September 15, 2022 *sent via email*

Director Martha Williams
U.S. Fish and Wildlife Service
1849 C. St. NW
Washington DC, 20240

State Supervisor Larry Williams
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, FL 32960

Regional Administrator Daniel Blackman
U.S. Environmental Protection Agency
61 Forsyth Street SW
Atlanta, GA 30303

Secretary Shawn Hamilton
Florida Department of Environmental Protection
3900 Commonwealth Blvd. MS 49
Tallahassee, FL 32399

Director Eric Sutton
Florida Fish and Wildlife Conservation Commission
620 S. Meridian St.
Tallahassee, FL 32399

Re: Bellmar Development Application (Collier County) and Public Notice, #396364-001

Dear Director Williams, State Supervisor Williams, Regional Administrator Blackman, Secretary Hamilton, and Director Sutton:

On behalf of our respective organizations and our members, the Center for Biological Diversity, Conservancy of Southwest Florida, and Sierra Club are providing comment on the Bellmar project proposal that is being sought under the Florida Department of Environmental Protection (FDEP) state assumed 404 program (application #396364-001). This letter supplements our prior

correspondence on both the Bellmar project, as well as our comments provided regarding the Eastern Collier Multiple Species Habitat Conservation Plan (ECMSHCP). Please consider this letter as a request that FDEP hold a public meeting,[1] as well as a request that the US Environmental Protection Agency also hold a public meeting.[2]

We oppose authorization of this project and are asking you to deny the request for a section 404 permit because it will have unacceptable direct, indirect, and cumulative impacts on endangered and threatened species, wetlands, and other natural resources. This controversial project is within a flowway and key wildlife corridor, would directly impact over 1,700 acres, and is only approximately one mile away from the Florida Panther National Wildlife Refuge (FPNWR).

Further, it is apparent that the project will not meet the "no jeopardy" requirement of the Endangered Species Act and the state 404 permitting program, not only due to habitat loss, infringement of wildlife corridors, and indirect impacts on adjacent preserves, but also due to the impacts of traffic and transportation needs resulting from the Bellmar project, particularly in concert with cumulative impacts that are reasonably foreseeable.

Not only does Bellmar fail to meet the criteria for permit issuance under rule 62-331 F.A.C. and other requirements of Florida's state assumed 404 program, but it also would be inconsistent with the Endangered Species Act (ESA).

I. Bellmar Cannot Be Authorized Absent an Affirmative Demonstration that the Effects of the Authorization, Considered with Regard to Cumulative Effects, Are Not Likely to Jeopardize the Florida Panther

ESA Section 7 requires that "[e]ach Federal agency shall . . . insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species."[3] When EPA decided to allow FDEP to take over the 404 permitting, it relied on a programmatic Biological Opinion to purportedly satisfy its duties under ESA Section 7 to ensure against jeopardy.[4] Rather than analyze the impacts to species from EPA's decision, which included the effects of the permitting that would occur under the State 404 Program, that programmatic Biological Opinion relied on a structured process for technical assistance whereby the analysis would occur at the State program permitting stage instead, and would comply with the terms in the programmatic Biological Opinion, deferring the actual analysis of jeopardy. To comply with the programmatic Biological Opinion**,** the agencies must now consider all the indirect, direct, and cumulative effects of Bellmar and other reasonably foreseeable development to ensure the project will not jeopardize listed species, including the Florida panther. As outlined below, because these effects, when added to the environmental baseline, are likely to jeopardize the Florida panther, the agencies cannot authorize Bellmar.

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[1] 62-331.060, Florida Administrative Code.
[2] 62-331.052, Florida Administrative Code.
[3] 16 U.S.C. § 1536(a)(2).
[4] CSWF, CBD, Sierra Club and others are currently challenging the lawfulness of that approach in court, and in no manner waive the claims, issues, or arguments raised in that litigation.

A. The agencies must consider the impact of the Bellmar project with the cumulative effects of other reasonably foreseeable development that will be authorized under the State 404 program and will affect ESA-listed species and habitats in the areas affected by the Bellmar project.

The "no jeopardy" conclusion in the Biological Opinion for EPA's approval of the Florida State 404 program (404 Programmatic BiOp) relies on the "structured process" established pursuant to the Memorandum of Understanding (MOU) between FDEP, the Florida Fish and Wildlife Conservation Commission (FWC), and the U.S. Fish and Wildlife Service (FWS) to avoid jeopardy,[5] which characterizes that structured process as being "as protective" as ESA section 7 consultation.[6] For that to be the case, the jeopardy determination for any given permit would have to consider the effects of the permitted activity cumulatively with other reasonably foreseeable non-federal actions, which here would necessarily include other reasonably foreseeable State 404 permits affecting the same area affected by the permit at issue.

An ESA section 7 analysis of effects would require consideration of cumulative effects. ESA regulations state, "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."[7] "Action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action."[8] Effects include "all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action."[9] "A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action."[10]

With regard to how cumulative effects will be considered in making the effects determinations pursuant to the "structured process," the 404 Programmatic BiOp states: "The USFWS evaluation of the likelihood that a permit action may jeopardize a species or adversely modify critical habitat will take into account the effects of any unrelated non-federal actions occurring in the project area, similar to the way a cumulative effects analysis is conducted under section 7 of the ESA."[11] The BiOp states that State 404 permit applications must include: "Analysis of any cumulative effects, which are the effects of future State or private activities that are reasonably

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[5] U.S. Fish and Wildlife Service, Programmatic Biological Opinion for U.S. Environmental Protection Agency's Approval of FDEP's Assumption of the Administration of the Dredge and Fill Permitting Program under Section 404 of the Clean Water Act (hereafter "404 Programmatic BiOp"), at 68–69.
[6] 404 Programmatic BiOp at 56.
[7] 50 C.F.R § 402.02.
[8] 50 C.F.R § 402.02.
[9] 50 C.F.R § 402.02.
[10] 50 C.F.R § 402.02.
[11] 404 Programmatic BiOp at 20. *See also id*. at 25 ("The USFWS evaluation of the likelihood that a permit action may jeopardize a species or adversely modify critical habitat will take into account the effects of any unrelated non-federal actions occurring in the project area, similar to the way a cumulative effects analysis is conducted under section 7 of the ESA.").

certain to occur within the project area."[12] It defines "project area" to mean: "a portion of the State-assumed waters where specific dredging or filling activities are permitted and consist of a bottom surface area, any overlying volume of water, and any mixing zones," but specifies that, "In the context of the review of State 404 permit applications for endangered and threatened species, also includes those areas outside the immediate area of activity which may affect listed species using those areas."[13]

With regard to how jeopardy will be evaluated as part of the "structured process," the 404 Programmatic BiOp states that, "the USFWS's project-specific, species-specific, review of the likelihood that a permit action may jeopardize a species or adversely modify critical habitat will take into account the effects of any unrelated non-federal actions occurring in the project area, similar to the way a cumulative effects analysis is conducted under section 7 of the ESA."[14] "Assessment of adverse cumulative impacts must be considered during the review of State 404 permit applications; the assessment of expected impacts to species that may be caused from a particular project must be considered along with the impacts that may have been caused from past authorized projects, as well as those future projects that are reasonably certain to occur."[15]

Reasonably foreseeable activities requiring authorization under the State 404 Program seemingly are non-federal actions, and therefore in making jeopardy determinations for each State 404 Program permit, their effects in the area affected by the permit application at issue must be considered as cumulative effects and added on top of the baseline when considering whether the effects of the permit are likely to cause jeopardy.

