used, examined, and analyzed.

7. The FWS did not provide adequate, direct, or timely notice to other species experts, scientists, or researchers (e.g., peer-reviewers from academia).

8. The FWS did not seek the input of land managers, hydrologists, prescribed fire specialists, traffic analysists, economists, or others to see if the environmental impacts were fully considered and evaluated.

An EIS can be extremely helpful for this consequential project as it can: (1) help ensure a complete, unbiased, and robust evaluation of significant environmental impacts; and (2) inform decision-makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the environment (https://www.fws.gov/ecological-services/es-library/pdfs/NEPA.pdf). Unfortunately, this dEIS does not. Only the minimum number of alternatives is examined, the premises underlying the alternatives are flawed, and the analyses are inadequate and hardly robust.

It is not clear why FWS depicts Alternative 1 – the "No Action" alternative as full build-out with few environmental considerations. The dEIS states that "*any land use action taken by land owners could be done with, or without the following: coordination among landowners, landscape-level planning, monitoring or mitigation*". This is simply untrue. Most land use actions would need to be reviewed under existing Federal, State, County, and local laws and regulations. Those actions involving a Federal nexus would be evaluated through section 7 of the ESA; those not involving a Federal nexus should be evaluated through section 10 of the ESA. Much of the land is comprised of wetlands that would be difficult or cost-prohibitive to develop. Some portions of the HCP project area may already have state permit conditions, conservation easements, and set-aside areas that were negotiated for under previous project reviews (see SFWMD and FDEP ERP permits) or through NRCS programs. Further, FWS should not assume that all landowners would want to alter land uses, nor that actions would be taken without

oversight or mitigation. FWS should not discount the voluntary and incentives programs provided by the Federal government (e.g., Farm Bill, Safe Harbors, Partners for Fish and Wildlife programs) and other governmental and non-governmental mechanisms.

It is not clear why the FWS opted to portray Alternative 2 in a misleading fashion or perpetuate the unsubstantiated statements of the flawed plan. For example, the dEIS states that "*this dEIS makes a conservative assumption that the approximately 107,000 acres of lands would be designated solely for preservation*". The HCP does not propose this amount of acres for preservation. Also, most people would not see continued historical uses (e.g., "*crop cultivation, ranching/livestock operations; forestry and silviculture; recreation; exotic and nuisance species control; and oil and gas exploration and production*" as preservation in what is supposed to be a habitat conservation plan. How would this assumption be considered "conservative"? It seems very misleading. Why wouldn't the FWS use current census information and traffic analyses in analyzing the expected increases in people and vehicles? Further, how would the hundreds of thousands of additional vehicles on the roads not accelerate air pollution? These are just a few of the obvious questions.

Finally, the dEIS states: "*To date, no irreversible or irretrievable loss of resources associated with the proposed project has occurred. Further, the USFWS will not approve a proposal that would result in irreversible or irretrievable loss of resources prior to publication of the Record of Decision (ROD), and its decision to issue, or deny issuance, of any ITPs.*" This does not appear to be accurate. Some of the projects contained in the HCP have been partially reviewed and / or built. Also, hundreds or possibly thousands of hours of FWS staff time has gone into matters associated with the development and review of the draft HCP, and an estimated $442,451 was apparently spent in developing and producing the dEIS.

SOUTH FLORIDA
WILDLANDS ASSOCIATION

P.O. Box 30211
Ft. Lauderdale, FL 33303

David Dell
Regional HCP Coordinator
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345

Dear David:

South Florida Wildlands Association (SFWA) appreciates the opportunity to submit some brief written comments on the draft Environmental Impact Statement (EIS) prepared for the Eastern Collier Multi-Species Habitat Conservation Plan (HCP). We urge you in the strongest possible terms to reject this Habitat Conservation Plan which will forever alter and degrade the landscape for the Florida panther and for the numerous state and federally listed animals which share the panther's habitat and live under its "umbrella." Table 2 (below) from the Federal Register indicates the 19 species which will be impacted by what have been referred to as "covered activities" within the footprint of the plan.

TABLE 2—HCP-COVERED WILDLIFE SPECIES AND THEIR PROTECTED STATUS

Status	Common name	Scientific name
Listed as endangered under the ESA	Florida panther	*Puma concolor coryi.*
	Florida bonneted bat	*Eumops floridanus.*
	Red-cockaded woodpecker	*Picoides borealis.*
	Everglade snail kite	*Rostrhamus sociabilis plumbeus.*
Listed as threatened under the ESA	Wood stork	*Mycteria americana.*
	Northern crested caracara	*Caracara cheriway.*
	Florida scrub jay	*Aphelocoma coerulescens.*
	Eastern indigo snake	*Drymarchon corais couperi.*
Candidate Species or Species under review for Federal listing	Gopher tortoise	*Gopherus polyphemus.*
	Eastern diamondback rattlesnake	*Crotalus adamanteus.*
	Gopher frog	*Lithobates capito.*
State-listed species	Big Cypress fox squirrel	*Sciurus niger avicennia.*
	Everglades mink	*Neovison vison evergladensis.*
	Burrowing owl	*Athene cunicularia.*
	Florida sandhill crane	*Antigone canadensis pratensis.*
	Little blue heron	*Egretta caerulea.*
	Roseate spoonbill	*Platalea ajaja.*
	Southeastern American kestrel	*Falco sparverius Paulus.*
	Tricolored heron	*Egretta tricolor.*

So as to not create duplicative comments, South Florida Wildlands is incorporating by reference the entire submission by Center for Biological Diversity and other environmental organizations on the Eastern Collier HCP to our comments. Those comments have been attached to this document.

We are also a signer to a group letter sent to your office by 41 environmental organizations urging you to reject the HCP for Eastern Collier. That letter is also attached.

South Florida Wildlands Association has also created a sign-on petition of its own that has currently received almost 5,000 signatures (4,622 signatures as of 11:27 PM) The text of that petition is below – and is also incorporated into these comments. Full petition with up-to-date signature count can be found at the URL of the petition here:

https://www.change.org/p/u-s-fish-and-wildlife-service-45-000-acres-of-florida-panther-habitat-may-be-lost-forever

The attached signatures were only those available as of this afternoon.

Most importantly, we would like to emphasize the extent to which this current HCP is completely contrary to years of panther science, protection, and recovery efforts. In the scientific paper which first delineated the three panther zones – primary, secondary, and dispersal – Kautz et al ("How much is enough? Landscape-scale conservation for the Florida panther," 2005) stated the following in the abstract of their work:

The Florida panther (Puma concolor coryi) is an endangered, wide-ranging predator whose habitat needs conflict with a rapidly growing human population… A model of landscape components important to Florida panther habitat conservation was created. The model was used in combination with radio telemetry records, home range overlaps, land use/land cover data, and satellite imagery to delineate Primary and Secondary zones that would comprise a landscape mosaic of cover types sufficient to support a self-sustaining population. The Primary Zone generally supports the present population and is of highest conservation value, while the Secondary Zone is of lesser value but could accommodate expansion of the population given sufficient habitat restoration. Least-cost path models identified important landscape linkages, and model results were used to delineate a Dispersal Zone to accommodate future panther dispersal outside of south Florida. We determined that the three habitat zones could support 80–94 panthers, a population likely to persist and remain stable for 100 years, but that would be subject to continued genetic problems. **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 (emphasis ours).**

Thus, the well-known "mosaic" of natural, semi-natural, and agricultural lands, in combination with the massive public lands of south Florida is just enough to support a viable panther population. For now. It should also be pointed out that FWS is well aware of the way in which panthers and other terrestrial wildlife move in and out of many of the public lands (e.g. the Big Cypress National Preserve) in response to changes in hydrological conditions.

Here is an excerpt from the FWS Biological Opinion on the **ORV Management Plan for the Big Cypress National Preserve Addition Lands (July 2000):**

“Janis and Clark (1999) surmise that the increase in the distance of panther locations from trails is "biologically minor" and probably related to prey behavior; *i.e.* white-tailed deer moving deeper into the forest to avoid ORV users. The decrease in panther use of the Bear Island Unit is balanced by an increase in use of private lands north of BICY as "refugia." The authors assert that this pattern would be of serious concern if panther habitat on private lands were lost.”

Later research on white-tailed deer, a major prey species for the panther, showed strong impacts from inundation in the Big Cypress during the wet season – when terrestrial wildlife must move north out of the Big Cypress and all public lands - Fakahatchee Strand Preserve State Park, Picayune Strand State Forest, and the Florida Panther National Wildlife Refuge - in order to survive. Losing the better drained lands north of these areas as habitat will likely be catastrophic for panthers and the other wildlife covered by this plan.

Photo of a swampwalk in Addition Lands of Big Cypress during a typically wet October. This is NOT usable panther habitat at this time of the year.



Text of South Florida Wildlands Association sign-on petition regarding the Eastern Collier Multi-Species Habitat Conservation Plan:

The U.S. Fish and Wildlife Service has released a draft Environmental Impact Statement which approves 45,000 acres of dense suburban development and limestone mines in addition to hundreds of miles of new or widened roads in some of the most important habitat which remains for the endangered Florida Panther. The Eastern Collier Multi-Species Habitat Conservation Plan will also have severe impacts on numerous other listed species, including the gopher tortoise, crested caracara, wood stork, eastern

indigo snake, scrub jay, red-cockaded woodpecker and the Florida bonneted bat, one of the most endangered mammals on our planet. We call on the U.S. Fish and Wildlife Service to reject this plan.

Once roaming throughout the southeast United States and the entire Florida peninsula, Florida Panthers can now be found almost entirely in a tiny corner of still-rural land in southwest Florida. Although the population has rebounded from a low of perhaps 20 to 30 panthers in the 1970s to an estimated 120 to 230 adult and sub-adult panthers today, this is still an extraordinarily low number for the only big cat left in the entire eastern United States. And with over 1,000 new residents per day moving to Florida, that habitat is considerably smaller and more fragmented today than it was in the 1970s. The Eastern Cougar was officially declared extinct and removed from the endangered species list in January of 2018.

According to the landmark study (How Much is Enough?, Kautz et al, 2005) which designated the panther's primary, secondary and dispersal zones - "The Florida panther (Puma concolor coryi) is an endangered, wide-ranging predator whose habitat needs conflict with a rapidly growing human population." That study also found that the entire mosaic of natural, semi-natural, and agricultural lands which remain for panthers are "essential components of a landscape-scale conservation plan for the protection of a viable Florida panther population." None of it is expendable. As for those undeveloped lands that are not currently considered high quality for panther use (the so-called "secondary zone"), they still provide important connectivity to the landscape. They should be restored as quality panther habitat and certainly not be intensively developed.

The service's plan now up for approval flies in the face of this reliable science and allows the following:

A human population bomb inside the core panther habitat. The 45,000 acres of dense development being proposed is equal in size to Washington D.C. It will mean hundreds of thousands more people living in this sparsely populated area - devouring habitat and wildlife corridors in the process. Of the 45,000 acres of new development, 20,000 acres are actually inside the primary zone - the core breeding and foraging range for the Florida Panther. One new development alone - Rural Lands West - will put 10,000 new homes and a major golf course on land adjacent to the Florida Panther National Wildlife Refuge and on top of a critical wildlife corridor!

A greatly expanded road network. The plan envisions 200 miles of new roads and road widening projects inside the plan's footprint. Roadkill is already the leading cause of death by far for panthers - of the 27 panthers

killed so far this year, all but three died from vehicles. In 2017, the death toll was 30 panthers while 2016 set a new record with 42 panther deaths in a single year.

By 2050, under this plan, about one million more vehicle-trips will be added to the same roads which are already the leading cause of panther mortality. State Road 29, which currently runs north-south between the Florida Panther National Wildlife Refuge and the Big Cypress National Preserve and is ground zero for panther roadkill, will become the main thoroughfare in this tract of new and completely unnecessary Florida suburbia. Another area road known for panther roadkill - Corkscrew Road - could see traffic increase as much as 23.5 times from current rates.

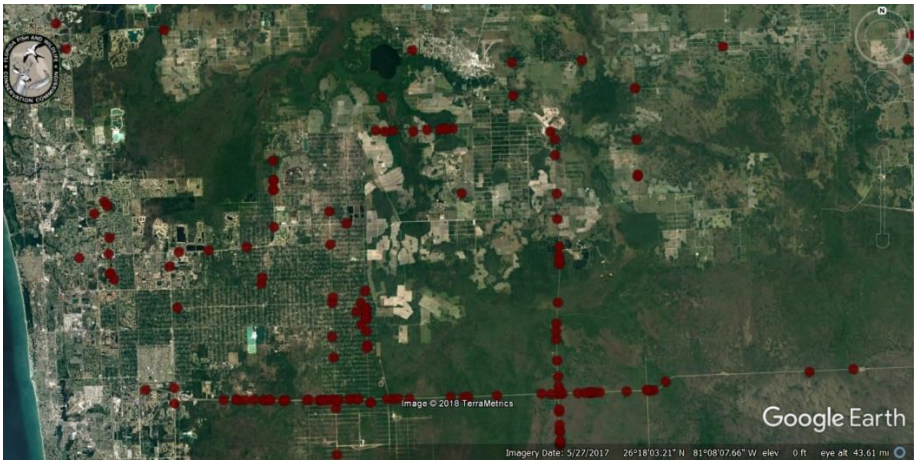
Many other consequences will follow from this plan - light pollution, environmental release of heavy metals and other chemicals from road runoff, spread of invasive plants, degradation of area wetlands through depletion of groundwater resources and paving over of aquifer recharge areas, genetic isolation of vulnerable plant and wildlife communities, and a great increase in contact between wildlife and people. For panthers, that means an increase in predation on pets while for the Florida black bear and its famous sense of smell (also a resident of the area), that will surely mean more raids on homes and garbage cans. Florida has a "one strike and you're out" policy with regard to "nuisance bears" and we expect increases in the number of black bears which will be killed under that program - as well as an uptick in the number of bears which will die as a result of vehicles.

Citing their new requirement to "streamline" decision-making (Secretary's Order 3355, August 2017), the U.S. Fish and Wildlife Service is refusing to hold a public meeting on their review of this plan - or even meet with stakeholders individually to clarify important details. This is unacceptable for a project of this size, complexity and level of impact. When the Endangered Species Act was signed into law in 1973, Congress found that many species were being lost as a "consequence of economic growth and development untempered by adequate concern and conservation." Now, 45 years after the passage of the act, that appears to be exactly the case here.

This current Habitat Conservation Plan is just the latest in a long and unbroken string of projects approved in the habitat of the Florida Panther by this same agency. It defies the purpose for which the Endangered Species Act was written - the recovery of threatened and endangered wildlife species. In the face of what is perhaps the biggest threat Florida's beloved State Animal, the Florida Panther, has ever faced, we say "enough is enough."

We can also add to this document roadkill maps of the area (for both panthers and Florida black bears). These numbers are guaranteed to increase under a plan that will increase the human population and traffic in the area many times from current numbers.

Source: http://atoll.floridamarine.org/Quickmaps/QM_wildlife.html



Florida black bear roadkill – vicinity of the HCP.



Florida panther roadkill – vicinity of the HCP.

Best regards,

Matthew Schwartz
Executive Director
South Florida Wildlands Association
P.O. Box 30211
Fort Lauderdale, FL 33303

954-993-5351 (cell)

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RESEARCH ARTICLE

Landscape Analysis of Adult Florida Panther Habitat

Robert A. Frakes[1]*, Robert C. Belden[1¤], Barry E. Wood[1], Frederick E. James[2†]

1 U.S. Fish and Wildlife Service, South Florida Ecological Services Office, 1339 20th Street, Vero Beach, Florida, United States of America, **2** National Park Service, South Florida Natural Resources Center, Everglades National Park, Homestead, Florida, United States of America

† Deceased.
¤ Current address: 22032 SW 15th Avenue, Newberry, Florida, United States of America
* frakesr@comcast.net

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Data Availability Statement: All relevant data are within the paper and its Supporting Information files, or at the following URLs: Panther telemetry data: http://ocean.floridamarine.org/TRGIS/Description_Layers_terrestrial.htm; panther annual reports: http://www.floridapanthernet.org/index.php/reports/.

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Abstract

Historically occurring throughout the southeastern United States, the Florida panther is now restricted to less than 5% of its historic range in one breeding population located in southern Florida. Using radio-telemetry data from 87 prime-aged (≥3 years old) adult panthers (35 males and 52 females) during the period 2004 through 2013 (28,720 radio-locations), we analyzed the characteristics of the occupied area and used those attributes in a random forest model to develop a predictive distribution map for resident breeding panthers in southern Florida. Using 10-fold cross validation, the model was 87.5 % accurate in predicting presence or absence of panthers in the 16,678 km^2 study area. Analysis of variable importance indicated that the amount of forests and forest edge, hydrology, and human population density were the most important factors determining presence or absence of panthers. Sensitivity analysis showed that the presence of human populations, roads, and agriculture (other than pasture) had strong negative effects on the probability of panther presence. Forest cover and forest edge had strong positive effects. The median model-predicted probability of presence for panther home ranges was 0.81 (0.82 for females and 0.74 for males). The model identified 5579 km^2 of suitable breeding habitat remaining in southern Florida; 1399 km^2 (25%) of this habitat is in non-protected private ownership. Because there is less panther habitat remaining than previously thought, we recommend that all remaining breeding habitat in south Florida should be maintained, and the current panther range should be expanded into south-central Florida. This model should be useful for evaluating the impacts of future development projects, in prioritizing areas for panther conservation, and in evaluating the potential impacts of sea-level rise and changes in hydrology.

Introduction

The Florida panther (*Puma concolor coryi*) is a subspecies of puma (also called mountain lion or cougar). Pumas were once widely distributed throughout North and South America, but have been extirpated from the eastern United States except for a small breeding population of

Florida panthers in southern Florida (in this paper, we use the term "puma" when referring to the species as a whole and "panther" when referring specifically to the Florida panther subspecies). Panthers, like all pumas, are wide ranging, secretive, and occur at low densities. They require large contiguous areas to meet their social, reproductive, and energetic needs [1], a requirement that is being compromised by rapid development in southern Florida. Panther habitat continues to be lost to urbanization, residential development, conversion to agriculture, and mining [1]. Highways result in loss and fragmentation of habitat, lead to traffic-related panther mortality, and encourage further human development [2]. Urban, suburban, and exurban areas eliminate, fragment, and alter panther habitat and increase the potential for panther-human interactions. The recovery strategy for the Florida panther includes: (1) maintaining, restoring, and expanding the panther population and its habitat in southern Florida; (2) expanding this population into south-central Florida if sufficient habitat exists; (3) establishing at least two additional viable populations within the historic range outside of south and south-central Florida; and (4) facilitating panther recovery through public awareness and education [1]. The keystone to this recovery strategy is the existing panther population in southern Florida. Because habitat loss, degradation, and fragmentation are among the greatest threats to this population, there is a need for land use planning that incorporates panther conservation and recovery.

Several resource selection analyses have been completed to identify habitats selected by panthers in southern Florida. Following the ordering of selection processes suggested by Johnson [3], the majority of these analyses were third order selections (habitat within home ranges) [4–9], 3 were second order selection analyses (home ranges within the range) [6, 7, 10], and only Kautz et al. [7] and Thatcher et al. [10] attempted to analyze the first order selection (range within the region). Kautz et al. [7] identified areas that had been consistently occupied by panthers for 20 years ("Primary Zone"), adjacent areas that would be most likely to be occupied by an expanding panther population ("Secondary Zone"), and areas that would best facilitate dispersal and population expansion north of the Caloosahatchee River ("Dispersal Zone"). Thatcher et al. [10] developed a panther habitat model using the Mahalanobis distance statistic and landscape characteristics within panther home ranges, based on older (mid-1990s) telemetry and landscape data. Since these studies were completed, a great deal of new land use/land cover information and panther telemetry data have become available.

Recovery Action 1.1.4.2. in the Third Revision of the Florida Panther Recovery Plan [1] calls for updating the Kautz et al. [7] map every five years. The objective of this study was to develop a first-order predictive, landscape-scale model based on occurrence data to predict the distribution of Florida panther habitat to meet this requirement. Our study differs from most previous work in that it was intended to examine the large-scale mixture of landscape characteristics where panthers are found, as opposed to distances of panther locations from specific habitat patches, as used in most previous studies. The model will be useful in evaluating the impacts of future development projects, prioritizing areas for panther conservation (e.g., mitigation areas, panther conservation banks, conservation easements, and fee title purchases), identifying areas outside the study area for possible panther reintroductions, and evaluating the potential impacts of sea-level rise and changes in hydrology.

Methods

Study area

The study area (Fig 1a) was located in southwest Florida where the only breeding population of Florida panthers occurs. The study area was designated by drawing an approximate 16-km buffer (roughly the width of an average female home range) around the Primary Zone described by Kautz et al. [7]. This area is bordered on the west and south by the Gulf of Mexico

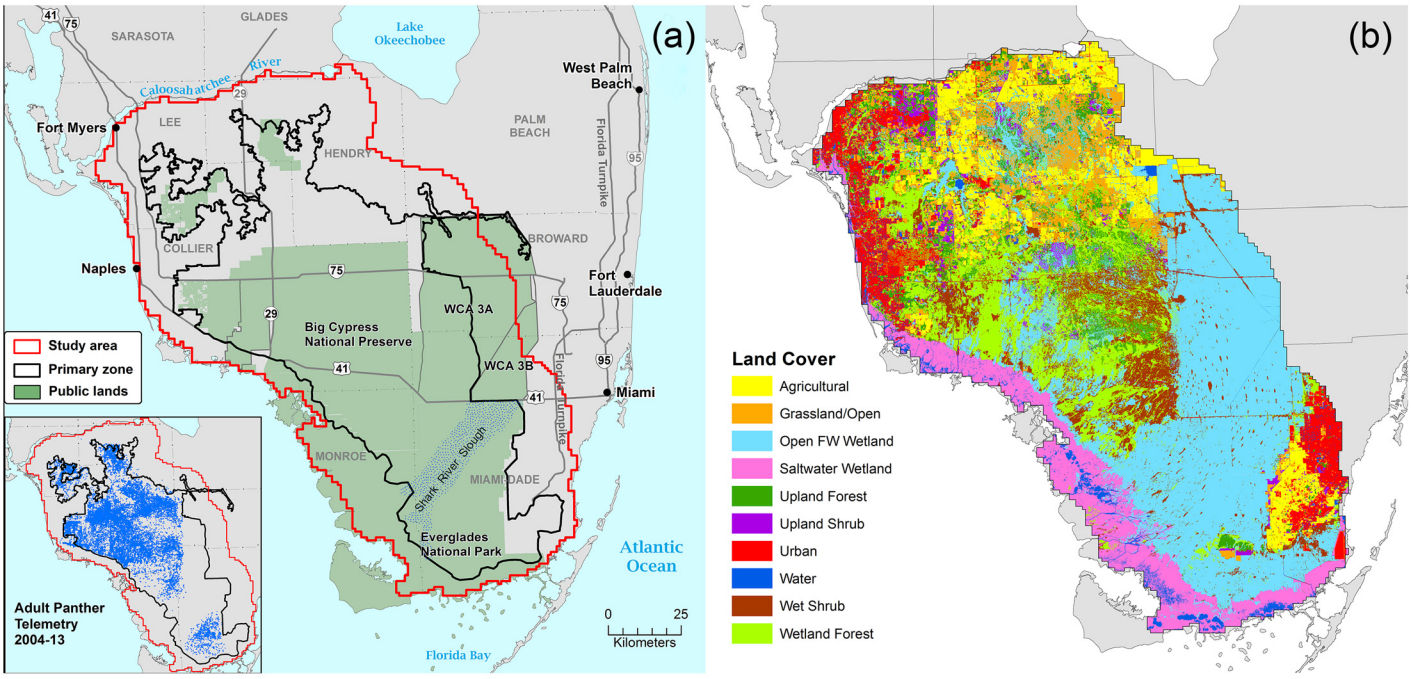


Fig 1. Location of the Florida panther study area and major land cover classes. (a) Main map shows the study area in relation to the Primary Zone, an area of focus by conservation agencies. Inset shows the location of resident adult telemetry points from 2004 through 2013. Breeding panthers do not occur north of the Caloosahatchee River. (b) Geographical distribution of 10 major land cover categories within the study area, used as explanatory variables in the random forest model. Categories were distilled from the Florida Land Use and Cover Classification System (FLUCCS).

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and Florida Bay, on the north by the Caloosahatchee River, and on the east by the 16-km buffer drawn around the Primary Zone boundary. Near-shore islands within the 16-km buffer were excluded. The 16,678 km^2 study area included most of Everglades National Park, Big Cypress National Preserve, Florida Panther National Wildlife Refuge, Fakahatchee Strand Preserve State Park, and other public lands, as well as thousands of acres of undeveloped land in private ownership. It also contained large agricultural and urbanized areas, the latter including Naples, Fort Myers, and the outskirts of Miami. The study area was divided into 16,678 square kilometer grid cells (1.0 km on each side). This grid size was chosen to account for telemetry error (within 124–230 m [4, 8, 11]) and because of our interest in analyzing panther habitat characteristics at the landscape scale.

Panther telemetry data

Methods for collecting telemetry locations have been described elsewhere [4, 8, 11]. Our radiotelemetry dataset consisted of all locations collected from February 1981 through June 2014 (n = 103,828) as part of ongoing research and monitoring by the Florida Fish and Wildlife Conservation Commission and the National Park Service [12]. During this 33-year monitoring program, 228 panthers were radio-collared and each collared individual was relocated 3 times per week, if possible, during the entire time that it wore a functioning collar. During the time frame of this study (2004–2013), an estimated average of 44% (range 26–62%) of the known population of resident adult panthers was collared and monitored each year, based on annual panther counts by McBride et al. [13]. Of all radio-locations collected, 102,818 locations were within the study area. These data were filtered to the period from January 2004 through December 2013 to be contemporaneous with the data for cover type, roads, human population,

and water depth. To avoid including dependent kittens and young transient males, only data for breeding-age panthers (≥3 years old) [14] were utilized. After applying the above filters, only individuals with ≥50 telemetry points were included, in order to reduce the effects of small sample sizes on home range estimates [15]. Home ranges were plotted as 100% minimum convex polygons using the convex hull tool in ArcMap version 10.2.2 (ESRI, Redlands, CA). The final filtered dataset consisted of 87 adult panther home ranges (52 females and 35 males) comprising 28,720 telemetry locations (18,124 for females and 10,596 for males) (Fig 1a). Because of the large number of animals monitored, the frequency of relocations, and the fact that panther home ranges are large and overlap extensively, we felt that areas used and avoided by adult panthers during the 10-year time frame of this study could be accurately identified using these locations within a small margin of error (see below). Therefore, grid cells containing at least one telemetry point from the filtered dataset were classified as "present;" all others were classified as "absent."

Landscape variables

Land cover types. Vegetation cover types and land uses were obtained from the Florida Land Use and Cover Classification System (FLUCCS) Geographic Information System (GIS) database [16]. There were 76,609 FLUCCS polygons in the study area representing 124 different vegetation cover/land use classes. We combined these into 10 major land cover categories (Table 1). Categories were selected based on our judgment of characteristics important to panthers, such as amount of cover provided (forest, shrub, open), human disturbance (urban, agriculture), or cover types known to be avoided by panthers (open water, saltwater wetlands). Percentages of each of the 10 major land cover categories in each grid cell were calculated using the area tool in ArcMap, and used as explanatory variables in the model.

Other landscape variables. The primary prey species of the Florida panther in southern Florida are white-tailed deer (*Odocoileus virginiana*) and wild hogs (*Sus scrofa*) [17, 18]. The white-tailed deer is an "edge species" and the amount of edge affects both the quality and quantity of deer [19, 20]. Lacking spatial density data for these species, we estimated the amount of forest edge in each grid cell as a possible measure of prey availability (i.e., panther hunting habitat) [21, 22]. Using the 10 cover types described above, we defined forest edge as the line between forest polygons and other cover types considered suitable to form a natural edge.

Table 1. Land cover categories used as explanatory variables and their extent in the study area.

Land cover category	Description	Area (km^2)	Percent of study area
Open fresh- water wetland	Freshwater marsh, sawgrass, and wet prairies	5715.9	34.3
Wetland forest	Includes cypress strands and domes, hydric pine flatwoods, cypress-mixed hardwoods, bay swamps, mixed wetland hardwoods, cypress-pine-cabbage palm, and wet melaleuca	2457.2	14.7
Agriculture	Croplands including row crops, field crops, sugar cane, citrus groves, ornamentals	1610.1	9.7
Saltwater wetland	Mangrove swamps, saltwater marshes, and tidal flats	1474.8	8.8
Grassland	Includes improved and unimproved pastures, and herbaceous (dry) prairies	1274.5	7.6
Wet shrub	Mixed wetland shrubs	1360.2	8.2
Urban	Residential, developed, industrial, commercial, or disturbed lands	1158.1	6.9
Upland forest	Includes pine flatwoods, upland hardwood forest (e.g., oak-cabbage palm), and hardwood-coniferous mixed forest	895.1	5.4
Open water	Lakes, reservoirs, rivers, bays, canals	379.4	2.3
Upland shrub	Shrub and brushland, palmetto prairies, and mixed rangeland	351.2	2.1

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Under this definition, polygons classified as urban or agricultural were not considered to be edge-forming. Grasslands and prairies, bodies of fresh water, shrubs, and open freshwater wetlands were counted as edge-forming where they were adjacent to forest. In addition, deer in Florida preferentially use areas where upland forest is adjacent to swamps [23]. Therefore, the edge between upland forest and wetland forest polygons was also counted as forest edge.

We estimated average wet and dry season water depths for the period 1999–2009 for each grid cell of the study area. The wet season was defined as June through October and the dry season as November through May. The value of the water depth variable represented a long-term average water depth for an entire grid cell. A negative depth implied that most of the water table was below the surface, but did not necessarily indicate a completely dry (upland) cell. Similarly, positive values suggested that most, but not necessarily all, of a cell was wetland.

Creating a water depth surface involved subtracting ground surface elevation from a corresponding stage elevation (water level). Daily mean surface water and groundwater data were acquired from the databases of Everglades National Park [24] and the South Florida Water Management District [25]. Gauging stations both within and exterior to the study area were included to minimize boundary or edge effects when generating seasonal water depths. Ground surface elevations for the southeastern portion of the study area were obtained from the U.S. Geological Survey High Accuracy Elevation Data project (HAED) [26]. Topography data for the northwestern portion of the study area were obtained from the U.S. Army Corps of Engineers [27]. Vertical accuracy ranged from +/- 7.5 to +/- 15.0 cm, depending on the source. Generating the average seasonal water depth required interpolating the stage value between the gauging stations, relating each stage value to a corresponding ground surface elevation, subtracting the ground surface elevation from the corresponding stages, and averaging the multiple water depths in each grid cell to produce a single value for each cell (see S1 Text for details).

We calculated average human population density for each cell in the study area using census block data from the 2010 U.S. Census [28]. Census blocks were intersected with the study area grid to obtain an area-weighted average human density for each cell. We calculated the total length of roads in each cell based on the 2011 TIGER/Line shapefiles of Florida roads [29]. Roads classified as four-wheel drive, bike trails, or pedestrian trails were excluded, because we felt that these did not represent enough disturbance to impact panther use of an area.

Modeling approach

We used random forest (RF) modeling because of demonstrated advantages of RF over other types of statistical classifiers that include: (1) very high classification accuracy; (2) a method of ranking variables according to their importance; (3) the ability to model complex interactions; and (4) RF makes no assumptions about the distribution of predictor or response variables [30]. We tested many different modeling techniques before selecting RF. These included logistic regression, mixed effects logistic regression, generalized additive models (GAM), negative binomial, and Maxent. We also tested both presence-absence and used-available (resource selection function) designs. Although all of these methods produced similar results, we found RF to be more accurate at predicting known panther locations, to be more straightforward to use, and to provide more useful information than the other methods. Because the emphasis of our modeling effort was on prediction rather than explanation, we felt that predictive accuracy was the most important factor on which to base our selection of a modeling technique.

Our model was based on a presence-absence design, in which grid cells lacking a telemetry location were assumed to be absences. Generally, this assumption is potentially invalid because the species could have occurred at the location during the study but was not detected, thus these locations are often referred to as "pseudo-absences" [31]. However, we considered our

panther dataset to be valid (i.e., true absences) and the use of an area by resident adult panthers without being detected highly unlikely. Our reasons for this included the large number of animals monitored (228 total, 87 in this study), long duration of the monitoring program (33 years, 10 years in this study), high frequency of monitoring flights (3 times per week), large size of the cells (1.0 km^2), and the fact that panther home ranges overlap extensively. The latter is important because, although not all panthers were radio-collared (only about half during the time frame of this study), it is likely that all areas used by panthers contained some collared individuals. In addition, the total area occupied by resident adult panthers in south Florida is relatively small, and the entire area is surveyed each year by expert trackers using hounds (e.g., [13]). Therefore, we believe that a presence-absence study design is appropriate in this case.

The model was run using the randomForest package in R (version 3.1.1, www.r-project.org). The type of random forest was classification, with 500 classification trees generated at each run, and 3 variables tried at each split. The model included 15 explanatory variables: 10 land cover categories (see Table 1), plus forest edge, dry season water depth, wet season water depth, human population density, and road density. Male and female panthers do not select significantly different habitat [8, 9], and our preliminary modeling showed that building separate models for males and females did not improve model accuracy. Therefore, the model was built using combined male and female occurrence data. Model-predicted probabilities of presence (P) were used to classify each grid cell as present (i.e., adult panther habitat) or absent (i.e., non-habitat). We classified a grid cell as "present" when the model-predicted probability of presence was ≥ 0.338, because at this cutoff point model sensitivity and specificity were equal. Selecting a cutoff threshold where sensitivity equals specificity tends to approximate the observed prevalence of the species in the study area [31].

The RF model was validated using 10-fold cross validation [32]. The training dataset was randomly divided into 10 equal-sized groupings. Nine of the groups (90%) were then combined and used to construct a model, which was used to classify the remaining group. This process was repeated ten times until all of the groups had been classified. Accuracy metrics from this process were compared with the out-of-bag accuracy of the original model. Accuracy metrics calculated included PCC (percent of cells correctly classified), sensitivity (proportion of "present" cells correctly classified), specificity (proportion of "absent" cells correctly classified), kappa (a measure of improvement of classification accuracy above that expected by chance), and AUC (area under the receiver operating characteristic curve) [31].

Sensitivity analysis consisted of plotting the model's response to changes in one predictor while holding the other predictors constant, using the Plotmo library (version 2.2.1) in R. Plotmo's default value for the fixed variables is the median [33]. However, this commonly used approach in which one variable is changed while the others are held at a single value (usually the median or mean) would be inadequate with our model, because some variables had different effects depending on the starting point. For example, increasing some variables might have a negative effect in a landscape that was already good habitat, but a positive effect in poor habitat. Also, assigning all variables a median or mean value was not realistic, because in no case could all variables in a cell be at their central tendency at the same time. In good habitat, beneficial landscape characteristics are high while detrimental ones are low, and vice versa for poor habitat. Therefore, model response to changes in each variable was examined in narrow ranges of P values corresponding to excellent panther habitat ($P = 0.85–0.95$), medium habitat ($P = 0.45–0.55$), and poor habitat ($P = 0.05–0.15$). The subset of observed variable values producing P values within each range was determined. Averages were calculated for each variable for each range, and these served as the fixed value for sensitivity analysis. This allowed for use of realistic combinations of variable values as opposed to simply using median values.

We calculated the mean probability of presence for each panther home range from the *P* values of the grid cells contained within the home range. Mean probability of presence in home ranges were compared using the Wilcoxon rank sum test.

The randomForest package in R provides two measures of variable importance: (1) mean decrease in model accuracy, determined by randomly permuting one predictor variable at a time and determining the resulting loss in model classification accuracy, and (2) the Gini importance, calculated as the mean decrease in node impurity attributed to each predictor variable [34, 35]. Although both methods are presented here, the former is considered to be the more advanced method [34].