The cumulative impacts proposed by this applicant and others, which are pending or otherwise reasonably foreseeable, are extreme. These impacts include, but are not limited to, the 45,000 total acres of mining and development that were pursued under the ECMSHCP for over twelve years.

As of the date of this letter, Rural Lands West (about 4,000 acres), Bellmar (about 1,790 acres), and Hogan West (640 acres)[16]—approximately 6,430 acres of the remaining 39,973 acres unpermitted but previously considered under the ECMSHCP—are now pending before the FDEP state 404 program. Additionally, the Barron Collier Rod and Gun Club, an approximately 895-acre project that proposes impacts within the ECMSHCP development and "preserve" area, including golf courses, shooting ranges, and residential estates within a panther corridor, was recently active with FDEP for verification that no state 404 permit was needed.[17] In their withdrawal letter, the applicants state that they soon intend to apply for the FDEP state 404 permit.

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[12] 404 Programmatic BiOp at 16.
[13] 404 Programmatic BiOp at vii.
[14] 404 Programmatic BiOp at 66 (discussing cumulative effects of EPA assumption decision).
[15] 404 Programmatic BiOp at 21.
[16] Of Rural Lands West's impact acres, 3100 acres are with Primary Zone panther habitat. All of Bellmar is within the Primary Zone. Of Hogan West's (AKA Brightshore) impact acres, 211 of these acres within Primary Zone. The remainder of these projects are within Secondary Zone panther habitat.
[17] Barron Collier withdrew its request for FDEP's action on May 20, 2022, stating that "we intend to apply for a SFWMD ERP and FDEP 404 permit later in the summer."

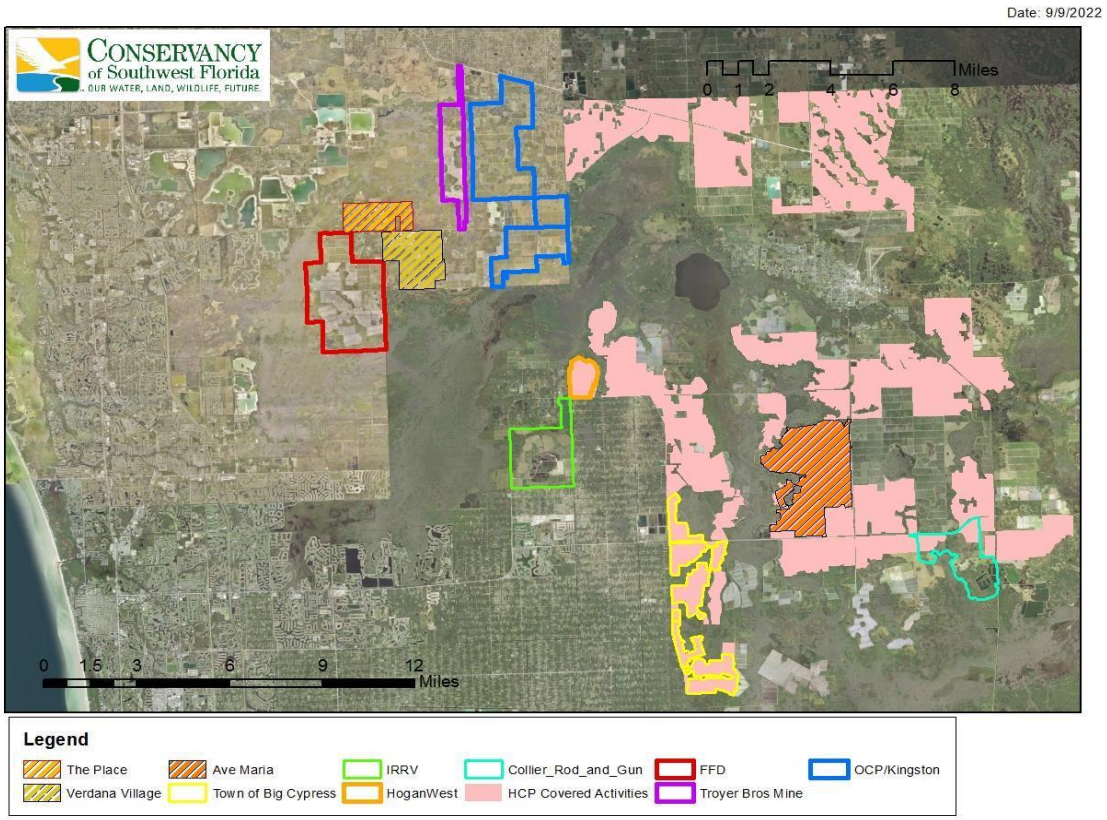
Therefore, projects put forth in the ECMSHCP are reasonably foreseeable and thus must be considered by FDEP under the cumulative impacts analysis. It is clear, by advancing the Rural Lands West and Bellmar projects with the U.S. Army Corps of Engineers' 404 program and now the state-assumed 404 program, that the landowners intend to pursue their developments regardless of whether the ECMSHCP is completed. Moreover, since the 404 Programmatic BiOp purports to provide authorization for incidental take to State 404 permittees, it is reasonably foreseeable that the other developments under the Covered Activities will proceed via the State 404 program.

Additional developments, not covered by the now-withdrawn ECMSHCP but located within the same critical panther areas, are also under consideration by FDEP. The Immokalee Road Rural Village is adjacent to Hogan West and the ECMSHCP boundary. The project is 2,780 acres, with 676 acres that are Primary Zone panther habitat and the remainder Secondary Zone panther habitat. It is situated between the 7,000+ acre Bird Rookery Swamp and the Collier County Panther Walk Preserve, as well as the state protected lands of the Corkscrew Regional Ecosystem Watershed (CREW). The wetland ecosystems constitute travel ways for large mammals, and the project site is adjacent to one of the deadliest areas for Florida panthers. The proposed project includes the construction of a rural village on a 2,787-acre site within the Rural Fringe Mixed Use area of Collier County. Per the applicant's 404 permit application, the proposal includes a mixed-use development consisting of residential, commercial uses, and civic/institutional, with associated infrastructure, amenities, and stormwater management system. The applicant proposes to construct over 4,000 residential units: 2,842 single family residential homes and up to 1,200 multi-family residential units.

Eastern Lee County, adjacent to the ECMSHCP boundary, has also experienced extreme development pressure. The projects known as FFD, Troyer Mine, and Kingston (FKA Old Corkscrew Plantation) would directly destroy 2,573 acres of Primary Zone panther habitat, and directly and indirectly impact about 7,400 acres of Adult Breeding Habitat for panthers.[18]

Project[19]	**Homes**	**Residents**	**Panther habitat**	**Primary Zone**	**Wetland direct**
Rural Lands West	5,100	10,496	4,000 ac	3,100 ac	311 ac
Bellmar	4,132	8,683	1,790 ac	1,790 ac	135 ac
Collier Rod and Gun Club	225	583	895 ac	895 ac	TBD
Hogan West	2,000	4,893	640 ac	211 ac	21 ac
Immokalee Road Rural Village	4,042	9,874	2,780	676 ac	244 ac
Troyer Mine	0	0	907 ac	841 ac	214 ac
Kingston	10,000	25,800	6,676 ac	1,177 ac	12 ac
FFD	5,208	13,436	2,596 ac	555 ac	79 ac
Totals	**30,707**	**73,7652**	**20,284 ac**	**9,245 ac**	**1,016 ac**

[18] Conservancy of Southwest Florida, August 2, 2022. Letter to FDEP, FWC, and USFWS regarding Troyer Mine state 404 permit, citing modeling analysis by Dr. Robert Frakes.
[19] Selection of state 404 applications. Estimates based on best available information at time of drafting of this letter.

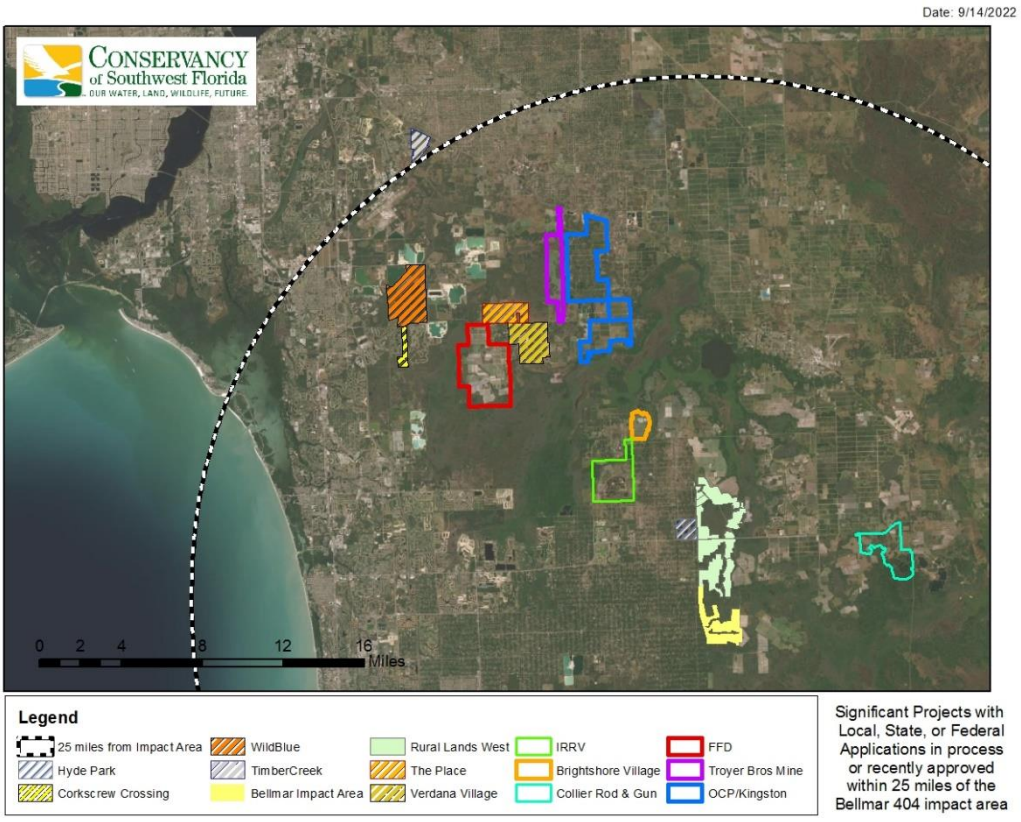


Additionally, Florida Power and Light Beautyberry Solar Energy Center is a proposed approximately 2,200-acre project located in Primary Zone panther habitat in Hendry County.[20] A proposed widening of State Road 82 would widen SR 82 for 23 miles to expand the road from two lanes to four lanes (and ultimately, to six lanes) through Lee, Hendry and Collier Counties. The segment between the Collier County line and Gator Slough is under review by FDEP for a proposed state 404 permit. The continuous flow intersection at the center of the first of seven parts of this project is expected to average about 2,700 cars per hour, more than a conventional intersection can handle. The road runs north of and adjacent to important public lands and panther habitat such as the Wild Turkey Preserve, Corkscrew Mitigation Bank, and Pepper Ranch Preserve.[21] Daniel's Parkway South is a proposed mixed-use development in the DR/GR area of Lee County requesting 1,600 residences and 350,000 sq ft of commercial development on 1,233 acres. Of those 1,233 acres, 944.5 acres are primary panther habitat. There is also a proposal to widen 18 miles of SR 29 from Collier County to Hendry County from the existing two lanes to four lanes. Traffic volumes on SR 29 are projected to increase from 6,200 vehicles per day to 23,800 vehicles per day by the year 2035. The road widening project is adjacent to or

[20] FDEP Oculus file for application #419224-002.
[21] WFTX Digital Team, New Continuous Flow Intersection now open in Lehigh Acres (Jul. 9, 2019 6:37 AM), https://www.fox4now.com/news/local-news/continuous-flow-intersection-now-open-in-lee-county; Florida Department of Transportation, State Road (SR) 82 from Hendry County Line to Gator Slough Lane, Collier County Resurface/Add Lanes Financial Project No. 430848-1-51-01(last visited Jul. 15, 2021), http://www.swflroads.com/sr82/hendrytogatorslough/; No. 9 - S.R. 82 From Lee Boulevard to 40th Street, Roads & Bridges (last visited July 15, 2021), https://www.roadsbridges.com/no-9-sr-82-lee-boulevard-40th-street; FDOT, Project description, Project ID 425841-3, http://www.sr82design1.com/ (last visited Jul. 15, 2021).

near major public lands and habitat.[22] Additionally, a proposed widening of Snake Road in Hendry County would involve approximately eight miles that cross 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.[23]

Notably, lands within the action area of the Bellmar project have already been eaten away by development over recent years, particularly in eastern Lee County. Though we highlight just a handful of projects here, the habitat losses have been substantial. Wildblue Residential Development (2015), Corkscrew Crossing (2018), The Place (FKA Corkscrew Farms) (2016), Verdana Village (2020), and Hyde Park (2020), have resulted in 11,600 acres of panther habitat loss.[24] The agencies must consider the impacts of the current proposal and reasonably foreseeable development combined with the impacts of these developments.