Results

Landscape variables

GIS analysis of land cover types showed the study area to be predominantly wetlands (Table 1, Fig 1b). Open freshwater wetlands (mostly sawgrass and freshwater marsh) were by far the largest land cover category, representing more than one third of the study area. Wetland forest and wet shrub lands were also important categories concentrated mainly in the center of the study area. Saltwater wetlands, mainly mangrove swamps, bordered the study area on the east and south. Altogether, wetlands made up 66.0% of the study area. In contrast, natural or semi-natural upland areas (upland forest, shrub lands, and grasslands) comprised only about 15.1% of the total. Upland forest, comprising only 5.4%, was scattered in small patches throughout the northern half of the study area. Urban areas predominated in the extreme northwestern (Naples-Ft. Myers area) and southeastern (Miami area) parts of the study area. Agriculture occurred mainly in the northern one-third of the study area, although there was also a large concentration of crop areas on the eastern border of Everglades National Park.

The amount of forest edge in each cell ranged from essentially none in the vast sawgrass wetlands, coastal areas, and agricultural areas, to 17 km per cell in the center of the study area (Fig 2a). Forest edge was not well-correlated ($R^2 = 0.42$) with the total amount of forest cover in a cell, i.e., some areas with low amounts of forest cover might have large amounts of edge, and vice versa.

Average wet and dry season water depths in the study area ranged from -5.2 m (below ground surface) up to +2.6 m above ground. Water depths during the wet season averaged about 0.3 m greater than during the dry season. Wet season and dry season water depths were highly correlated ($R^2 = 0.98$). Nevertheless, we chose to keep both variables in the model because removing one of them resulted in a slight loss in model accuracy. The driest areas occurred in the northern and extreme southeastern portions of the study area, corresponding with the well-drained agricultural and residential land uses in those areas. The highest water depths occurred in the Water Conservation Areas, the Shark River Slough in Everglades National Park, and the coastal bays of southwestern Florida. The center of the study area had mostly intermediate water depths (Fig 2b).

Human population density ranged from uninhabited throughout much of the study area, to upwards of 8,000 people per grid cell (km^2) in the densely populated areas in the northwest and southeast corners of the study area (Fig 2c). Road density showed a similar pattern, ranging from roadless in much of the study area to over 18 km of roads per grid cell in some urban areas. However, even the most undeveloped part of the study area is bisected by several major highways including Interstate 75, US 41, and US 29 and also contains many minor roadways (Figs 1a and 2d).

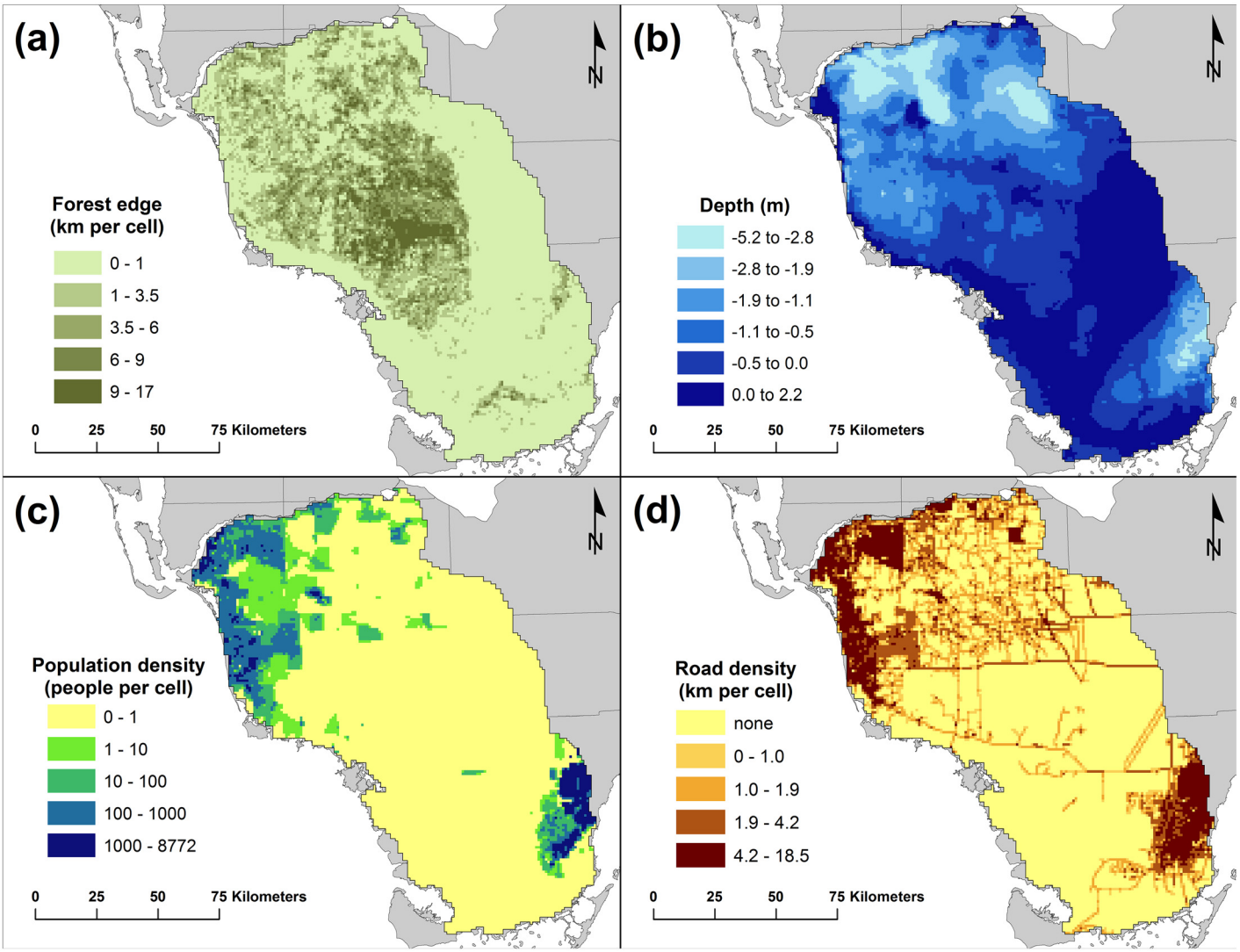


Fig 2. Landscape characteristics within the study area used as explanatory variables. (a) amount of forest edge (km/km^2); (b) average water depths during the dry season (m); (c) area-weighted average human population density (people/km^2); (d) road density (km/km^2).

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Model results

Probabilities of panther presence for each grid cell predicted by the model were plotted on a map of the study area (Fig 3a). Adult panther habitat (therefore breeding habitat) was defined as those grid cells classified as "present", i.e., having a probability of presence of adult resident panthers greater than 0.338 (Fig 3b). Using this cutoff point, 5579 km^2 of breeding habitat were identified within the study area. Areas of high probability of panther presence were, for the most part, concentrated in a single large contiguous block within the central and north-western part of the study area. A separate, smaller area of predicted panther use occurred in the southwestern portion of the study area within Everglades National Park. Breeding panther presence was not likely in the Water Conservation Areas, Shark River Slough, or the coastal wetlands of southwest Florida.

Accuracy. The RF model accurately predicted the presence or absence of adult panthers in the study area. Using a cutoff probability of 0.338, the RF model had an overall accuracy (PCC)

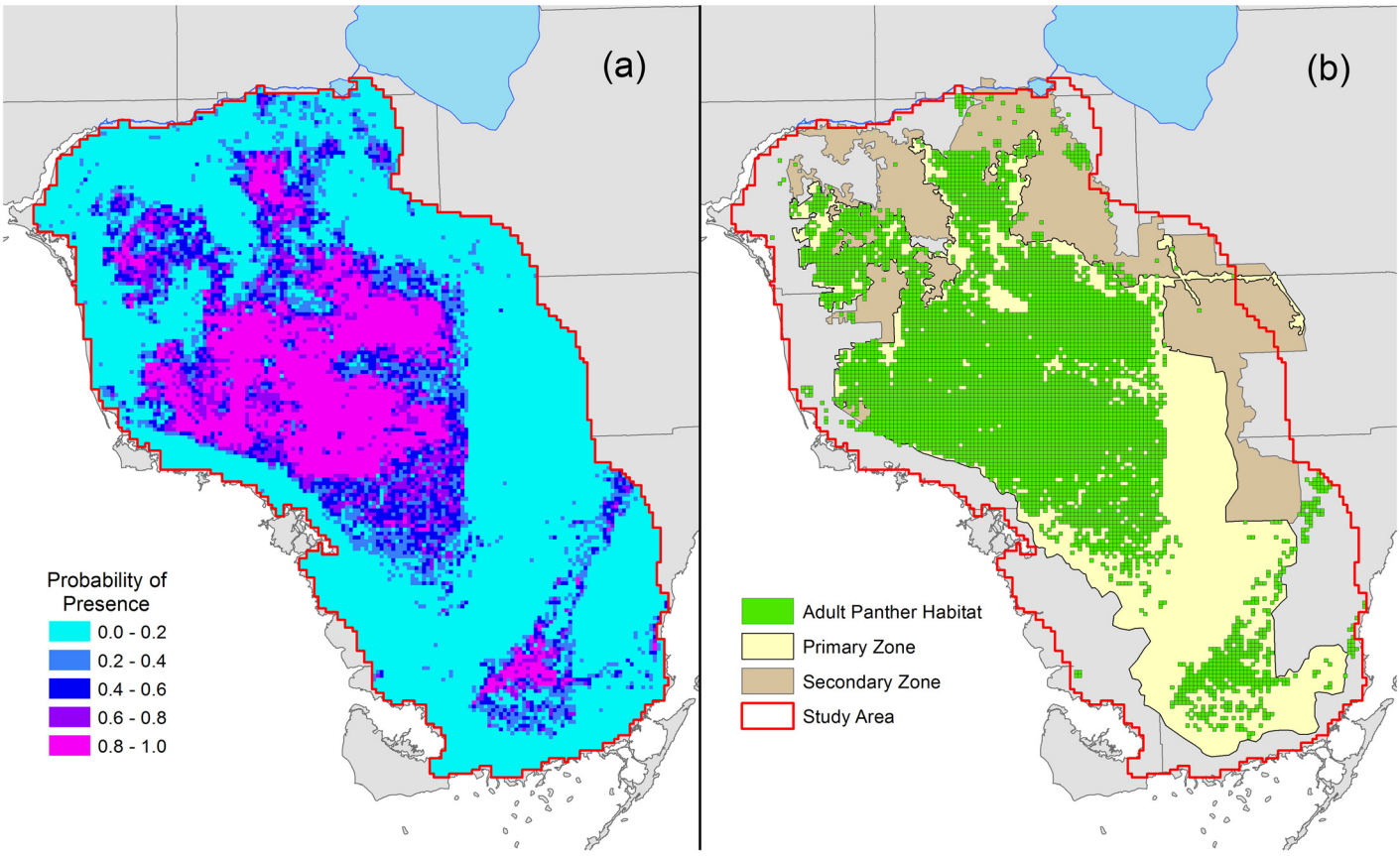


Fig 3. Probability of presence and adult panther habitat. (a) Probability of presence (*P*) of resident adult panthers throughout the study area in south Florida, as predicted by the random forest model. (b) Grid cells with $P > 0.338$ are considered to be adult (breeding) panther habitat. Adult panther habitat is shown in relation to the Primary and Secondary Zones.

doi:10.1371/journal.pone.0133044.g003

of 87.7% of cells correctly classified, based on out-of-bag error rates (Table 2). By simple resubstitution of the training data, the RF model correctly classified 99% of the grid cells. Sensitivity and specificity were both equal to the PCC at this cutoff point. The kappa statistic (0.711) and AUC (0.95) both indicated high model accuracy in predicting panther presence within the study area. Ten-fold cross validation accuracy was nearly identical to out-of-bag accuracy for all metrics (Table 2).

Variable importance. The 15 explanatory variables are ranked from highest to lowest importance in Fig 4. Human population density stood out as the most important variable affecting model accuracy, followed by wetland forest. The amount of wetland forest and forest

Table 2. Accuracy metrics for the Florida panther habitat model.

Method of Calculation	PCC[a]	Specificity	Sensitivity	Kappa	AUC[b]
resubstitution	98.7	98.5	99.1	0.97	1.00
out-of-bag	87.7	87.6	87.7	0.71	0.95
10-fold cross validation	87.5	87.4	87.7	0.71	0.95

[a]Percent correctly classified.

[b]Area under the receiver operating characteristic curve.

doi:10.1371/journal.pone.0133044.t002

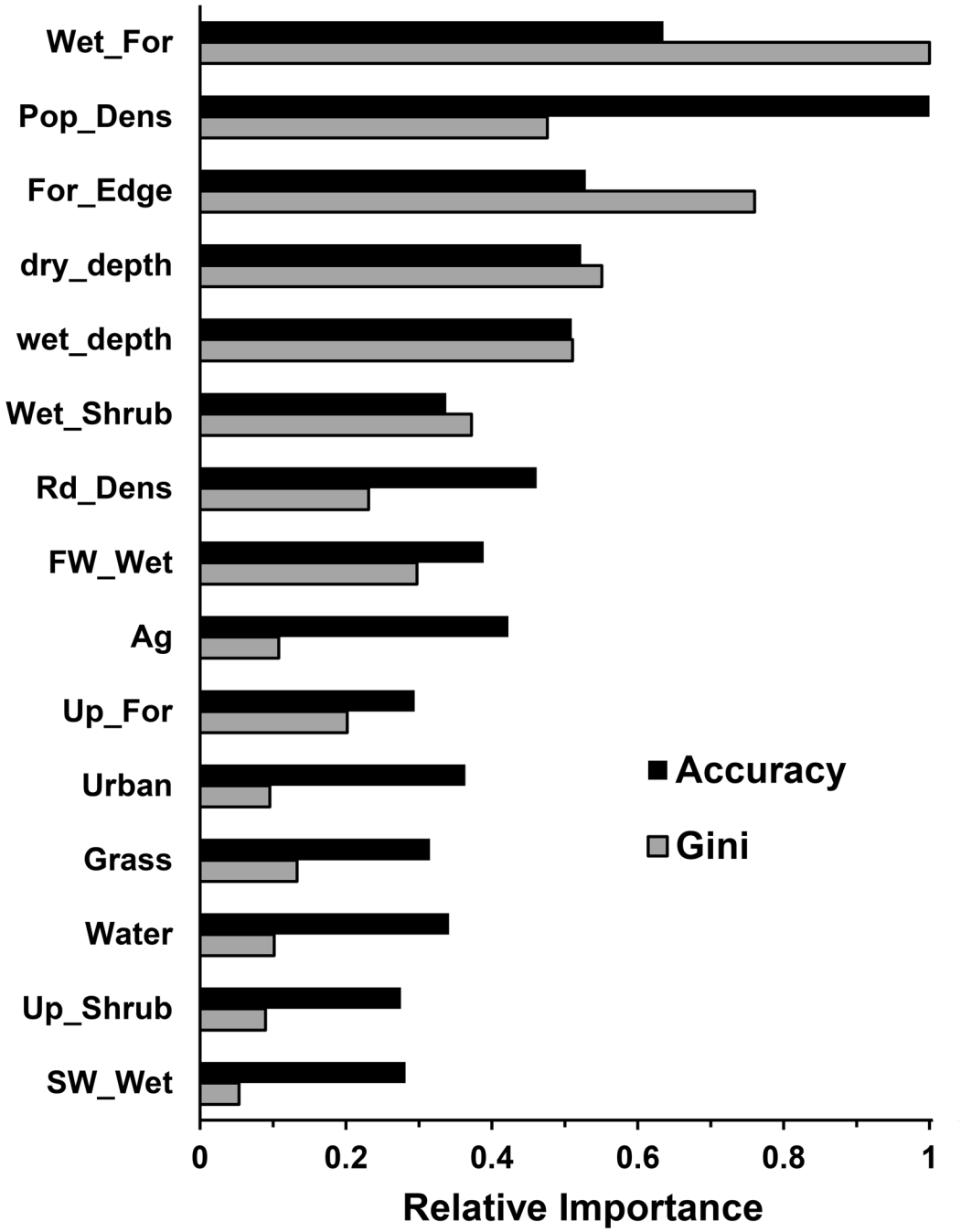


Fig 4. Variable importance. Importance was calculated based on mean decrease in model accuracy (black bars) and mean decrease in Gini index (gray bars). Importance scores were standardized relative to the most important variable by each method. Variables are ranked from highest to lowest importance, based on combined scores from the two methods. Wet_For = wetland forest, Pop_Dens = human population density, For_Edge = forest edge, dry_depth = average dry season water depth, wet_depth = average wet season water depth, Wet_Shrub = wetland shrub, Rd_Dens = road density, FW_Wet = open freshwater wetlands, Ag = agricultural, Up_For = upland forest, Grass = grasslands/dry prairies, Water = open water, Up_Shrub = upland shrub, SW_Wet = saltwater wetland.

doi:10.1371/journal.pone.0133044.g004

edge were the most important variables according to the Gini index. The top five variables were the same by both importance measures, although in different order. Using the combined relative importance from the two methods, the order of variable importance was wetland forest > human density > forest edge > dry season water depth > wet season water depth. It is surprising that both water depth variables were included in the top five, even though they were highly collinear. Wetland shrubs, road density, freshwater wetlands, and agricultural use were of medium importance relative to the other variables. The upland cover types (upland forests, grasslands, and upland shrubs) did not score as highly in importance as expected. Along with urban, open water, and saltwater wetlands, these were among the least predictive variables. There was greater variation in importance among the variables based on the Gini index compared with model accuracy. According to the accuracy analysis, all variables contributed somewhat to model accuracy.