[22] Florida Department of Transportation, SR 29 - SR 82 to County Line (last visited Jul. 15, 2021), http://www.swflroads.com/sr29/sr82tocountyline/; FDOT, SR 29 from North of New Market Road North to SR 82 (last visited Jul. 15, 2021), http://www.swflroads.com/sr29/newmarkettosr82/; FDOT, SR 29 from CR 846 E to North of New Market Road N (last visited Jul. 15, 2021), http://www.swflroads.com/sr29/cr846tonewmarket/; FDOT, SR 29 Design from South of Agriculture Way to CR 846 E (last visited Jul. 15, 2021), http://www.swflroads.com/sr29/agriculturetocr846/; FDOT, SR 29 from Sunniland Nursery Road to South of Agriculture Way (last visited Jul. 15, 2021), http://www.swflroads.com/sr29/sunnilandnurserytoagriculture/; Tony Sherrard (FDOT), S.R. 29 PD&E Study From North of S.R. 82 to South of C.R. 80A (last visited Jul. 15, 2021), http://swflroads.com/sr29/northof82/Images/Hearing%20Handout.pdf

[23]Tara Backhouse, Snake Road Construction!, Seminole Tribe of Florida Ah-Tah-Thi-Ki Museum Blog (Feb. 6, 2011), https://ahtahthiki.wordpress.com/2011/02/16/snake-road-construction/.

[24] Date of US Fish and Wildlife Service Biological Opinion for each project provided.

B. The agencies must address FWS's prior analysis showing that the combined effects of the Bellmar project and other planned development in eastern collier county will cause jeopardy to the Florida panther.

FWS has previously made draft determinations indicating that the effects of authorizing the Bellmar project in combination with other development in Eastern Collier County, and other reasonably foreseeable impacts, will jeopardize the Florida panther. The Bellmar project was one of multiple proposed developments from the Eastern Collier Property Owners ("ECPO") seeking an ESA section 10 Incidental Take Permit ("ITP") in reliance on their proposed Eastern Collier Multi-Species Habitat Conservation Plan ("ECPO HCP"). According to a recent statement by FWS:

> The first full draft of the HCP was received on April 22, 2015. Modifications to the original HCP were received by the Service on October 14, 2017, April 6, 2018, April 23, 2018, August 22, 2018, March 8, 2019, March 25, 2019, and September 17, 2019 (HCP Addendum). Also, a modification to the original ITP application was received on September 9, 2019.[25]

According to FWS, the ECPO applicants submitted a letter to FWS to withdraw their ITP applications on July 28, 2022.[26] While the letter indicates the ECPO applicants wish to withdraw their ITP application, it confirms that the applicants will "move forward case-by-case on [their] individual projects" within the HCP area through "project-specific reviews," with some already in that process and others "fast approaching."[27] While not explicitly stated in the letter, the project-specific reviews the ECPO applicants are referring to apparently are state-assumed Clean Water Act Section 404 permitting and associated reviews through the technical assistance process, not ESA section 7 consultations. Following the ECPO applicants' withdrawal, FWS stated that, "[a]t the time of withdrawal, the Service had not made a final determination regarding jeopardy or non-jeopardy for any of the covered species."[28] Nonetheless, FWS's analyses in publicly available draft Biological Opinions for the proposed ITPs under the proposed ECPO HCP indicate that the combined effect of the proposed ECPO developments would cause jeopardy to the Florida panther. FWS has publicly released two draft Biological Opinions dated from December 2020 and December 2021, respectively.[29] The December 2020 draft BiOp indicates that it is based on an iteration of the HCP from January 28, 2020, whereas the December 2021 draft BiOp indicates that it is based on that version of the HCP "plus subsequent addenda."[30]

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[25] U.S. Fish & Wildlife Service, East Collier Multi-Species ITP/HCP Withdrawal, (posted Sept. 1, 2022) https://www.fws.gov/library/collections/east-collier-multi-species-itphcp-withdrawal (last accessed Sept. 9, 2022).
[26] *See id. See also* Eastern Collier Property Owners Letter to USFWS dated 07/28/2022 Withdrawing their Incidental Take Permit applications, *available at* https://www.fws.gov/media/eastern-collier-property-owners-letter-usfws-dated-07282022-withdrawing-their-incidental-take.
[27] *Id.* at 2–3.
[28] U.S. Fish & Wildlife Service, East Collier Multi-Species ITP/HCP Withdrawal, (posted Sept. 1, 2022) https://www.fws.gov/library/collections/east-collier-multi-species-itphcp-withdrawal (last accessed Sept. 9, 2022).
[29] It is our understanding that there is a 2022 draft of the BiOp, but we do not currently have public access to a copy.
[30] *Compare* Biological Opinion and Conference Opinion, Eastern Collier Multi-Species Habitat Conservation Plan (filename "20201229_draft BO-CO-ECMHCP_for ECPO.pdf") (hereafter "2020 draft HCP BiOp") at 1 [submitted with these comments for inclusion in the administrative record] *to* Biological Opinion and Conference Opinion

A February 24, 2021 letter from the ECPO ITP applicants to FWS regarding the December 2020 draft Biological Opinion ("BiOp") makes clear their understanding that the draft BiOp concluded that absent additional commitments from the ITP applicants to "fund public roadway improvement projects (wildlife crossings and fencing) and 'capture' traffic within future community developments," the additional panther mortality from vehicle collisions due to increased traffic induced by the proposed developments "would cause jeopardy."[31]

Indeed, the December 2020 draft HCP BiOp makes clear that, even taking into account the proposed mitigation measures under the draft ECPO HCP, the proposed ECPO developments would result in a statistically significant increase in the risk of extinction for the Florida panther, with a net loss of 12 panthers per year at full build-out.[32] The December 2020 draft HCP BiOp found that the risk of extinction with the HCP increased to 5.7%, compared to an extinction risk of approximately 1.1% or 1.38% without it.[33] The December 2020 draft HCP BiOp then explained that to sufficiently reduce the increased risk of extinction so that it was no longer a statistically significant increase, additional mitigation measures and/or changes to the proposed developments to increase internal capture rates for traffic or otherwise reduce impacts would be required.[34] The 2020 draft HCP BiOp stated:

> If the Applicants are able to achieve a greater than 50 percent community (internal) capture rate, further reduce the effects of their action, or mitigate them through use of the Marinelli Fund for habitat restoration to the extent that the net effect is a loss of no more than 10 adult panthers (4 female adult panthers)/year above present (from all causes) our analysis finds the probability of extinction falls from 5.7 percent to 1.4 percent. This probability of extinction is within the 95 percent C.I. [confidence interval] of scenarios where no additional panthers are taken above present (i.e., not significantly different from baseline).[35]

The next paragraph in the December 2020 draft HCP BiOp indicates that a "no jeopardy" conclusion is contingent on finding that a "further net reduction of effects to *fewer than* 10 panthers per year at full build-out" will "be accomplished through the maintenance of high community (internal) trip capture, adaptive management, and the mitigative effects of actions

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Eastern Collier Multi-Species Habitat Conservation Plan (filename DRAFT-USFWS-ECPO-full-Biological-Opinion-December-2021.pdf) (hereafter "2021 draft HCP BiOp") at 1 [submitted with these comments for inclusion in the administrative record].

[31] "ECPO's High-Level Comments on Draft BO" at 12, transmitted to Robert Tawes Chief, Environmental Review Division, U.S. Fish and Wildlife Service, Southeast Region by Bruce Johnson, Principal, Senior Scientist , Stantec Consulting Services, as attachment to letter dated February 24, 2021. (Obtained from FWS via FOIA) [submitted with these comments for inclusion in the administrative record]; *see also* Email from Leopoldo Miranda, Regional Director, FWS, to Jack Arnold, Acting Assistant Regional Director, FWS, regarding a Revised ECPO Information Memorandum (June 5, 2019) (quoting a draft information memorandum stating, "We have also begun frank discussions with ECPO, most recently May 10 and 14, based on the Service's preliminary, internal analyses of traffic volume effects on the continued survival or recovery of the Florida panther.") [submitted with these comments for inclusion in the administrative record].

[32] Biological Opinion and Conference Opinion, Eastern Collier Multi-Species Habitat Conservation Plan (filename "20201229_draft BO-CO-ECMHCP_for ECPO.pdf") (hereafter "2020 draft HCP BiOp") at 158–159.

[33] *Id*. at 158–159.

[34] *See id*. at 159.

[35] *Id*. at 159.

facilitated by the Marinelli Fund."[36] In short, the December 2020 draft HCP BiOp shows that the combined impacts of the proposed ECPO developments would cause jeopardy to the Florida panther absent additional changes to the design or additional mitigation measures to reduce the anticipated number of annual panther losses caused by implementing the proposed covered activities.

The December 2021 draft HCP BiOp similarly states:

> [O]ur PVA [population viability analysis] predicts the implementation of the HCP, in the absence of further actions to reduce the impact of the action to the panthers, could reduce the abundance of panthers across their range such that the probability of extinction is predicted to increase from 1 percent (95 percent C.I. 0.2 to 1.8 percent) to 5.7 percent (95 Percent C.I. 2.2 to 9.2 percent). When cumulative effects are added to the effects of the HCP the probability of extinction further increases to 6.6 percent (95 percent C.I. 2.3 to 10.9 percent). The probability of extinction after implementation of the HCP is statistically significantly different than baseline conditions. If the Applicants are able to achieve a greater than 50 percent community (internal) traffic capture rate, further reduce the effects of their action, or mitigate them through use of the Marinelli Fund for habitat restoration to the extent that the net effect is a loss of no more than 10 adult panthers (4 female adult panthers)/year above present (from all causes) our analysis finds the probability of extinction falls from 5.7 percent to 1.4 percent. This probability of extinction is within the 95 percent C.I. of scenarios where no additional panthers are taken above present (i.e., not significantly different from baseline).[37]

Notably, whereas the draft HCP BiOps both state that additional panther losses must be limited to "no more than 10" per year over present levels, other portions of the draft HCP BiOps indicate that the number actually must be *fewer than* 10 over present levels to avoid a statistically significant increase in extinction risk.[38]

Just like the 2020 draft HCP BiOp, the modeling in the 2021 draft HCP BiOp finds that, even with 8 wildlife crossings *and* assuming a 50% internal capture rate for traffic, implementation of the HCP will cause a total of 12 additional panther deaths per year, 8 from vehicle collisions resulting from increased traffic induced by the HCP developments, and 4 from habitat loss and

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[36] 2020 draft HCP BiOp at 159 (emphasis added).
[37] 2021 draft HCP BiOp at 148.
[38] *See* 2020 draft HCP BiOp at 146 ("Internal population viability analysis contingency modelling, and statistical comparison of possible thresholds found that the probability of extinction 100 years after ITP expiration of BSLR, BSLR + HCP, and BSLR + HCP + CE scenarios do not differ significantly (1.38 percent Prext versus the 1.1±0.8 percent Prext estimated for BSLR) *if fewer than* 10 adult panthers (4 female panthers) total are taken annually, above present.") (emphasis added); 2021 draft HCP BiOp at 133–134 ("Our analysis of these PVAs found that though there was still a difference in final abundances, the probability of extinction 100 years after ITP expiration does not differ significantly from Baseline + Sea Level Rise (1.38 percent Prext versus the 1.1±0.8 percent Prext estimated for BSLR) *if fewer than* 10 adult panthers (4 female panthers) total are lost annually, above present, from any cause (*e.g.,* habitat loss, roadway mortality, etc.).") (emphasis added).

degradation.[39] And both the 2020 and 2021 BiOps find that the cumulative effects of traffic induced by other non-HCP, non-federally authorized actions will cause an additional 2 panther deaths per year, even after accounting for the mitigation provided by 8 wildlife crossings.[40] In sum, both versions conclude that the additional panther deaths associated with implementation of the HCP will be 12 per year, and that such panther losses must be limited to fewer than 10 per year to avoid a statistically significant increase in the risk of extinction (i.e. jeopardy). Both versions indicate that additional changes to the proposed HCP, such as commitments to achieve internal capture of traffic greater than 50% and/or additional commitments for mitigation, would be necessary to conclude that the panther losses will be reduced to 10 or fewer.

Based on the available records, there appears to be no indication that the HCP applicants further modified their project designs or mitigation commitments to achieve the necessary reductions in the number of additional panther losses per year.[41] Consequently, the Service's draft analyses appear to indicate that, absent additional changes to the project designs to increase internal capture above 50% or commitments for additional avoidance or mitigation of impacts, the combined impacts of the Bellmar project and the other projects formerly part of the proposed HCP, will result in total panther losses that are likely to cause jeopardy to the Florida panther.

This result is especially concerning because the 2020 and 2021 draft HCP BiOps reflect multiple assumptions that result in underestimating the risk of extinction, as detailed below in section **I.C**.

C. The 2020 and 2021 draft HCP BiOps underestimate the risk of extinction for Florida Panthers and the impacts of the HCP Covered Activities, which include the Bellmar project, on that risk.

Although FWS's analyses in the 2020 and 2021 draft HCP BiOps raise legitimate concerns that the cumulative effects of the Bellmar project and other proposed projects will jeopardize the Florida panther, even these analyses underestimate the harm to the species and the extent of projected jeopardy by relying on unsupported assumptions. To accurately and lawfully consider the direct, indirect, and cumulative effects of Bellmar on the panther and other listed species, the agencies must first address these problematic assumptions.

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[39] *See* 2020 draft HCP BiOp at 153, lines 5444-5447; 2021 draft HCP BiOp at 142, lines 5055-5057.

[40] *See* 2020 draft HCP BiOp at 153; 2021 draft HCP BiOp at 142.