Sensitivity analysis. Sensitivity analysis results for six of the most important predictor variables are shown in Fig 5. Small increases in human density were predicted to have a pronounced negative effect on the probability of panther presence (*P*) (Fig 5a). In excellent (high *P* value) panther habitat, when human density increased from 0 to 10 people per km^2, the model predicted a 0.3 decrease in the probability of panther use. At 50 people per km^2, *P* decreased by almost 0.5. Likelihood of use by panthers continued to decrease up to about 140 people per grid cell, at which point further increases in human density had little effect. The human density variable had a similar but less pronounced effect on model outputs in lesser quality habitat. A related variable, road density was another strong negative predictor of panther presence. In medium quality habitat, a cell with no roads was predicted to be about twice as likely to support adult panthers than a cell with 5 km of roads (Fig 5b). Road density had its maximal effect at the middle ranges of *P*, but the effect was similar in all ranges. Since human population and roads generally occur together, the combined impact of increased roads and increased population density in residential developments, even low density developments, is predicted to be large.

The probability of panther presence was positively related to amount of forest edge, peaking at about 8 km of forest edge per cell (Fig 5c). Increasing forest edge from 0 to 8 km produced a corresponding increase of 0.36 in *P* in good quality panther habitat. The effect was similar but less pronounced in low *P* ranges. Beyond 8 km of forest edge, no further increase in *P* was observed. Increasing the amount of wetland forest cover in low quality habitat caused a steady increase in *P* from 0.21 up to 0.47 (Fig 5d). The increase was fairly constant throughout the entire range of forest coverage from 0 to 100%. The effect was similar at higher *P* ranges but began to drop off at about 80%.

Agricultural uses other than pasture within a grid cell were predicted to reduce its suitability for panthers, particularly in otherwise good (high *P*) habitat (Fig 5e). Panther presence was most likely when the average water level was just below ground surface. In high quality habitat, *P* was highest when the average water depth in the dry season was between -2 m and 0 m, and dropped off sharply on either side of this range. Peak probability of presence occurred at -0.6 m average water depth (Fig 5f). Average wet season water depths showed a similar probability profile. The other variables in the model had less profound or inconsistent effects. For example, increasing amounts of shrub (both upland and wetland) were predicted to have a positive effect on poor habitat and a negative effect on good habitat. Upland forest had a consistent positive effect but the maximum gain in *P* was less than 0.1.

The average probability of presence for each of the 87 panther home ranges was between 0.35 and 0.96, with a median value of 0.81. Except for one male with an unusually large home range, no panther home range had an average *P* below 0.4. Female panthers selected slightly higher quality habitat than males ($p<0.01$, Wilcoxon rank sum test) (Fig 6).

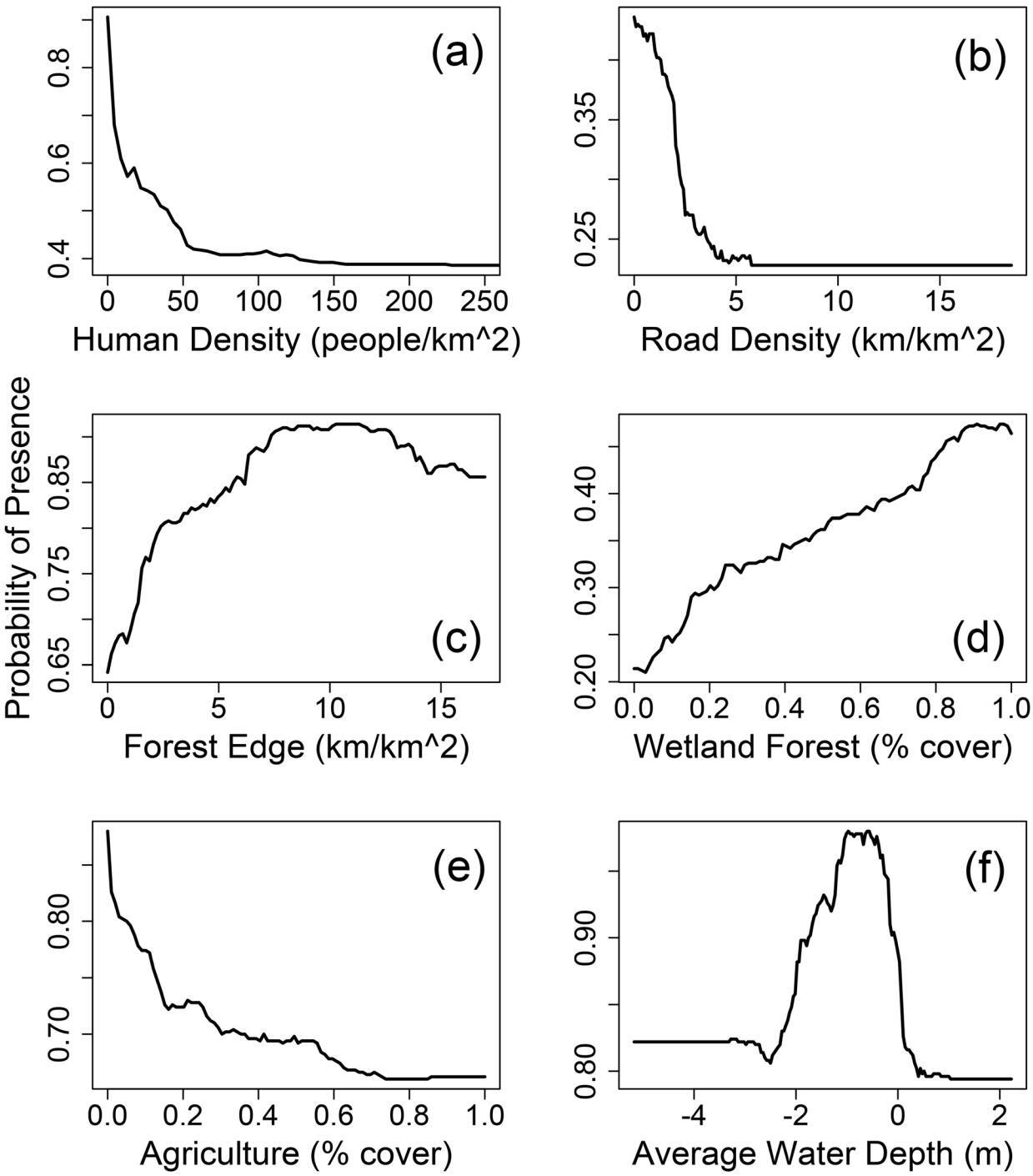


Fig 5. Sensitivity of model predictions (probability of presence, *P*) to changes in selected explanatory variables. (a) human population density; (b) road density; (c) forest edge; (d) wetland forest cover; (e) agriculture (other than pasture); (f) average dry season water depth. The response to each variable was examined at high, medium and low ranges of *P*. The *P* range where the variable had its largest effect is shown.

doi:10.1371/journal.pone.0133044.g005

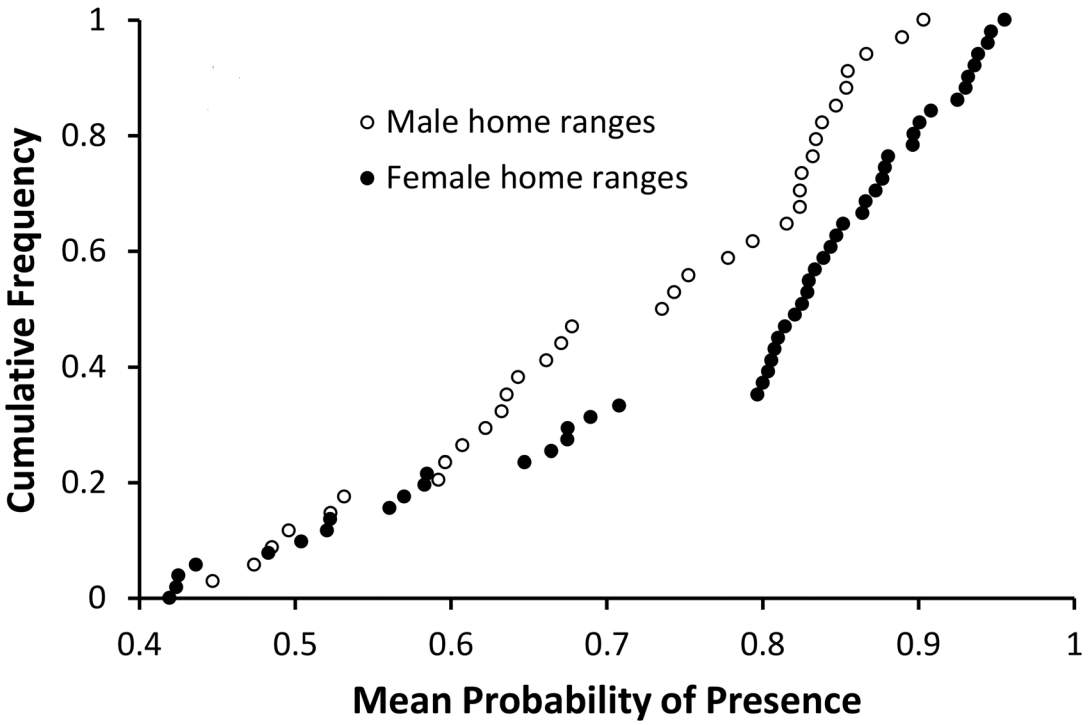


Fig 6. Average probability of presence in Florida panther home ranges. Males (open circles): median = 0.74, n = 35; females (solid circles): median = 0.82, n = 52. One male home range (average *P* = 0.35) is not shown.

doi:10.1371/journal.pone.0133044.g006

Discussion

Panther habitat

The most important factors determining panther presence or absence in a given cell were (1) the amount of forest cover, (2) human population density, (3) the amount of forest edge, and (4) the average water level (Fig 4). To our knowledge, this is the first model to demonstrate the importance of forest edge and water depth in panther habitat use, although other studies have examined related factors such as forest patch size [5, 7, 9, 36] and water regime (duration of flooding) [10]. A more widely applicable but still accurate model could probably be built based on the above four factors alone. However, with RF modeling when the objective is accurate prediction within the region, as was the case here, there is no compelling reason to reduce the number of variables. Our analysis showed that all variables made some contribution to model accuracy, however slight in some cases.

In the western states, the distribution of cougars is influenced by the amount of topographic heterogeneity and the quantity of forested cover [37], and in south Florida forested habitats have been shown to be important to panthers [4–9, 38], although it is topographically flat [39]. Maehr and Cox [5] and Maehr and Deason [36] asserted that Florida panthers used only forest patches >500 ha in size. However, Kautz et al. [7] and Onorato et al. [9] showed that forest patches of all sizes are used. Results from our study are consistent with the latter in that, related to forest patch size, the amount of forest edge was a highly predictive variable of adult panther presence. Studies by Holmes and Laundré [21] and Laundré and Loxterman [22] suggested that forest edges provide the necessary structural components for successful hunting by pumas, and Laundré and Hernández [40] concluded that use of edge areas allowed a puma to observe deer out in the open and to ambush deer as they moved between open and forest patches.

Other studies have suggested that edge might be an important factor in panther habitat selection [5, 9]. Onorato et al. [9] reported often encountering panther kills in forests adjacent to more open habitats. We hypothesize that the importance of forest edge to panthers in south Florida is primarily as hunting and feeding habitat.

The extent of upland forest in our study area (895 km^2) was small, and 333 km^2 (37%) of that occurred outside the Primary Zone, in isolated patches surrounded by residential or agricultural land cover types. In addition, many areas used intensively by panthers within the Primary Zone contained very little land cover classified by FLUCCS as upland forest. Therefore, our model did not find upland forest cover to be a major factor in predicting presence of adult panthers on a landscape scale. However, upland forests ranked high in habitats selected *within* panther home ranges [6–9]. Benson et al. [41] found that panthers tended to select upland hardwoods, pinelands, and mixed wet forests for den sites. They suggested that the use of upland forests for denning may be a behavioral mechanism to maximize offspring survival in the flood-prone landscape of south Florida. However, panthers also selected mixed wet forests as den sites, did not avoid cypress swamps, and even denned in freshwater marsh [41]. Previous studies also found that panthers selected cypress swamps [6, 7]. Therefore, the importance of upland forest in panther habitat selection remains unclear, but it is obvious that forest cover in general is an essential element of panther habitat.

A consistent characteristic of panther den sites was extremely dense understory of saw palmetto (*Serenoa repens*), thickets, shrubs, or vines [17, 41]. Benson et al. [41] suggested that hydrology and resulting understory conditions in upland habitat types at least partially explain why pinelands and upland hardwoods were strongly selected by females as den sites. Our model showed that hydrology is indeed one of the most important factors determining the presence of adult panthers. The model indicated that the probability of adult panther presence is greatest when average water levels are just below the surface and drops off rapidly as water depths increase or decrease. Conditions would probably be optimal for the growth of dense understory vegetation when water depths are just below the surface. As water depths increasingly fall below the surface, however, understory vegetation may become less dense and, therefore, less usable to panthers. In addition, the areas within our study area where water depths were well below the surface were often associated with agricultural and urban land cover types.

Human land uses avoided by panthers on the landscape scale are also important in predicting panther presence or absence. Our model indicated that urbanized areas (as represented by human population and/or road density) were strong negative predictors of adult panther presence. The probability of adult panther presence dropped off precipitously as the number of people and roads per unit area increased (Fig 5a and 5b). The conversion of land for urban or agricultural uses eliminates, fragments, and alters panther habitat. Research by Burdett et al. [42] indicated that pumas avoided intensively developed suburban or urban areas, showed a negative response to exurban development (but individual responses were variable), and responded neutrally to rural development (again, individual responses were variable). In our model, agriculture (excluding pasture and rangelands) was of medium importance as a variable and had a pronounced negative effect on panther habitat.

Comparison with previous landscape model

The boundary of the panther Primary Zone as drawn by Kautz et al. [7] was supported by our model, with a few notable exceptions. The Water Conservation Areas on the east side of the Primary Zone, the Shark River Slough in Everglades National Park, and the long, narrow corridor extending east from the Primary Zone and bisecting the Secondary Zone, do not contain adult panther habitat according to the probabilities assigned to those areas by our model (Fig

3b). These areas probably are used by transient males and fit more closely to the definition of the Secondary Zone [7]. The Shark River Slough portion, although not breeding panther habitat, is nevertheless an important connection between the main subpopulation to the north and the smaller Everglades subpopulation to the south, and thus represents an area that may be essential to panther survival and recovery. This area is currently protected within Everglades National Park, although rising water levels in this region could sever connections between the two subpopulations.

The RF model indicates that 5579 km^2 of suitable adult panther habitat remain in southern Florida. Of this, 1399 km^2 (25%) is in non-protected private ownership. Of the available breeding habitat, approximately 5232 km^2 (93.8%) is contained within the Primary Zone defined by Kautz et al. [7], and 211 km^2 (3.8%) is contained within their Secondary Zone. The remaining lands classified as adult habitat by our model (135.8 km^2, 2.4%) are disjunct patches outside the Primary and Secondary zones and are seldom used by panthers, except for transient males (Fig 3b).

The Secondary Zone of Kautz et al. [7] is of little value to breeding panthers in its current state (Fig 3). Our model predicted an overall average probability of use of 0.086 for the Secondary Zone, compared with 0.455 for the Primary Zone. The former is much less than the minimum average value of a panther home range (0.352), suggesting that an adult panther could not establish a home range there. Kautz et al. [7] estimated that the effective area of the Secondary Zone is about 34.5% of that in the Primary Zone. In contrast, our model identified only 211 km^2 of potential adult habitat in the Secondary Zone, compared with 5232 km^2 in the Primary Zone (4.0%). Although containing little suitable habitat for adult, breeding panthers, the Secondary Zone is still important as a refuge for transient, non-breeding panthers. It also provides crucial connectivity to unoccupied areas and has the potential to be restored to more productive habitat.

Our study suggests that changes are needed to current conservation policies and practices for the Florida panther, especially with regard to methodologies for calculating habitat needs and impacts from development. For example, the U.S. Fish and Wildlife Service (USFWS) Panther Habitat Assessment Methodology (see Biological Opinions issued by USFWS since 2003 [43]) under-values the remaining adult habitat by overestimating the value of lands outside the Primary Zone. The USFWS methodology currently assumes lands in the Secondary Zone have a 69% equivalency with those in the Primary Zone. Our model shows that these lands, and a large portion of the Primary Zone itself, are of little value to support a breeding population of Florida panthers. As a result, compensation in the form of habitat protection required by the agency to offset losses due to development has been largely inadequate, because our study suggests that the amount of habitat remaining has been significantly overestimated. Even if all of the adult habitat within southern Florida had the maximum adult density of 2.80 panthers per 100 km^2 as reported in Quigley and Hornocker [44], the total population would remain below 240 adults and subadults, a population size thought to be necessary to maintain genetic viability and a high probability of persistence [7]. Coupled with our findings, this indicates that there is not enough adult panther (breeding) habitat remaining in south Florida to maintain one genetically viable population.

Conclusions

Our study has attempted to identify the remaining adult (breeding) habitat for the Florida panther south of the Caloosahatchee River. This population may already be at or close to carrying capacity, yet the panther population is probably below what is required for long-term genetic viability. Therefore, protection of the remaining breeding habitat in south Florida is essential

to the survival and recovery of the subspecies and should receive the highest priority by regulatory agencies. Further loss of adult panther habitat is likely to reduce the prospects for survival of the existing population, and decrease the probability of natural expansion of the population into south-central Florida. This model is suitable for use by conservation agencies attempting to identify and protect the most valuable panther habitat in south Florida. Because it assigns a numerical "score" (probability of presence) to each square km in the study area, it will help managers to rank and prioritize those areas most important to panther survival. It will also be useful for calculating compensation for the inevitable habitat losses that will occur. One of the strong points of the model is its regional specificity for the unique south Florida landscape. However, it should be used with caution outside south Florida, due to the dominance of wetland habitats there compared to other areas.