[41] In contrast to the Florida panther opinion section from the 2020 draft HCP BiOp, the 2021 draft HCP BiOp omits a paragraph indicating that a no jeopardy conclusion hinged on additional changes such as assuring greater internal capture of traffic or committing to additional impact reductions or mitigation. In its place is a paragraph indicating that instead of actually specifying the changes to the HCP necessary to ensure greater internal capture rates above 50%, or to ensure commitments to undertake specific additional avoidance or mitigation measures, the Service may have intended to rely on "adaptive management measures" added to the conditions in yet unidentified permit terms to somehow provide an avenue for additional impact reduction post-permit issuance. *Compare* 2021 draft HCP BiOp at 148 *to* 2020 draft HCP BiOp at 159. Notably, in ESA contexts, courts have found that the Service unlawfully relied on "adaptive management" in lieu of specific measures or specific criteria to ensure satisfaction of ESA standards. *See, e.g.*, *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1025–28 (9th Cir. 2011) (reliance on "adaptive management" to justify delisting grizzlies in the face of substantial uncertainty about extent of impacts on population from harmful factor was unlawful given lack of specific criteria to address that factor).

1. **In estimating extinction risk resulting from implementation of the HCP, the draft HCP BiOps assume that the developments under the HCP's Covered Activities will result in 50% internal capture, despite evidence indicating actual internal capture rates as low as 2% for proposed projects.**

In estimating the impacts to panthers from increased traffic that would be induced by implementation of the HCP, the modeling in both the 2020 and 2021 draft HCP BiOps *assumes* that the developments under the Covered Activities will have a 50% internal capture rate. That assumption was based on the assertion that "future developments proposed in the HCP would have daily internal trip capture rates similar to the community of Ave Maria" which FWS asserted "approaches 50 percent."[42] Despite adopting that assumption in the modeling, the 2020 draft HCP BiOp conceded that:

> [R]ecent proposals for residential communities submitted by the Applicants to Collier County in the Plan Area indicate some communities being planned *will achieve an internal capture rate of 2 percent* as indicated by the Applicants' planning documents. If developments that don't achieve the internal capture rate of Ave Maria are constructed, it is likely the traffic model will underestimate future traffic volume generated by development proposed in the HCP, and thus the total impact the proposed developments may have on panthers. If the Applicants build communities with a lower internal capture rate, but still use the $12.5 million to construct crossings (*e.g.,* 8 crossings are constructed), we would nonetheless expect higher panther mortality due to greater traffic on existing roads (Tables 13a and 13b in Appendix I).[43]

In other words, the 2020 draft HCP BiOp conceded that, even if 8 wildlife crossings were built, its model would underestimate the actual impacts to panthers if the proposed developments under the HCP's Covered Activities did not actually achieve 50% internal capture. When paired with the reality that at least some of those proposed developments would apparently achieve a mere 2% internal capture rate, FWS clearly underestimated projected impacts for the panther. The 2021 draft BiOp similarly states:

> One of the more important assumptions made when the traffic model was produced was that future developments proposed in the HCP would have daily internal trip capture rates similar to the community of Ave Maria, which approaches 50 percent. *However, recent proposals for residential communities submitted by the Applicants to Collier County in the Plan Area indicate some communities being planned will achieve an internal capture rate of 2 percent as indicated by the Applicants' planning documents.* If developments that don't achieve the internal capture rate of Ave Maria are constructed, it is likely the traffic model will underestimate future traffic volume generated by development

[42] 2020 draft HCP BiOp at 129; *see also* 2021 draft BiOp at 42 ("Specifically, we assumed such metrics as future housing density, number of people per dwelling, employment, and daily vehicle trips per household would be similar to what is currently exists in the Town of Ave Maria.").
[43] 2020 draft HCP BiOp at 129–130 (emphasis added).

> proposed in the HCP, and thus the total impact the proposed developments may have on panthers.[44]

And the 2021 draft HCP BiOp further states:

> [I]t is possible future developments will have a lesser internal traffic capture rate, higher dwelling unit density, and higher number of residents per dwelling unit than the Town of Ave Maria, which was a template for future development proposed in the HCP when we estimated how much traffic would likely be generated on existing roadways. If this were to occur, we would expect to see greater traffic volume and effects to panthers than we have estimated in this BO.[45]

Nonetheless, neither BiOp indicated that FWS intended to provide any binding requirement that would actually ensure internal capture of at least 50%. Nor does either BiOp assert that the HCP itself provides plan components that would result in at least 50% internal capture. Instead, maintaining at least 50% internal capture is merely suggested as a conservation *recommendation*.[46] Thus, the BiOp's estimates that implementation of the HCP would result in 12 panther deaths per year, with 8 of those deaths resulting from increased traffic, are based on an assumption about internal capture that was not supported by actual internal capture rates, nor assured by any binding requirement, nor incorporated as a fixed feature of the proposed action.[47] And the PVA modeling used to reach conclusions about extinction risk from implementation of the HCP were based on the similarly assumed 12 panther deaths per year from the HCP, with 8 from increased traffic, based on the internal capture rate of 50% and 8 crossings.

Importantly, both of the draft HCP BiOps do contain analyses showing how lower internal capture rates increase the number of panther fatalities per year that would result from the HCP

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[44] 2021 draft HCP BiOp Appendix H (Analysis of Panther Motor Vehicle Mortality) at 7 (emphasis added).
[45] 2021 draft HCP BiOp at 136.
[46] *See* 2021 draft HCP BiOp at 310 (suggesting maintaining internal capture of at least 50% as a conservation recommendation); 2020 draft HCP BiOp at 320 (same); 2020 draft HCP BiOp at 130 ("…the HCP *does not identify explicit targets for internal trip capture*, a maximum number of crossings, where they will be located, or what measures they are likely to take to maximize their effectiveness. Thus, our analysis remains confined to the assumption of 50% internal trip capture in newly constructed communities and the construction of a minimum of 8 wildlife crossings.") (emphasis added).
[47] Consequently, reliance on that assumption of 50% internal capture to reach a no jeopardy conclusion would violate the ESA because achievement of that rate was not reasonably certain to occur based on the record before FWS, and apparently was not assured by any binding requirement or component of the plan. *See, e.g., Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv*., 524 F.3d 917, 935–36 (9th Cir. 2008) (requiring measures relied on to reach no jeopardy conclusion be set forth in specific and binding plans). The ESA's express requirement to "insure" that agency actions are not likely to cause jeopardy, 16 U.S.C. § 1536(a)(2), plainly requires that the Services cannot reach a no jeopardy conclusion that relies on mitigation offsetting harm unless there is reasonable certainty that the mitigation will actually render jeopardy unlikely. As the Supreme Court has recognized in construing section 7(a)(2), "To 'insure' something…means '[t]o make certain, to secure, to guarantee (some thing, event, etc.).'" *Nat'l Ass'n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644, 667 (2007) (quoting appellate court, in turn quoting Oxford English Dictionary 1059 (2d ed.1989)). The plain text of the Act therefore requires that the Service cannot issue a no jeopardy conclusion unless the action agency has indeed made it certain, secured, or guaranteed that mitigation relied upon to avoid jeopardy will actually occur.

developments at a given number of wildlife crossings.[48] That analysis indicates, for example, that assuming 8 wildlife crossings added by the HCP, an internal capture rate of 30% would add approximately three more panther deaths per year than an internal capture rate of 50%.[49] That analysis also shows how the total number of panther fatalities from the HCP and cumulative effects would change with lower internal capture rates.[50]

However, the BiOps do not include any modeling to estimate the extinction risk from the HCP associated with internal capture rates under 50%. This is critical where, to the extent the applicants are working to increase the internal capture rate by merging Bellmar into the larger Rural Lands West project, there is no data to suggest it would reach the 50% threshold set forth in the draft HCP BiOps.

Consequently, in evaluating whether the Bellmar project, considered with the cumulative effects of other reasonably foreseeable state and private actions (such as the other former HCP projects and the cumulative effects in the draft HCP BiOps), will likely cause jeopardy to the Florida panther, the agencies must consider what the actual internal capture rates of the projects will be, and how those capture rates will affect the total additional panther mortalities that will foreseeably result from the developments.

2. The draft HCP BiOps underestimate the impacts on panthers by underestimating the amount of traffic induced by the developments covered under the draft HCP.

In the 2021 draft HCP BiOp Appendix B.1 "Description of the Traffic Model," the Service attempts to estimate a density for proposed development to estimate a likely population in the eastern Collier area. The Service estimates that the Town of Ave Maria is 1.4 units per acre and uses that as the basis to assume "a comparable residential unit density on the remaining 39,973 acres proposed for development."[51] The resulting population estimate is approximately 152,000 people. However, the Bellmar project, and the other locally approved projects, have an average density of 2.6 development units per acre and an average of 2.5 people per household.[52] With a

[48] *See* 2020 draft HCP BiOp Appendix I at Table 2a [2020 draft HCP BiOp Appendices submitted with these comments for inclusion in the administrative record]; 2021 draft HCP BiOp Appendix H at Table AH2a [2021 draft HCP BiOp submitted with these comments for inclusion in the administrative record].
[49] *See* 2020 draft HCP BiOp Appendix I at Table 2a; 2021 draft HCP BiOp Appendix H at Table AH2a.
[50] *See* 2020 draft HCP BiOp Appendix I at Table 13b; 2021 draft HCP BiOp Appendix H at Table AH2b.
[51] 2021 draft BiOp at Appendix B.1.
[52] Average density for the components of Rural Lands West is 2.6 development units per acre (per Approved Town Agreement between Collier County Board of County Commissioners and Collier Land Holding, LLC/CDC Land Investments, LLC, dated June 8, 2021. And respective Village approvals, Collier County Resolution 2021-119, Collier County Resolution 2020-24). Density for Bellmar Village (a portion of state 404 footprint) is 2.75 development units per acre (per Collier County Resolution 2021-120). Other projects such as Hogan West (AKA Brightshore Village) have a projected density of 2.9 development units per acre (per Brightshore Village SRA Development Document for Collier County SRA Application, June 29, 2022). Of the seven Stewardship Receiving Areas (SRA) approved and pending in eastern Collier County, the average density is 2.6 development units per acre. The average persons per household in Collier County is 2.54 based on Census information accessed at https://www.census.gov/quickfacts/fact/table/colliercountyflorida,US/HCN010217.

more realistic density, the projected estimate for the 'new' population within the 45,000 acres of the eastern Collier area would be closer to 300,000+ people.[53]

This underestimation of human population -and the number of cars on roadways- within Bellmar and other reasonably foreseeable development can also be found when looking at the Economic Assessments provided to Collier County. The assessments for Rural Lands Wests, Bellmar, Hogan West, and others have averaged around 6.7 people per acre, which again estimates the population for the eastern Collier developments at around 300,000 people.[54]

3. The draft 2021 HCP BiOp underestimates cumulative effects by failing to update the analysis in light of Florida's assumption of Clean Water Act 404 permitting.

Both the 2020 and 2021 draft HCP BiOps use the same assumptions about future non-HCP, non-federal actions in their modeling of cumulative effects. Both draft HCP BiOps assume that 25.3% of future, non-HCP developments will occur without a federal permitting nexus to trigger federal action, and therefore warrant inclusion in the assessment of cumulative effects as defined per 50 C.F.R § 402.02.[55] Both draft HCP BiOps only consider the traffic impacts of that 25.3% of future development in modeling the cumulative effects, and the increased extinction risk resulting from the HCP plus cumulative effects. Yet by December 2021, Florida DEP had assumed Clean Water Act Section 404 permitting pursuant to EPA's decision on the State 404 Program, a decision that drastically altered whether future projects would require a federally issued permit to fill wetlands. Though 404 permits for wetlands fills now frequently will be issued by the state rather than the U.S. Army Corps of Engineers, the 2021 draft HCP BiOp does not appear to engage in any re-evaluation of whether it is still true that only 25.3% of future, non-HCP developments will entail no federal action subject to ESA section 7 consultation. Consequently, it is plain that the analysis in the BiOps fails to address the reality that a much larger proportion of non-HCP traffic induced in the action area will be from future projects that will not be subject to ESA section 7 consultation due to the State 404 permitting scheme, and therefore should have been evaluated as sources of cumulative effects.

As the Service recognizes in the draft 2021 HCP BiOp documents, a jeopardy determination must be based on whether the action, either individually *or taken together with cumulative effects*, will appreciably diminish the likelihood of survival or recovery for the species.[56] By

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[53] Any mining within the eastern Collier HCP area is likely to become lake-front development once mining uses are complete. The estimate of over 300,000 people does not include the addition of one home per five-acre ranchettes.
[54] Based on information provided in DPFG Town of Big Cypress Economic SRA Assessment, Revised June 28, 2022, p. 42; DPFG Bellmar Village SRA Economic Assessment, Revised January 8, 2021, p. 36; DPFG Longwater Village SRA Economic Assessment, Revised January 8, 2021; DPFG Rivergrass Village SRA Economic Assessment, Revised September 3, 2019, p. 38. DPFG Brightshore Village (AKA Hogan West) SRA Economic Assessment, Revised August 26, 2022, p. 31; DPFG Hyde Park Village (aka Skysail) Economic Assessment, Revised November 13, 2019, p. 35.
[55] *Compare* 2021 draft HCP BiOp Appendix H at 5–6; 2021 draft HCP BiOp Appendix J at 1, 2-3 *to* 2020 draft HCP BiOp Appendix H at 4 of 8; 2020 draft HCP BiOp Appendix J at 1.
[56] *See* 2021 draft HCP BiOp Appendix L at 10 ("Under section 7 of the ESA, we compare the future with the project scenario (B_{SLR} + HCP) to the Baseline condition (B_{SLR}) to help us determine whether the effects of the action are likely to result in an appreciable decrease or increase in the probability of survival and recovery over time. In addition, under section 7 of the ESA, we consider the cumulative effects, and compare the future with the project

failing to evaluate the impacts of all of the reasonably foreseeable non-HCP future development that will not entail federal action subject to ESA consultation requirements, the draft HCP BiOps underestimate the increased risk of extinction that will result from the HCP projects and other reasonably foreseeable non-HCP development in the action area.

4. The 2021 draft HCP BiOp's PVA modeling underestimates baseline risk of extinction because it assumes artificial introgressions to maintain genetic health will be conducted, even though there are no plans to conduct those introgressions.