Supporting Information

S1 Table. Landscape Data for South Florida Study Area.
(CSV)

S1 Text. Detailed Water Depth Methodology.
(DOCX)

Acknowledgments

Panther telemetry data were provided by the Florida Fish and Wildlife Conservation Commission and the National Park Service. We thank D. Onorato, D. Land, D. Shindle, P. Halupa, M. Knight, K. Dryden, D. Hartley, C. Aubrey, and L. Williams for their helpful comments on earlier drafts of this manuscript. T. Robinson and T. Edwards provided expert technical advice on the random forest models. We thank J. Cooke and S. Glass for GIS assistance. This article is dedicated to the memory of Freddie James, outstanding hydrologist and friend.

Disclaimer: The findings and conclusions in this article are those of the authors and do not necessarily represent the views of the U.S. Fish and Wildlife Service.

Author Contributions

Conceived and designed the experiments: RAF RCB. Performed the experiments: RAF. Analyzed the data: RAF RCB BEW FEJ. Wrote the paper: RAF RCB FEJ. GIS analysis: BEW RAF. Hydrological calculations: FEJ.

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From: Phillips, Catherine
To: Jack Arnold
Subject: Fwd: [EXTERNAL] Re: Follow-up - panther science, panther methodology, and regulatory decisions
Date: Monday, October 21, 2019 12:09:11 PM

Science integrity discussion I told you about a couple of weeks ago. Did you have a chance to talk with Rob about it or do you want me to?

C

Catherine T. Phillips, Ph.D.
Assistant Regional Director, Ecological Services
South Atlantic-Gulf and Mississippi Basin
Unified Regions
U.S. Fish and Wildlife Service
1875 Century Boulevard
Atlanta, GA 30345
404-679-7085
850-348-6497 (cell)

---------- Forwarded message ---------
From: **Scott, David** <david_scott@fws.gov>
Date: Mon, Oct 21, 2019 at 1:19 PM
Subject: Fwd: [EXTERNAL] Re: Follow-up - panther science, panther methodology, and regulatory decisions
To: Leopoldo Miranda <leopoldo_miranda@fws.gov>, Catherine Phillips <catherine_phillips@fws.gov>, Williams, Larry <larry_williams@fws.gov>

FYI ... this is what I sent to Paula recently and her reply today. I suggest Larry Williams brief me on progress and any updates every 2-3 weeks ... thanks!

DAVID P. SCOTT
Science Integrity Officer
U.S. Fish & Wildlife Service (SA-HQ)
Ottawa National Wildlife Refuge
14000 West State Route 2
Oak Harbor, OH 43449
612-597-2131
David_Scott@fws.gov



---------- Forwarded message ---------
From: **Paula Halupa** <halupap@comcast.net>
Date: Mon, Oct 21, 2019 at 12:49 PM

Subject: [EXTERNAL] Re: Follow-up - panther science, panther methodology, and regulatory decisions
To: Scott, David <david_scott@fws.gov>

David,

Thank you for the quick update and for your actions taken. That is a good start. I would appreciate any additional details you can share.

Please let me know what concrete actions these leaders will be taking to ensure that the best available science on panthers and panther habitat will be used by the SFESO and the RO in its regulatory programs (i.e., section 7 and section 10). What changes will be made to the regulatory programs? How will leaders ensure that the current and future decisions are consistent with science and the ESA?

Also, please let me know the timeframe for the actions to be taken.

Thanks very much for your help.

-Paula

> On October 11, 2019 at 1:22 PM "Scott, David" <david_scott@fws.gov> wrote:
>
> Paula,
>
> I will be off next week but wanted to give you a quick update. Thank you for sharing your concerns about the E Collier Multi-Species HCP, it's draft EIS, and application of the best science for conservation of the Florida panther.
>
> I have taken some time to become more familiar with the project, the science articles you sent, etc. I also spoke with the FWS Regional Director for the Southeastern US, the ARD for Ecological Services in that Region, and the State Supervisor for Florida ... I expressed my expectation that they would fully and appropriately address all science-based concerns expressed in the public comments received for this draft EIS and apply the best available scientific information going forward with any revisions to that EIS. I will continue to monitor progress on the project and periodically check-in with ES staff working on this issue.
>
> **DAVID P. SCOTT**
> Science Integrity Officer
> U.S. Fish & Wildlife Service (SA-HQ)
> Ottawa National Wildlife Refuge
> 14000 West State Route 2
> Oak Harbor, OH 43449
> 612-597-2131
> David_Scott@fws.gov



From: Williams, Larry
To: Scott, David
Cc: Leopoldo Miranda; Catherine Phillips
Subject: Re: [EXTERNAL] Re: Follow-up - panther science, panther methodology, and regulatory decisions
Date: Tuesday, October 22, 2019 7:43:49 AM

Thanks Dave,
I'll be discussing the issues that Paula raises with our regulatory staff (Roxanna Hinzman and Connie Cassler) and our panther coordinator (Dave Shindle) in the next few weeks. After that discussion I'll circle back to you with my assessment. Also, I've reiterated to all of them the importance of properly applying the science.

Larry

On Mon, Oct 21, 2019 at 1:19 PM Scott, David <david_scott@fws.gov> wrote:

> FYI ... this is what I sent to Paula recently and her reply today. I suggest Larry Williams brief me on progress and any updates every 2-3 weeks ... thanks!
>
> **DAVID P. SCOTT**
> Science Integrity Officer
> U.S. Fish & Wildlife Service (SA-HQ)
> Ottawa National Wildlife Refuge
> 14000 West State Route 2
> Oak Harbor, OH 43449
> 612-597-2131
> David_Scott@fws.gov
>
> 
>
> ---------- Forwarded message ---------
> From: **Paula Halupa** <halupap@comcast.net>
> Date: Mon, Oct 21, 2019 at 12:49 PM
> Subject: [EXTERNAL] Re: Follow-up - panther science, panther methodology, and regulatory decisions
> To: Scott, David <david_scott@fws.gov>
>
> David,
>
> Thank you for the quick update and for your actions taken. That is a good start. I would appreciate any additional details you can share.
>
> Please let me know what concrete actions these leaders will be taking to ensure that the best available science on panthers and panther habitat will be used by the SFESO and the RO in its regulatory programs (i.e., section 7 and section 10). What changes will be made to the regulatory programs? How will leaders ensure that the current and future decisions are consistent with science and the ESA?

Also, please let me know the timeframe for the actions to be taken.

Thanks very much for your help.

-Paula

> On October 11, 2019 at 1:22 PM "Scott, David" <david_scott@fws.gov> wrote:
>
> Paula,
>
> I will be off next week but wanted to give you a quick update. Thank you for sharing your concerns about the E Collier Multi-Species HCP, it's draft EIS, and application of the best science for conservation of the Florida panther.
>
> I have taken some time to become more familiar with the project, the science articles you sent, etc. I also spoke with the FWS Regional Director for the Southeastern US, the ARD for Ecological Services in that Region, and the State Supervisor for Florida ... I expressed my expectation that they would fully and appropriately address all science-based concerns expressed in the public comments received for this draft EIS and apply the best available scientific information going forward with any revisions to that EIS. I will continue to monitor progress on the project and periodically check-in with ES staff working on this issue.
>
> **DAVID P. SCOTT**
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> 612-597-2131
> David_Scott@fws.gov

--
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: Arnold, Jack
To: Phillips, Catherine
Subject: Re: [EXTERNAL] Re: Follow-up - panther science, panther methodology, and regulatory decisions
Date: Monday, October 28, 2019 2:31:50 PM

OK - thanks

Jack Arnold
Deputy Assistant Regional Director - Ecological Services
U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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On Mon, Oct 28, 2019 at 3:47 PM Phillips, Catherine <catherine_phillips@fws.gov> wrote:

> It looks like Larry has this and all is good.
>
> C
>
> Catherine T. Phillips, Ph.D.
> Assistant Regional Director, Ecological Services
> South Atlantic-Gulf and Mississippi Basin
> Unified Regions
> U.S. Fish and Wildlife Service
> 1875 Century Boulevard
> Atlanta, GA 30345
> 404-679-7085
> 850-348-6497 (cell)
>
> On Mon, Oct 28, 2019 at 11:49 AM Arnold, Jack <jack_arnold@fws.gov> wrote:
>
> > Hi Cathy - just saw this as I was catching up on emails. Sorry, but my memory is failing me on the discussion we had a couple weeks ago. I'm confident Rob's folks and the field office will use the best science and address the comments that came in from the draft EIS - beyond that, is there something we need to be doing?
> >
> > Jack Arnold
> > Deputy Assistant Regional Director - Ecological Services
> > U.S. Fish and Wildlife Service
> > 1875 Century Blvd.

Atlanta, GA 30345
404-679-7311 office
404-679-7081 fax
703-789-5620 cell

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On Mon, Oct 21, 2019 at 2:08 PM Phillips, Catherine <catherine_phillips@fws.gov> wrote:

> Science integrity discussion I told you about a couple of weeks ago. Did you have a chance to talk with Rob about it or do you want me to?
>
> C
>
> Catherine T. Phillips, Ph.D.
> Assistant Regional Director, Ecological Services
> South Atlantic-Gulf and Mississippi Basin
> Unified Regions
> U.S. Fish and Wildlife Service
> 1875 Century Boulevard
> Atlanta, GA 30345
> 404-679-7085
> 850-348-6497 (cell)
>
> ---------- Forwarded message ---------
> From: **Scott, David** <david_scott@fws.gov>
> Date: Mon, Oct 21, 2019 at 1:19 PM
> Subject: Fwd: [EXTERNAL] Re: Follow-up - panther science, panther methodology, and regulatory decisions
> To: Leopoldo Miranda <leopoldo_miranda@fws.gov>, Catherine Phillips <catherine_phillips@fws.gov>, Williams, Larry <larry_williams@fws.gov>
>
> FYI ... this is what I sent to Paula recently and her reply today. I suggest Larry Williams brief me on progress and any updates every 2-3 weeks ... thanks!
>
> **DAVID P. SCOTT**
> Science Integrity Officer
> U.S. Fish & Wildlife Service (SA-HQ)
> Ottawa National Wildlife Refuge
> 14000 West State Route 2
> Oak Harbor, OH 43449
> 612-597-2131
> David_Scott@fws.gov

---------- Forwarded message ---------
From: **Paula Halupa** <halupap@comcast.net>
Date: Mon, Oct 21, 2019 at 12:49 PM
Subject: [EXTERNAL] Re: Follow-up - panther science, panther methodology, and regulatory decisions
To: Scott, David <david_scott@fws.gov>

David,

Thank you for the quick update and for your actions taken. That is a good start. I would appreciate any additional details you can share.

Please let me know what concrete actions these leaders will be taking to ensure that the best available science on panthers and panther habitat will be used by the SFESO and the RO in its regulatory programs (i.e., section 7 and section 10). What changes will be made to the regulatory programs? How will leaders ensure that the current and future decisions are consistent with science and the ESA?

Also, please let me know the timeframe for the actions to be taken.

Thanks very much for your help.

-Paula

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DAVID P. SCOTT
Science Integrity Officer
U.S. Fish & Wildlife Service (SA-HQ)
Ottawa National Wildlife Refuge
14000 West State Route 2
Oak Harbor, OH 43449
612-597-2131
David_Scott@fws.gov



From: Scott, David
To: Paula Halupa
Subject: Re: [EXTERNAL] Re: Follow-up - panther science, panther methodology, and regulatory decisions
Date: Friday, November 8, 2019 9:27:13 AM

Paula,

I had a chance to discuss the HCP and related Florida panther issues with Larry Williams today. I have reminded the SFESO and RO ES leadership of the need to fully comply with our Science Integrity policy and applicable ESA guidelines, etc. There have been discussions with staff regarding the science issues raised and the need to address them appropriately as the comments from the public are evaluated. I am comfortable for the time being that science-based concerns will be addressed before the HCP / EIS is finalized and that the Biological Opinion, if things progress, will be well grounded in science. You and others will have an opportunity to see how public input and issues, like those based on science, were addressed when Final documents are developed. If you have concerns related to science, please bring them to my attention at that time.

It appears that the HCP is or will be amended to include an additional / new landowner. I would expect the project documents to be in review for awhile given the comments received. Perhaps in the next year, a Final EIS and related documents will be available for the public ... that timeline is uncertain.

As for your various questions, I have communicated with all appropriate SE FWS ES leadership regarding the Science Integrity policy and its relationship to Florida panthers, the HCP and decision-making. I believe proper steps will be taken and will be reflected in any future documents or decisions.

Thanks for sharing your concerns.

DAVID P. SCOTT
Science Integrity Officer
U.S. Fish & Wildlife Service (SA-HQ)
Ottawa National Wildlife Refuge
14000 West State Route 2
Oak Harbor, OH 43449
612-597-2131
David_Scott@fws.gov



On Wed, Nov 6, 2019 at 9:44 PM Paula Halupa <halupap@comcast.net> wrote:

> David,
> Have you received any information regarding these matters? I would also appreciate answers to my questions.
> Thank you,
> -Paula

On October 21, 2019 at 1:20 PM "Scott, David" <david_scott@fws.gov> wrote:

Paula,

I just got back in the office today. I have no update at this point in time; however, I have asked for updates from the SFESO every 2-3 weeks.

DAVID P. SCOTT
Science Integrity Officer
U.S. Fish & Wildlife Service (SA-HQ)
Ottawa National Wildlife Refuge
14000 West State Route 2
Oak Harbor, OH 43449
612-597-2131
David_Scott@fws.gov



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Science Integrity Officer
U.S. Fish & Wildlife Service (SA-HQ)
Ottawa National Wildlife Refuge
14000 West State Route 2
Oak Harbor, OH 43449
612-597-2131
David_Scott@fws.gov



From: Scott, David
To: Catherine Phillips
Subject: Panthers
Date: Monday, November 18, 2019 8:42:30 AM

Hope you and baby are doing well ...

Here is the latest note on panthers -- the "complaint" if there is one is not specific, but rather vague and all encompassing with respect to the species and ESA issues. I will leave it to you (for now) to ensure that ES program actions and decisions, with respect to the species, are consistent with science and policy guidance and that appropriate changes are made if warranted. Thanks!

David,

Thank you for responding. I appreciate your efforts to discuss the HCP and related panther issues with Larry Williams and to remind the SFESO and RO ES leadership of their responsibilities regarding science integrity policy and the ESA. As stated in my 10/6/19 email to you, the panther science issues are broad and deep and occur on every project in panther habitat (with or without federal nexus) on a daily basis. Please understand the magnitude and breadth of the problems.

What I am looking for is an acknowledgment that FWS will correct its failed panther methodology and a commitment that it will start to use the best available science, which has been available for a long time (see Kautz et al 2006, Frakes et al 2015). I would like to know what specific actions FWS will take to change its practices regarding its panther regulatory decisions that occur on a daily basis. When will the panther methodology be corrected to be consistent with this science? What other specific actions will be taken? What "proper steps" do you believe FWS will be taking?

In short, I am looking for serious commitments and actions from the FWS for correcting long-standing panther science abuses and a time frame for those actions. It is not productive to wait until final documents are developed or to read BOs on the SFESO website to compare them to previous BOs, only to find that nothing has changed. The "can has been kicked down the road" for more than a decade. Such passivity will not help panther survival or recovery, and it is not consistent with the science integrity policy or federal law.

Sincerely,
-Paula

DAVID P. SCOTT
Science Integrity Officer
U.S. Fish & Wildlife Service (SA-HQ)
Ottawa National Wildlife Refuge
14000 West State Route 2
Oak Harbor, OH 43449
612-597-2131
David_Scott@fws.gov

From:	Mcdonald, Kenneth
To:	Dell, David
Cc:	Constance Cassler; Shindle, David; Heath Rauschenberger; Kristen Peters; Robert Tawes; Timothy Binzen; Roxanna Hinzman; Catherine Phillips; Charles Kelso; Jack Arnold; Warren, Ken; Kevin Palmer; Larry Williams; Mott, Vicki
Subject:	Re: East Collier HCP: Draft Agenda for in-Service meeting this Friday
Date:	Thursday, January 9, 2020 2:32:23 PM

Hey guys,

I'd intended to get the draft out by COB today, but I had an epiphany (brought on by a few papers and a fresh look at our data) about how to analyze and describe habitat fragmentation. I'm much happier now that I can say more than "it can happen" but the effort of bringing that together took up more time than I expected and set me back a few hours. I have a doctor's appointment tomorrow morning, but should be able to wrap this up afterwards and get it out by the end of tomorrow.

Ken

On Wed, Jan 8, 2020 at 3:15 PM Dell, David <david_dell@fws.gov> wrote:

> Everyone: I'm collecting topics for our in-Service meeting at the usual time on January 10. Please make suggestions at: https://drive.google.com/open?id=1IN8WrFzVmB1wlk1uHMA_tp6NSaCIA4c2ZaIABzV3zfs
>
> David Dell
> US Fish and Wildlife Service
> South Atlantic - Gulf and Mississippi Basin
> Unified Regions
> HCP and Safe Harbors Coordinator
> 404/679-7313
> 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.

--
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

From: Tawes, Robert
To: Phillips, Catherine
Subject: Fwd: East Collier HCP: Draft Agenda for in-Service meeting this Friday
Date: Friday, January 10, 2020 7:03:46 AM

FYI
---------- Forwarded message ---------
From: **Mcdonald, Kenneth** <kenneth_mcdonald@fws.gov>
Date: Thu, Jan 9, 2020 at 4:32 PM
Subject: Re: East Collier HCP: Draft Agenda for in-Service meeting this Friday
To: Dell, David <david_dell@fws.gov>
Cc: Constance Cassler <Constance_Cassler@fws.gov>, Shindle, David <david_shindle@fws.gov>, Heath Rauschenberger <heath_rauschenberger@fws.gov>, Kristen Peters <Kristen_Peters@fws.gov>, Robert Tawes <Robert_Tawes@fws.gov>, Timothy Binzen <timothy_binzen@fws.gov>, Roxanna Hinzman <roxanna_hinzman@fws.gov>, Catherine Phillips <Catherine_Phillips@fws.gov>, Charles Kelso <charles_kelso@fws.gov>, Jack Arnold <jack_arnold@fws.gov>, Warren, Ken <ken_warren@fws.gov>, Kevin Palmer <kevin_palmer@fws.gov>, Larry Williams <larry_williams@fws.gov>, Mott, Vicki <Vicki.Mott@sol.doi.gov>

Hey guys,

I'd intended to get the draft out by COB today, but I had an epiphany (brought on by a few papers and a fresh look at our data) about how to analyze and describe habitat fragmentation. I'm much happier now that I can say more than "it can happen" but the effort of bringing that together took up more time than I expected and set me back a few hours. I have a doctor's appointment tomorrow morning, but should be able to wrap this up afterwards and get it out by the end of tomorrow.

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kenneth_mcdonald@fws.gov

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--
Rob W. Tawes
Chief, Division of Environmental Review
U.S. Fish and Wildlife Service
South Atlantic, Gulf & Mississippi Basin Regions
1875 Century Boulevard
Atlanta, GA 30345
(w) 404/679-7142
(f) 404/679-7081
http://www.fws.gov/southeast/
www.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: Oetker, Michael
To: Dell, David
Subject: Re: East Collier 12th Applicant NOA cleared to go to Federal Register -- Needs E-signature
Date: Thursday, January 16, 2020 11:24:31 AM
Attachments: 20200108 NOA ECPO 12th appl (1).docx

On Wed, Jan 15, 2020 at 12:10 PM Dell, David <david_dell@fws.gov> wrote:

> Mike: We have been cleared to transmit this NOA to the Federal Register. Using the electronic signature process outlined below, we will be able to transmit to the Register within a few days.
>
> Please use the attached file below for the digital signature.
>
> Here are the steps (I also attached the correct NOA to use and the signature directions):
>
> Only you can sign it because the person who signs it is also the name on the signature page.
>
> 1. Attached is the .docx version of the FR notice for digital signature along with the screen shots directions.
>
> 2. Once the document is signed, it can not be "Saved", because the signature will be lost.
>
> 3. Once you sign it just forward the document to me by email.
>
> 4. I will then forward it to Sara Prigan by email and keep a record of my email.
>
> Please let me know if you have any questions.
>
> David Dell
> US Fish and Wildlife Service
> South Atlantic - Gulf and Mississippi Basin
> Unified Regions
> HCP and Safe Harbors Coordinator
> 404/679-7313
> 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.

---------- Forwarded message ---------
From: **Prigan, Sara** <sara_prigan@fws.gov>
Date: Tue, Jan 14, 2020 at 8:06 AM
Subject: cleared to go to Federal Register
To: David Dell <david_dell@fws.gov>, Trish Adams <trish_adams@fws.gov>, Amanda Murnane <amanda_murnane@fws.gov>

Receipt of Incidental Take Permit Application; Eastern Collier Property Owners, LLC, Multi-species Habitat Conservation Plan, Environmental Impact Statement, Collier County, Florida; Additional Applicant/Gargiulo, Inc.
Docket No. FWS–R4–ES–2018–0079
FR00003900
David Dell, Trish Adams,
Amanda Murnane

Thanks,

Sara Prigan
Management Analyst and Liaison to the Office of the Federal Register
Division of Policy, Economics, Risk Management, and Analytics (PERMA); Policy and Regulations Branch (PRB)
JOINT ADMINISTRATIVE OPERATIONS | U.S. Fish & Wildlife Service
5275 Leesburg Pike, MS: JAO/1N170C
Falls Church, VA 22041-3803
sara_prigan@fws.gov | office: (703) 358-2508

JAO MISSION: To deliver innovative administrative services that advance the mission of the U.S. Fish & Wildlife Service.

--
Mike Oetker
Deputy Regional Director
U.S. Fish and Wildlife Service
South Atlantic-Gulf and Mississippi Basin Unified Regions

404-679-4000

Billing Code 4333–15

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[Docket No. FWS–R4–ES–2018–0079; FXES11140400000–178–FF04EF2000]

Receipt of Incidental Take Permit Application; Eastern Collier Property Owners, LLC, Multi-species Habitat Conservation Plan, Collier County, Florida; Additional Applicant

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; request for comments.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce receipt of an application from Gargiulo, Inc. (applicant) for an incidental take permit (ITP) under the Endangered Species Act. The applicant requests to join 11 other landowners, collectively known as "Eastern Collier Property Owners, LLC," in requesting individual 50-year ITPs authorizing take of the Florida panther and 18 other Federal or State-listed species. The take would be incidental to residential and commercial development, earth

mining, and low-intensity rural land activities on properties in Collier County, Florida (project). We are accepting comments on Gargiulo, Inc.'s ITP application.

DATES: We will accept comments received or postmarked on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments submitted electronically at http://www.regulations.gov must be received by 11:59 p.m. Eastern time on the closing date. Any comments we receive after the closing date may not be considered in the final decision on these actions.

ADDRESSES: ***Obtain Documents*:** You may obtain copies of documents related to this application by the following methods:

Internet: http://www.regulations.gov (search for Docket No. FWS–R4–ES–2018–0079).

Field Office: https://www.fws.gov/verobeach/.

Submit Comments: You may submit written comments by the following methods:

Internet: http://www.regulations.gov. Follow the instructions for submitting comments on Docket No. FWS–R4–ES–2018–0079.

Hard Copy: Via U.S. mail or hand-delivery to Public Comments Processing, Attn: FWS–R4–ES–2018–0079, U.S. Fish and Wildlife Service Headquarters, JAO/1N, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

Review Public Comments: Submitted comments may be viewed at http://www.regulations.gov in Docket No. FWS–R4–ES–2018–0079.

FOR FURTHER INFORMATION CONTACT: David Dell, Regional HCP Coordinator, by mail at Attn: ECPO, U.S. Fish and Wildlife Service, 1875 Century Boulevard, Atlanta, GA 30345, or by telephone at 404–679–7313; or Constance Cassler, Supervisory Fish and Wildlife Biologist, by mail at the South Florida Ecological Services Office, Attn: ECPO, U.S. Fish and Wildlife Service, 1339 20th Street, Vero Beach, FL 32960; or by telephone at 772–469–4356.

SUPPLEMENTARY INFORMATION: We, the U.S. Fish and Wildlife Service, have received an application for an incidental take permit (ITP) under the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*). The applicant seeks to join 11 other landowners, collectively known as "Eastern Collier Property Owners, LLC" (ECPO), in obtaining individual 50-year ITPs. ECPO collaborated on a joint HCP to address long-term land-use planning and conservation issues related to the Florida panther in the east Collier County area (see also http://www.floridapantherprotection.com). Table 1 lists the species covered by the HCP. The Service announced the availability of 11 landowners' ITP applications in the *Federal Register* on October 19, 2018 (83 FR 53078). The applications included a jointly prepared habitat conservation plan (HCP). We also sought comment on our draft environmental impact statement (EIS). The comment period closed on December 3, 2018.

All 12 applicants are listed below in Table 2.

Applicant

Gargiulo, Inc. purchased approximately 5,000 acres from another ECPO member, Collier Enterprises Management, Inc. The purchased tracts are already included in the HCP area, and there have been no changes to the activities covered by the HCP since publication of the October 19, 2018, notice.

Table 1. HCP-covered wildlife species and their protected statuses.

Status	Common name	Scientific name
Listed as endangered under the ESA	Florida panther	*Puma concolor coryi*
	Florida bonneted bat	*Eumops floridanus*
	Red-cockaded woodpecker	*Picoides borealis*
	Everglade snail kite	*Rostrhamus sociabilis plumbeus*
Listed as threatened under the ESA	Wood stork	*Mycteria americana*
	Crested caracara	*Polyborus plancus audubonii*
	Florida scrub jay	*Aphelocoma coerulescens*
	Eastern indigo snake	*Drymarchon corais couperi*
Candidate species or species under review for Federal listing	Gopher tortoise	*Gopherus polyphemus*
	Eastern diamondback rattlesnake	*Crotalus adamanteus*
	Gopher frog	*Lithobates capito*
State-listed species	Big Cypress fox squirrel	*Sciurus niger avicennia*
	Everglades mink	*Neovison vison evergladensis*
	Burrowing owl	*Athene cunicularia*
	Florida sandhill crane	*Antigone canadensis pratensis*
	Little blue heron	*Egretta caerulea*
	Roseate spoonbill	*Platalea ajaja*
	Southeastern American kestrel	*Falco sparverius paulus*
	Tricolored heron	*Egretta tricolor*

Table 2. Members of Eastern Collier Property Owners, LLC, and their incidental take permit application numbers.

Applicants	Permit application numbers
Alico Land Development, Inc.	TE05647D–0
Barron Collier Investment, Ltd.	TE04440D–0
Collier Enterprises Management, Inc.	TE04443D–0
Consolidated Citrus Limited Partnership	TE04471D–0
English Brothers Partnership	TE04152D–0
Gargiulo, Inc.	TE54442D–0
Half Circle L Ranch, LLP	TE05238D–0
Heller Bros. Packing Corp.	TE05668D–0
JB Ranch I, LLC	TE04473D–0
Owl Hammock Immokalee, LLC	TE06114D–0
Pacific Land, Ltd.	TE05665D–0
Sunniland Family Limited Partnership	TE04472D–0

Background

Section 9 of the ESA and its implementing regulations prohibit "take" of federally listed "threatened" or "endangered" fish and wildlife species. However, section 10(a) of the ESA provides exceptions to the prohibition by allowing the Service to issue permits authorizing take of listed species where such take is incidental to, and not the purpose of, otherwise lawful activities, provided the applicant meets certain statutory requirements.

The ECPO HCP proposes a programmatic approach and framework for engaging in incidental take of the covered species while providing for the permanent protection of portions of the HCP area via conservation easements and funding for conservation activities in addition to those provided in the HCP. ECPO collectively owns a total of 151,779 acres within the approximately 174,000-acre HCP area. Up to 45,000 acres of

the area could be developed or used for other activities under the HCP. Impacts to covered species from the project would be mitigated through habitat management measures, the placement of conservation easements on up to 107,000 acres of the HCP area, and contributions to a conservation endowment, the Marinelli Fund, to implement conservation measures for the covered species throughout and beyond the HCP area.

Draft Environmental Impact Statement

We published a notice of intent to prepare an EIS for ECPO's HCP in the *Federal Register* on March 25, 2016 (81 FR 16200). A public scoping meeting was held in Naples, Florida, on April 12, 2016, and an online public participation webcast was conducted on April 19, 2016. We incorporated issues identified during the scoping meetings into the draft EIS. A summary of the comments received during the scoping period is provided in the scoping report appended to the draft EIS. We published a notice of availability of the draft EIS on October 19, 2018.

The draft EIS assesses the likely environmental impacts associated with the implementation of the activities proposed in the HCP compared to the likely consequences of not issuing the requested ITPs, i.e., uncoordinated project-by-project and lot-by-lot planning and mitigation. The Department of the Army, through its bureau the U.S. Army Corps of Engineers, Jacksonville District, is a cooperating agency in the development of the draft EIS.

Public Comments

Comments previously submitted on the HCP, draft EIS, or 11 ITP applications need not be resubmitted. We have incorporated them into the public record and will fully consider them in our deliberations on whether to issue the requested ITPs.

If you wish to comment on Gargiulo, Inc.'s ITP application, you may submit comments by any one of the methods listed above in **ADDRESSES**. Before including your address, phone number, email address, or other personal identifying information in your comment, be aware that your entire comment—including your personal identifying information—may be made available to the public at any time. While you may request in your comment that we withhold your personal identifying information, we cannot guarantee that we will be able to do so.

Next Steps

We will evaluate the HCP, draft EIS, and public comments to determine whether the ITP application meets the permit issuance requirements of section 10(a) of the ESA. We will also conduct an intra-Service consultation pursuant to section 7 of the ESA. If the requirements for permit issuance are met, we will issue an ITP to the applicant.

Authority

We provide this notice under section 10 of the ESA (16 U.S.C. 1531 *et seq.*), ESA regulations in Title 50 of the Code of Federal Regulations, and the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) and NEPA regulation 40 CFR 1506.6.

Mike Oetker,
Deputy Regional Director.

From: amber crooks
To: "michael_oetker@fws.gov"
Cc: "Williams, Larry"; "david_dell@fws.gov"
Subject: Thank you from Conservancy of Southwest Florida
Date: Thursday, January 16, 2020 12:26:34 PM
Attachments: PRT and Conservancy vision.png

Dear Deputy Regional Director Oetker,

Thank you for attending the Everglades Coalition Conference and for sitting at our dinner tables. It was nice to meet you and appreciate the opportunity to speak with you about our opposition to the Eastern Collier Habitat Conservation Plan.

As a follow up, I wanted to provide the resources of our website, where we have our comment letters, maps, and also reports from Dr. Robert Frakes (retired USFWS, panther habitat modeler), and Dr. Reed Noss (ecologist, HCP expert): https://www.conservancy.org/our-work/policy/wildlife-and-habitat-protection/eastern-collier.

The Conservancy has been advocating for denial of the HCP ITP because it doesn't meet issuance criteria and would jeopardize the Florida panther. We have been recommending a revised footprint of development in the HCP area that would move development away from the panther primary zone and into the secondary zone only (see attached).

Our vision map is attached and closely mirrors the Panther Review Team recommendations (that team reviewed the development proposal in 2009 and included experts such as David Shindle, Darrell Land, Chris Belden, Randy Kautz, and others). The Conservancy's alternative vision would save about 20,000 acres of primary zone acres from further intensification.

Let me know if you have any questions or would like to discuss further.

In Kind Regards,
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

From: Maloof, Laura <laura_maloof@fws.gov>
Sent: Wednesday, January 08, 2020 4:24 PM
To: amber crooks <amberc@conservancy.org>
Cc: Williams, Larry <Larry_Williams@fws.gov>
Subject: Fwd: [EXTERNAL] Invitation to sit at head tables at EVCO Friday dinner

Amber,

Leo will not be able to attend the conference this weekend but Mike Oetker his deputy will be in attendance. He will be honored to sit at the head table with Larry.

Thank you,

Laura

Laura Maloof
Executive Assistant
U.S. Fish and Wildlife Service ¦ South Atlantic-Gulf & Mississippi Basin Unified Interior Regions
1875 Century Blvd., Suite 400
Atlanta, GA 30345

404-679-4000
404-679-4006 (fax)

---------- Forwarded message ---------
From: **amber crooks** <amberc@conservancy.org>
Date: Wed, Jan 8, 2020 at 2:57 PM
Subject: [EXTERNAL] Invitation to sit at head tables at EVCO Friday dinner
To: acquanetta_reese@fws.gov <acquanetta_reese@fws.gov>, leopoldo_miranda@fws.gov <leopoldo_miranda@fws.gov>
Cc: Larry Williams <larry_williams@fws.gov>

Greetings,

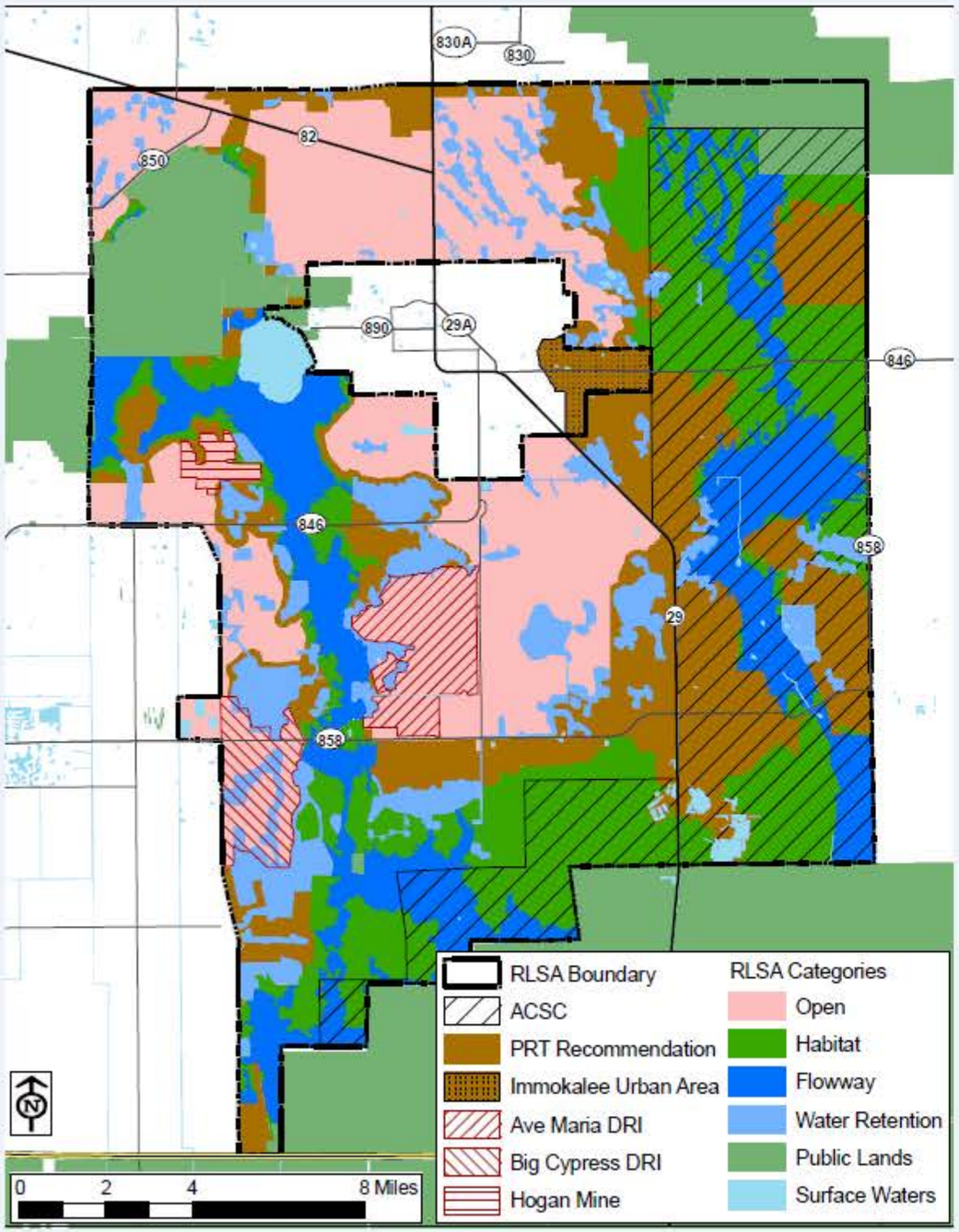
On behalf of the Conservancy of Southwest Florida and Florida Oceanographic Society I would like to extend an offer to sit at our reserved head tables at the Friday night dinner at the Everglades Coalition Conference.

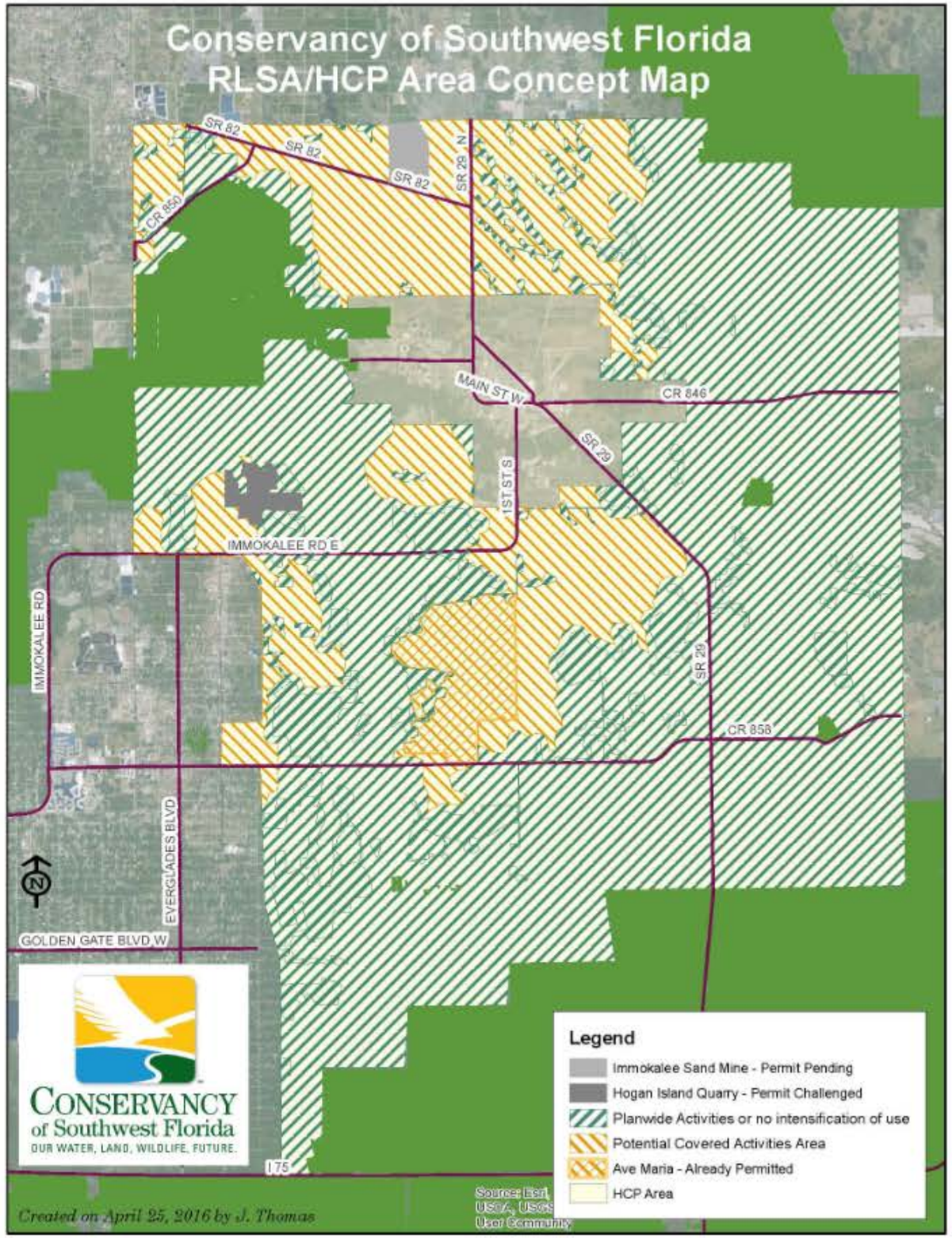
Congressman Brian Mast will be the keynote speaker at the dinner.

I know that you will be attending the conference and if staying for dinner was in your plans, please join us. Let me know if you will be there and if you will have a guest with you. I have also extended an invitation to State Supervisor Larry Williams.

Sincerely,
Amber Crooks, Environmental Policy Manager
Conservancy of Southwest Florida
1495 Smith Preserve Way
Naples, FL 34102
(239) 262-0304 ext. 286

(239) 776-5601 cell phone
amberc@conservancy.org
www.conservancy.org


830A
830
82
850
890
29A
846
858
29
RLSA Boundary
ACSC
PRT Recommendation
Immokalee Urban Area
Ave Maria DRI
Big Cypress DRI
Hogan Mine
RLSA Categories
Open
Habitat
Flowway
Water Retention
Public Lands
Surface Waters
0
2
4
8 Miles


Conservancy of Southwest Florida
RLSA/HCP Area Concept Map
SR 82
CR 850
SR 29 N
MAIN ST W
CR 846
SR 29
1ST ST S
IMMOKALEE RD E
IMMOKALEE RD
EVERGLADES BLVD
GOLDEN GATE BLVD W
CR 858
I 75
CONSERVANCY
of Southwest Florida
OUR WATER, LAND, WILDLIFE, FUTURE.
Legend
Immokalee Sand Mine - Permit Pending
Hogan Island Quarry - Permit Challenged
Planwide Activities or no intensification of use
Potential Covered Activities Area
Ave Maria - Already Permitted
HCP Area
Created on April 25, 2016 by J. Thomas

From: Reese, Acquanetta
To: Leopoldo Miranda
Cc: Barnhill, Laurel
Subject: Fwd: scheduling RD visit to Florida
Date: Wednesday, January 22, 2020 5:33:24 AM

Hey Leo.....please see Larry Williams' email ..... I can respond to him that you will be attending the NOrth American conference but wanted to know if you would like to try to squeeze something in or just pick another 3 days to do this visit.

---------- Forwarded message ---------
From: **Williams, Larry** <larry_williams@fws.gov>
Date: Tue, Jan 21, 2020 at 11:29 AM
Subject: scheduling RD visit to Florida
To: Acquanetta Reese <acquanetta_reese@fws.gov>, Maloof, Laura <laura_maloof@fws.gov>
Cc: LeeAnn Kelso <LeeAnn_Kelso@fws.gov>

Acquanetta and Laura,
We'd like to try rescheduling Leo's visit to south Florida. One option would be combining it with the plank laying ceremony at Pelican Island on March 14 (Saturday). I'm assuming Leo will attend the plank laying. If so, his itinerary could be something like:

- travel into Ft. Myers on March 11
-visit the Eastern Collier HCP and The Place/Verdana on March 12
-tour Lake Okeechobee and Everglades Headwaters on March 13
-attend plank laying at Pelican Island on March 14
-travel back the evening of March 14 or morning of March 15 (likely fly out of Orlando)

I have no idea what his calendar is like, so no idea if this could work. If this wouldn't work perhaps you could let us know some other 3 day windows that are available, and we can start there.

Thanks!

Larry

--
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.

--
Acquanetta Reese ¦Executive Assistant to the Regional Director

U.S. Fish and Wildlife Service ¦ South Atlantic-Gulf & Mississippi-Basin Unified Interior Regions

1875 Century Blvd; Suite 400 ¦ Atlanta, Georgia 30345

Phone: 404-679-4000 ¦ **Fax:** 404-679-4006 ¦ **Email:** acquanetta_reese@fws.gov

"We all Die!! The goal isn't to live forever, it is to 'create' something that will!" Chuck Palahniuk

From: Warren, Ken
To: Williams, Larry
Cc: Catherine Phillips; Hinzman, Roxanna; Brian Hires; Philip Kloer; Constance Cassler; David Shindle
Subject: Re: [EXTERNAL] Re: Reporter Gathering Info About Florida Panthers For Possible Story
Date: Monday, January 27, 2020 7:15:52 AM

Thanks Larry. I added Connie and David so they'll have some inkling about what's going on.

On Mon, Jan 27, 2020 at 9:12 AM Williams, Larry <larry_williams@fws.gov> wrote:

> Ken,
> I'm glad we're moving forward with this interview. Connie and David know this work inside out. Two talking points I would focus on:
>
> -the Florida panther population is constantly growing. That has been demonstrated by data for years now
> -panthers need corridors, and we build them. Most section 7 consultations that involve panthers have some element of corridors. The Eastern Collier HCP has major corridors. The Service works with FWC, FDACS, TNC, and others to build massive corridors (e.g. look at land protections in past 10 years in the Dispersal Zone).
>
> I suggest Connie and David anchor the conversation in these two points.
>
> Thanks!
>
> Larry
>
> On Mon, Jan 27, 2020 at 8:49 AM Warren, Ken <ken_warren@fws.gov> wrote:
>
> > I'll be working with David Shindle and Connie Cassler (who will be our likely subject matter experts who'd talk to the reporter--if they're willing and available) to develop the talking points. The TPs have to be part of the template that gets sent up channel for review/approval--Brian Hires from HQ/EA (cc'd on this is) is already engaged.
> >
> > Ken Warren
> >
> > On Sun, Jan 26, 2020 at 4:28 PM Catherine Phillips <catherine_phillips@fws.gov> wrote:
> >
> > > Hi all. Don't forget these all have to be run through the dept now for approval.
> > >
> > > I'm ok with doing the interview if we get approval, but please develop talking points and stick to the facts.
> > >
> > > C
> > >
> > > Sent from my iPhone
> > >
> > > On Jan 26, 2020, at 12:06 PM, Hinzman, Roxanna <roxanna_hinzman@fws.gov> wrote:

I am fine with Shindle and Connie talking with him as long as Ken is at least on the phone and can head questions off if he heads for the ditches. I am sure both of them can handle any technical/process questions. I've looped Catherine in because I want to make sure she is aware and doesn't have concerns/issues/etc.

Roxanna Hinzman ¦ Field Supervisor
U.S. Fish and Wildlife Service ¦ South Florida Ecological Services Office
1339 20th Street ¦ Vero Beach, Florida 32960
Direct line: 772-469-4309 ¦ Office: 772-562-3909 ext. 309
Cell 772-532-1247 ¦ Fax 772-562-4288 ¦ roxanna_hinzman@fws.gov

South Atlantic-Gulf Region Vision: Together, we will connect lands and waters to sustain fish, wildlife and plants by being visionary leaders, bold innovators and trusted partners, working with and for people.

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Visit our Web Site https://www.fws.gov/verobeach/

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On Fri, Jan 24, 2020 at 9:19 AM Warren, Ken <ken_warren@fws.gov> wrote:

> Hi Phil and Brian,
>
> When Brian and I talked to Jimmy Tobias he told us he'd send us more specific questions. He finally sent them yesterday (see below email); two very broad questions as you can see. He really wants to talk to David Shindle our Florida panther coordinator and wants to talk to him on Feb. 21.
>
> I personally don't have any issue with Jimmy talking to David Shindle, David is super sharp and I have no doubt he's the right person to talk to Jimmy about the science of panther conservation...but I haven't asked David if he's open to it or available on Feb. 21. I haven't heard from South FL Field Supervisor Rox Hinzman (she's been out of pocket), David's immediate boss if she's good with David or anybody talking to Jimmy. I

talked to Larry Williams, our State ES Supervisor, about it and he said he generally prefers to have our SME's talk to reporters, but I think he wanted to check in with Rox to see how she feels about this particular interview. Larry has also been out of pocket this week at a retreat with FWC leadership. I'd communicated to them via previous memo (via email) that Jimmy was going to send us more specific questions. This email is the first Larry and Rox have seen of his "more specific" questions. Larry, Rox and/or supervisory biologist Connie Cassler are probably the best people to talk about the development of the Eastern Collier Multi-Species HCP.

Anyway, given Leo Miranda's probable interest, the best approach might be for Phil to ask Leo for guidance here.

Please advise.

Thanks.

Ken Warren

---------- Forwarded message ---------
From: **Jimmy Tobias** <jimmytobias@protonmail.com>
Date: Thu, Jan 23, 2020 at 4:20 PM
Subject: Re: [EXTERNAL] Re: Reporter Gathering Info About Florida Panthers For Possible Story
To: Warren, Ken <ken_warren@fws.gov>

Hi Ken,

I see. Thank you.

I have two broad categories of questions:

1) I am interested in learning more about the process that has led to the development of the Eastern Collier Habitat Conservation Plan. How did this plan come about? Who developed it? What is it trying to achieve? What sort of public process has it gone through? Etc.

2) I am interested in learning about the science of panther conservation -- the species habitat needs, it's current status, the recent history of its population dynamics, and the threats it faces in Florida today. I was hoping to speak with David Shindle about this second category of questions primarily.

Jimmy

Jimmy Tobias
Phone: 248-763-0088
Email: jimmytobias@protonmail.com

Website: www.jimmytobias.com

Sent with ProtonMail Secure Email.

------- Original Message -------
On Thursday, January 23, 2020 4:13 PM, Warren, Ken <ken_warren@fws.gov> wrote:

> After we talked I told our leadership that you'd be sending us a more detailed and specific set of questions. And as I explained to you, that's to help us better prepare for the potential interview and to determine who the appropriate subject matter expert(s) would be.
>
> On Thu, Jan 23, 2020 at 4:04 PM Jimmy Tobias <jimmytobias@protonmail.com> wrote:
>> Hi Ken,
>>
>> Thanks for the quick reply.
>>
>> Just to clarify: Are you asking to vet my questions before you decide whether to provide Mr. Shindle for an interview?
>>
>> Please let me know.
>>
>> Jimmy
>>
>> Jimmy Tobias
>> Phone: 248-763-0088
>> Email: jimmytobias@protonmail.com
>> Website: www.jimmytobias.com
>>
>> Sent with ProtonMail Secure Email.
>>
>> ------- Original Message -------
>> On Thursday, January 23, 2020 3:51 PM, Ken Warren <ken_warren@fws.gov> wrote:
>>
>>> Hi Jimmy,
>>>
>>> We need to see those questions before decision on David Shindle can be made.
>>>
>>> Thanks.
>>>
>>> Ken Warren

Sent from my iPhone

On Jan 23, 2020, at 3:25 PM, Jimmy Tobias <jimmytobias@protonmail.com> wrote:

> Hi Ken,
>
> I just wanted to follow up and see if there is a particularly good time on the 21st of February for me to meet with Mr. Shindle. Let me know and thank you!
>
> I'll be sending questions along in advance. By the way, are there any contacts at Collier Enterprises you'd suggest I reach out to.
>
> Jimmy Tobias
>
> Jimmy Tobias
> Phone: 248-763-0088
> Email: jimmytobias@protonmail.com
> Website: www.jimmytobias.com
>
> Sent with ProtonMail Secure Email.
>
> ------- Original Message -------
> On Saturday, January 18, 2020 9:58 AM, Jimmy Tobias <jimmytobias@protonmail.com> wrote:
>
> > Thanks for making the introduction Ken.
> >
> > Whenever you get a chance, I'd love to nail down a date to meet with David Shindle.
> >
> > Have a great weekend!
> >
> > Jimmy

Jimmy Tobias
Phone: 248-763-0088
Email:
jimmytobias@protonmail.com
Website:
www.jimmytobias.com

Sent with ProtonMail
Secure Email.

------- Original
Message -------
On Tuesday, January
14, 2020 4:34 PM,
Warren, Ken
<ken_warren@fws.gov>
wrote:

> Hi Carli,
>
> I just
> spoke to
> freelance
> writer/investigative
> reporter
> Jimmy
> Tobias
> (cc'd)
> about a
> wide-
> ranging
> story he's
> planning
> to do on
> Florida
> panthers
> that will
> likely
> focus on
> the
> impacts
> of to
> panthers
> by a
> proposed
> town
> (Rural
> Lands
> West) to

be developed on thousands of acres in Eastern Collier County. Jimmy has done articles for The Guardian and The Nature focused on nature/conservation. He's planning to visit SW Florida in late February to interview people for this story on the Florida panther and the development in Collier County, including folks from conservation groups and developers/property owners looking to build out this area.

Jimmy said a part of his story will get into the history/science of the species, its current status and population trajectory--which FWC can probably help him with. He asked me who a good contact is with FWC because while he's here he'd like to talk to someone from FWC. So, please consider this an introduction via email.

Within the next couple of weeks, Jimmy's going to send us some general

questions he has in mind so we can have a good idea of what he'd like to know.

In the meantime, please feel free to contact Jimmy as you see fit.

More to follow.

Thanks.

--
Ken Warren
Public Affairs Officer
U.S. Fish & Wildlife Service
South Florida Ecological Services Office
1339 20th Street
Vero Beach, FL 32960-3559
Office Phone: 772.469.4323

Mobile
Phone:
772.643.4407

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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

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> may be disclosed to third parties.

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Ken Warren
Public Affairs Officer
U.S. Fish & Wildlife Service
South Florida Ecological Services Office
1339 20th Street
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Office Phone: 772.469.4323
Mobile Phone: 772.643.4407

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From: Maloof, Laura
To: Oetker, Michael; Miranda, Leopoldo; Barnhill, Laurel; Viker, David; Jackson, Stephen
Cc: Reese, Acquanetta
Subject: RE: Action: Pelican Island event
Date: Wednesday, February 19, 2020 11:40:02 AM

Here is a list of BPs we put together for last week for the VTC with Aurelia:

1. US Air Force Partnership
2. Eastern Collier Property Owners
3. Proposed reclassification of the Florida Key Deer with Section 4(d) rule
4. Status of Florida grasshopper sparrow
5. Proposed reclassification of the RCW
6. Gulf Restoration
7. Everglades Headwaters NWR and Conservation Area
8. Florida Water Quality in South Florida NWRs
9. State and Federal Collaboration in the Norther Everglades, ARM Loxahatchee NWR

From: Oetker, Michael <Michael_Oetker@fws.gov>
Sent: Wednesday, February 19, 2020 1:26 PM
To: Miranda, Leopoldo <Leopoldo_Miranda@fws.gov>; Barnhill, Laurel <Laurel_Barnhill@fws.gov>; Viker, David <david_viker@fws.gov>; Jackson, Stephen <stephen_jackson@fws.gov>
Cc: Maloof, Laura <laura_maloof@fws.gov>; Reese, Acquanetta <acquanetta_reese@fws.gov>
Subject: RE: Action: Pelican Island event

Adding Laura and Acquanetta

Laura will list all of the Florida related BPs that we have ready to go right now.

Mike

Mike Oetker
Deputy Regional Director
Interior Regions 2 & 4
U.S. Fish and Wildlife Service
404-679-4000

From: Miranda, Leopoldo <Leopoldo_Miranda@fws.gov>
Sent: Wednesday, February 19, 2020 11:21 AM
To: Oetker, Michael <Michael_Oetker@fws.gov>; Barnhill, Laurel <Laurel_Barnhill@fws.gov>; Viker, David <david_viker@fws.gov>; Jackson, Stephen <stephen_jackson@fws.gov>
Subject: Action: Pelican Island event

Aurelia will be at the Pelican Island event. A few things we will need:

1. Top 10 BPs of issues she may be asked about by participants and press. (remember this will be in FL)
2. Need a dedicated EA person to fully support on coordinating press opportunities, run of show, etc.
3. A white paper with the history Pelican Island and the history of the event.
4. Talking points to work with Barbara and her staff to ensure Aurelia is fully prepared.

This is the very first big event for Aurelia in our Regions. This one will need to be an A++ work.

More to come...

Leo

Leopoldo Miranda, Regional Director
USFWS, South Atlantic-Gulf &
Mississippi-Basin
404-679-4000

Sent from my iPhone

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From:	Oetker, Michael
To:	Maloof, Laura; Miranda, Leopoldo; Barnhill, Laurel; Viker, David; Jackson, Stephen
Cc:	Reese, Acquanetta
Subject:	RE: Action: Pelican Island event
Date:	Wednesday, February 19, 2020 11:42:40 AM

Thank you Laura. Some other topics to consider are manatees and FL panthers. Other topics?

Mike Oetker
Deputy Regional Director
Interior Regions 2 & 4
U.S. Fish and Wildlife Service
404-679-4000

From: Maloof, Laura <laura_maloof@fws.gov>
Sent: Wednesday, February 19, 2020 1:40 PM
To: Oetker, Michael <Michael_Oetker@fws.gov>; Miranda, Leopoldo <Leopoldo_Miranda@fws.gov>; Barnhill, Laurel <Laurel_Barnhill@fws.gov>; Viker, David <david_viker@fws.gov>; Jackson, Stephen <stephen_jackson@fws.gov>
Cc: Reese, Acquanetta <acquanetta_reese@fws.gov>
Subject: RE: Action: Pelican Island event

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6. Gulf Restoration
7. Everglades Headwaters NWR and Conservation Area
8. Florida Water Quality in South Florida NWRs
9. State and Federal Collaboration in the Norther Everglades, ARM Loxahatchee NWR

From: Oetker, Michael <Michael_Oetker@fws.gov>
Sent: Wednesday, February 19, 2020 1:26 PM
To: Miranda, Leopoldo <Leopoldo_Miranda@fws.gov>; Barnhill, Laurel <Laurel_Barnhill@fws.gov>; Viker, David <david_viker@fws.gov>; Jackson, Stephen <stephen_jackson@fws.gov>
Cc: Maloof, Laura <laura_maloof@fws.gov>; Reese, Acquanetta <acquanetta_reese@fws.gov>
Subject: RE: Action: Pelican Island event

Adding Laura and Acquanetta

Laura will list all of the Florida related BPs that we have ready to go right now.

Mike

Mike Oetker
Deputy Regional Director
Interior Regions 2 & 4
U.S. Fish and Wildlife Service
404-679-4000

From: Miranda, Leopoldo <Leopoldo_Miranda@fws.gov>
Sent: Wednesday, February 19, 2020 11:21 AM
To: Oetker, Michael <Michael_Oetker@fws.gov>; Barnhill, Laurel <Laurel_Barnhill@fws.gov>; Viker, David <david_viker@fws.gov>; Jackson, Stephen <stephen_jackson@fws.gov>
Subject: Action: Pelican Island event

Aurelia will be at the Pelican Island event. A few things we will need:

1. Top 10 BPs of issues she may be asked about by participants and press. (remember this will be in FL)
2. Need a dedicated EA person to fully support on coordinating press opportunities, run of show, etc.
3. A white paper with the history Pelican Island and the history of the event.
4. Talking points to work with Barbara and her staff to ensure Aurelia is fully prepared.

This is the very first big event for Aurelia in our Regions. This one will need to be an A++ work.

More to come...

Leo

Leopoldo Miranda, Regional Director
USFWS, South Atlantic-Gulf &
Mississippi-Basin
404-679-4000

Sent from my iPhone

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From: Microsoft Teams
To: catherine_phillips@fws.gov
Subject: You have been added to a team in Microsoft Teams
Date: Friday, February 21, 2020 11:04:41 AM

Microsoft Teams

David added you to the Eastern Collier Property Owners HCP team!

EC

Eastern Collier Property Owners HCP

2 members

Eastern Collier Property Owners HCP

Open Microsoft Teams



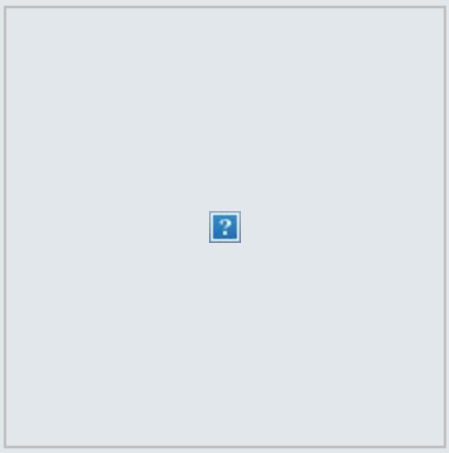
Bring your team together

Create an open, collaborative workspace for your team. Use channels to organize conversations by topic, area, or anything else.



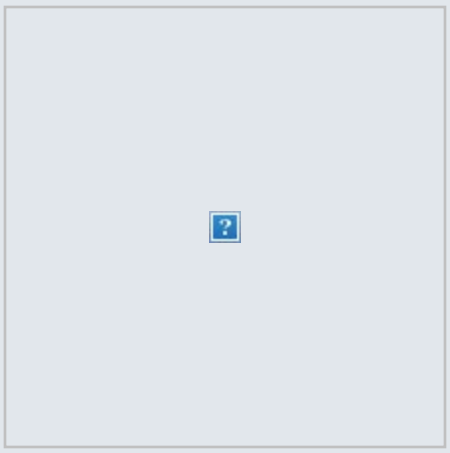
Chat 1:1 and with groups

Outside of open team conversations, chat privately and share files and notes with anyone in your organization.



Make video calls and schedule online meetings

Have impromptu or scheduled meetings in any channel. Or just call someone...



Team files, notes, and apps in one place

Your team's tools are organized and integrated in Microsoft Teams with the power of Office 365.

Open Microsoft Teams

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- Mac
- iOS
- Android

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From: Williams, Larry O
To: Miranda, Leopoldo
Cc: Phillips, Catherine; Oetker, Michael; Barnhill, Laurel; Goessling, Shannon L
Subject: Re: URGENT - East Collier matter
Date: Friday, February 21, 2020 1:09:28 PM

We will get in touch with them.

Sent from my iPhone

On Feb 21, 2020, at 2:33 PM, Miranda, Leopoldo <Leopoldo_Miranda@fws.gov> wrote:

> Larry/Catherine
>
> Can someone call EPCO today and ask not to engage Director's Office at this moment? The SESrs in Atlanta have not been involved to listen to the issue and come up with solutions. If they do elevate, that will complicate things and probably not help them.
>
> Leo
>
> Leopoldo Miranda, Regional Director
> USFWS, South Atlantic-Gulf &
> Mississippi-Basin
> 404-679-4000
>
> Sent from my iPhone
>
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From:	Williams, Larry O
To:	Hinzman, Roxanna
Cc:	Miranda, Leopoldo; Oetker, Michael; Barnhill, Laurel; Goessling, Shannon L; Phillips, Catherine; Cassler, Constance; Dell, David
Subject:	Re: URGENT - East Collier matter
Date:	Friday, February 21, 2020 2:19:19 PM

Thank you!

Sent from my iPhone

On Feb 21, 2020, at 3:59 PM, Hinzman, Roxanna <roxanna_hinzman@fws.gov> wrote:

> Larry,
> I called Christian. He will send an email to the director's office to clarify that he is reaching out to the SOL in HQ at the request of Regional SOL Office, and that the director's office was a courtesy copy. He will further clarify that ECPO will continue to work with the RO and SFESFO. He'll cc Leo on this communication. If there's anything else you need please let me know.
> Rox
>
> ---
> **Roxanna Hinzman** ¦ Field Supervisor
> U.S. Fish and Wildlife Service ¦ South Florida Ecological Services Office
> 1339 20th Street ¦ Vero Beach, Florida 32960
> **Direct line: 772-469-4309** ¦ Office: 772-562-3909 ext. 309
> Cell 772-532-1247 ¦ Fax 772-562-4288 ¦ roxanna_hinzman@fws.gov
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>
> ---
>
> **From:** Williams, Larry O <larry_williams@fws.gov>
> **Sent:** Friday, February 21, 2020 3:11 PM
> **To:** Hinzman, Roxanna <roxanna_hinzman@fws.gov>; Cassler, Constance <constance_cassler@fws.gov>
> **Subject:** Fwd: URGENT - East Collier matter
>
> Rox, Connie,
> Can one of you contact EPCO and pass this on to them please?
>
> Thank you!

Larry

Sent from my iPhone

Begin forwarded message:

> **From:** "Miranda, Leopoldo" <Leopoldo_Miranda@fws.gov>
> **Date:** February 21, 2020 at 2:33:53 PM EST
> **To:** "Williams, Larry O" <larry_williams@fws.gov>, "Phillips, Catherine" <catherine_phillips@fws.gov>
> **Cc:** "Oetker, Michael" <Michael_Oetker@fws.gov>, "Barnhill, Laurel" <Laurel_Barnhill@fws.gov>, "Goessling, Shannon L" <shannon.goessling@sol.doi.gov>
> **Subject: URGENT - East Collier matter**
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> Larry/Catherine
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>
> Leo
>
> Leopoldo Miranda, Regional Director
> USFWS, South Atlantic-Gulf &
> Mississippi-Basin
> 404-679-4000
>
> Sent from my iPhone
>
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From: Miranda, Leopoldo
To: Williams, Larry O
Cc: Hinzman, Roxanna; Oetker, Michael; Barnhill, Laurel; Goessling, Shannon L; Phillips, Catherine; Cassler, Constance; Dell, David
Subject: Re: URGENT - East Collier matter
Date: Friday, February 21, 2020 2:26:55 PM

Thank you!

Leo

Leopoldo Miranda, Regional Director
USFWS, South Atlantic-Gulf &
Mississippi-Basin
404-679-4000

Sent from my iPhone

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From: Williams, Larry O <larry_williams@fws.gov>
Sent: Friday, February 21, 2020 3:11 PM
To: Hinzman, Roxanna <roxanna_hinzman@fws.gov>; Cassler, Constance <constance_cassler@fws.gov>
Subject: Fwd: URGENT - East Collier matter

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Larry

Sent from my iPhone

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> **Date:** February 21, 2020 at 2:33:53 PM EST
> **To:** "Williams, Larry O" <larry_williams@fws.gov>, "Phillips, Catherine" <catherine_phillips@fws.gov>
> **Cc:** "Oetker, Michael" <Michael_Oetker@fws.gov>, "Barnhill, Laurel" <Laurel_Barnhill@fws.gov>, "Goessling, Shannon L" <shannon.goessling@sol.doi.gov>
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From: Miranda, Leopoldo
To: Hinzman, Roxanna
Cc: Williams, Larry O; Oetker, Michael; Barnhill, Laurel; Goessling, Shannon L; Phillips, Catherine; Cassler, Constance; Dell, David
Subject: Re: URGENT - East Collier matter
Date: Friday, February 21, 2020 2:46:16 PM

Not sure the need for SOL in DC to be involved either. The two SESers in Atlanta (Shannon and I) should have the opportunity to find solutions before getting to DC. If it gets to DC before Shannon and I are involved, it may backfire and affect the process.

Leo

Leopoldo Miranda, Regional Director
USFWS, South Atlantic-Gulf &
Mississippi-Basin
404-679-4000

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Sent: Friday, February 21, 2020 3:11 PM
To: Hinzman, Roxanna <roxanna_hinzman@fws.gov>; Cassler, Constance <constance_cassler@fws.gov>
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Larry

Sent from my iPhone

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> **To:** "Williams, Larry O" <larry_williams@fws.gov>, "Phillips, Catherine" <catherine_phillips@fws.gov>
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> 404-679-4000
>
> Sent from my iPhone
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From:	Shannon Goessling
To:	Miranda, Leopoldo
Cc:	Hinzman, Roxanna; Williams, Larry O; Oetker, Michael; Barnhill, Laurel; Phillips, Catherine; Cassler, Constance; Dell, David
Subject:	Re: URGENT - East Collier matter
Date:	Friday, February 21, 2020 2:53:33 PM

Agreed!

Thank you !

Shannon L. Goessling
Field Special Assistant to the Secretary
Interior Region 2¦South Atlantic-Gulf
U.S. Department of Interior ¦Office of the Secretary

Regional Solicitor
Interior Region 2¦South Atlantic-Gulf & Interior Region 4¦Mississippi Basin
U.S. Department of the Interior ¦Office of the Solicitor

Richard B. Russell Federal Building
75 Ted Turner Drive, S.W., Ste. 304
Atlanta, Georgia 30303
(404) 331-5601 (direct)
(404) 331-4447 (main)
(202) 568-9654 (cell)
shannon.goessling@sol.doi.gov

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From: Williams, Larry O <larry_williams@fws.gov>
Sent: Friday, February 21, 2020 3:11 PM
To: Hinzman, Roxanna <roxanna_hinzman@fws.gov>; Cassler, Constance <constance_cassler@fws.gov>
Subject: Fwd: URGENT - East Collier matter

Rox, Connie,
Can one of you contact EPCO and pass this on to them please?

Thank you!

Larry

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> **From:** "Miranda, Leopoldo" <Leopoldo_Miranda@fws.gov>
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> **To:** "Williams, Larry O" <larry_williams@fws.gov>, "Phillips, Catherine" <catherine_phillips@fws.gov>
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Subject: URGENT - East Collier matter

Larry/Catherine

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Leo

Leopoldo Miranda, Regional Director
USFWS, South Atlantic-Gulf &
Mississippi-Basin
404-679-4000

Sent from my iPhone

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From:	Christian Spilker
To:	William Dove
Cc:	Leopoldo Miranda (leopoldo_miranda@fws.gov); Rob W. Tawes; David Dell; Larry Williams; Roxanna Hinzman; Catherine Phillips; Constance Cassler
Subject:	Meeting to discuss HCP project
Date:	Monday, February 24, 2020 4:11:14 AM

Dear Mr. Dove,

I wanted to thank you for your offer to meet and to clarify the nature of our request. The purpose of the meeting is to discuss the legal standard governing the determination of "effects of the action" in the biological opinion, under 50 C.F.R. 402.02, with respect to future offsite third party vehicle collisions with panthers. We requested the meeting after our counsel and the Regional Solicitor's office reached an impasse on the legal issue and agreed that resolution would likely require discussion with the Solicitor's Office in Washington. After we provided notice to the Region that we would be requesting a meeting, our counsel contacted the Solicitor's Office in Washington to ask for a meeting on the legal issue, and was asked to place the request in writing with brief background and include Director Skipwith in the request. All other aspects of the HCP review are pending with officials in the Southeast Region.

We look forward to discussing this matter in the hopes of reaching resolution and making progress toward implementation of the HCP.

Regards,

Christian Spilker
Senior Vice President of Land
Collier Enterprises

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From:	Christian Spilker
To:	William Dove
Cc:	Leopoldo Miranda (leopoldo_miranda@fws.gov); Rob W. Tawes; David Dell; Larry Williams; Roxanna Hinzman; Catherine Phillips; Constance Cassler
Subject:	[EXTERNAL] Meeting to discuss HCP project
Date:	Monday, February 24, 2020 4:11:33 AM

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From: acquanetta_reese@fws.gov on behalf of Miranda, Leopoldo
To: Oetker, Michael; Goessling, Shannon L; Williams, Larry O; Hinzman, Roxanna; Mott, Vicki V; Speights, Helen H; Barnhill, Laurel; Tawes, Robert; Merritt, Mimi M; Phillips, Catherine
Subject: Discussion: East Collier HCP

NOTE: This call may not run the full time allotted but blocked for planning purposes.

From: Merritt, Mimi M
To: Williams, Larry O; Goessling, Shannon L; Miranda, Leopoldo; Hinzman, Roxanna; Mott, Vicki V; Speights, Helen H; Reese, Acquanetta; Barnhill, Laurel; Maloof, Laura; Oetker, Michael; Tawes, Robert; Phillips, Catherine
Subject: Pre ECPO HCP Discussion (FWS and SOL Only)

We are using Ms. Goessling's call-in number for this conference call to avoid counsel and the applicant joining our call prematurely.

From:	Merritt, Mimi M
To:	Miranda, Leopoldo; Williams, Larry O; Hinzman, Roxanna; Mott, Vicki V; Speights, Helen H; Reese, Acquanetta; Barnhill, Laurel; Maloof, Laura; Oetker, Michael; Tawes, Robert; Phillips, Catherine; Goessling, Shannon L; aturner@hunton.com; eclements@hunton.com; cspilker@collierenterprises.com
Cc:	Mitch Hutchcraft; Johnson, Bruce; Tom Jones
Subject:	ECPO HCP Discussion