The 2021 draft HCP BiOp makes clear that a key assumption of the PVA modeling it used to estimate the risk of extinction is that: "The Service will maintain the genetic health of the population through translocation when necessary, and in a manner consistent with the recommendations of van de Kerk et al. (2019)."[57] The Service explains that:

> If recommendations of introducing 5-10 individuals from other Puma populations every 20-40 years aren't adopted, van de Kerk et al (2019) predicted probability of quasi-extinction would increase to 13 percent (0–99) at 100 years and 23 percent (0–100) at 200 years (Minimum Population Count Scenario) or to 10 percent (0–99) at 100 years and 12 percent (0–99) at 200 years (Motor Vehicle Mortality Scenario). If the van de Kerk et al. (2019) recommendations aren't adopted, it would mean our estimates of extinction probability and abundance would change similarly.[58]

Although the risk modeling in the BiOp is therefore based on the assumption that the Service will undertake those actions to supplement the panther population, the draft 2021 HCP BiOp concedes that the Service in fact has no actual plans to conduct those actions; the draft 2021 HCP BiOp states, "It is not known if efforts to translocate panthers or apply some other measure to increase genetic variability in the panther population may occur in the future."[59] Consequently, it is arbitrary and capricious for the Service to base its analyses of extinction risks, and jeopardy, on the assumption that these actions will take place when the Service concedes that it is in fact unknown whether those actions will occur or not. There is no indication that the Service even attempted to evaluate how changing that assumption would alter its analysis of total extinction risk with the HCP, or the total extinction risk with the HCP and cumulative effects. So while the 2021 draft HCP BiOp does acknowledge that the baseline extinction risk would be substantially higher absent these management activities to supplement the population, it fails to evaluate the compounding effect of the HCP and cumulative impacts against a baseline scenario of substantially increased risk. When considering the direct, indirect,

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and cumulative effects scenario (B_{SLR}+HCP+CE) to the Baseline condition (B_{SLR}) to help us determine whether the effects of the action along with other actions that are reasonably certain to occur in the future without consultation with the Service are likely to result in an appreciable decrease or increase in the probability of survival and recovery over time. We consider both of these comparisons when we make our jeopardy determination.").

[57] 2021 draft HCP BiOp Appendix L at 1.

[58] 2021 draft HCP BiOp Appendix L at 12.

[59] 2021 draft HCP BiOp at 141.

and cumulative effects of the Bellmar project, the agencies must correct this unsupported assumption.

5. The draft HCP BiOps conceal the true risk of extinction by using speculation about carrying capacity to mask the impacts of habitat loss from sea level rise.

The PVA modeling results in both draft HCP BiOps conceal the true baseline risk of extinction by averaging together the results from model runs based on three different assumptions about whether the population is currently at carrying capacity for the remaining habitat. Although past PVAs assumed that the population reflected either 100% of the carrying capacity of the existing habitat, or 80% of the carrying capacity, the draft HCP BiOps, with little explanation or justification, also assume that the current population may reflect only 60% of the carrying capacity of the existing habitat.[60]

First, the assumption that the current population reflects only 60% of the carrying capacity of the panther's remaining habitat appears to be based on speculation rather than the best available scientific information. The 2021 draft BiOp states:

> The present Florida panther population is at or near average annual carrying capacity (*K*) of habitat south of the Caloosahatchee River. However, *it is possible* future habitat management may increase carrying capacity to range-wide effect. It is also *possible* present assumptions about maximum attainable panther densities are wrong. Thus, we assume the true *K* could actually be up to 40 percent higher than the present population size.[61]

This makes plain that FWS has based its analysis on mere "possibility" and conjecture rather than on what conditions are likely based on the best available scientific information, in violation of ESA requirements. It is also plainly irrational, as FWS elsewhere concedes, that "the true carrying capacity is unknown but *Service and FWC biologists infer the population may be at or near carrying capacity (K)*" but then proceeds to state that it nonetheless "assumed it is possible N_0 (the current population size) represents 100 percent, 80 percent, and 60 percent of carrying capacity."[62] There is no explanation of how 60% of carrying capacity is somehow rationally consistent with evidence suggesting the population is "at or near" 100% of carrying capacity. Most people would not consider a glass that is 60% full to be "at or near" being 100% full. This assertion is especially egregious given that the Service's peer reviewer pointed out that the studies cited by FWS regarding population trends could not be relied on to rule out that the population may already be either stable or in decline, rather than growing.[63] Moreover, the most

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[60] *See* 2021 draft HCP BiOp Appendix L at 4 (Table AL1 n.2) ("Our past PVA only utilized $N_0 = K_0$ and $N_0 = 80$ percent of K_0. Our current PVA incorporates scenarios where N_0 may equal 60, 80, and 100 percent of K_0.").
[61] 2021 draft HCP BiOp Appendix L at 2 (emphasis added).
[62] 2021 draft HCP BiOp Appendix L at 7 (emphasis added).
[63] *See* 2021 draft HCP BiOp Appendix M at 3 of 166 ("In the report Dr. Martin noted that recent efforts to estimate the Florida panther population over time contained a great deal of uncertainty. Particularly, he noted that though the central tendency of these estimates indicates a growing population, the confidence intervals surrounding these estimates were so wide that the possibility of an unchanging population or population in decline couldn't be rejected. Dr. Martin also indicated concern that were the panther population to be declining, rather than growing, future catastrophes, such as disease outbreaks of more serious diseases than seen to date, could have a greater affect [sic] on population viability than had been estimated in previous PVAs. Based on Dr. Martin's advice, the Service

recent population estimates indicate that the population is no longer increasing. As the 2020 SSA acknowledges, the most recent population trend data indicate the population did not grow between 2016 and 2018, and began to decline from 2017 to 2018.[64]

Second, rather than separately presenting the results of models based on the assumption of the population being at 100%, 80%, and 60% of the carrying capacity of the habitat, the draft HCP BiOps only present the results showing the *averaging* of model runs reflecting these three very different carrying capacity assumptions. Thus, the draft HCP BiOps conceal the extinction risk associated with the impacts of habitat loss given the more realistic assumption that the population is already at 100% of carrying capacity. Notably, in the BiOp's PVA analysis, FWS models sea level rise by 2070 as resulting in an 18% habitat loss for the Florida panther.[65] Yet its model shows little impact on the projected future population from that enormous amount of habitat loss, and indeed, shows the same result as a prior model *that totally failed to address the impacts of sea level rise (SLR)-related habitat loss at all*.[66] Without ever contemplating whether that might indicate that there is something wrong with the BiOp's modeling of SLR impacts, FWS instead asserts that "SLR as we modeled it here does not influence probability of extinction as much as small population size and genetic variation might."[67] FWS totally fails to consider that the reason that there is little impact from this enormous amount of habitat loss is because the assumption that the current population is only at 60% of carrying capacity would mean that the population could still *grow* by about 20% even with a 20% habitat loss. And the assumption that the current population is at 80% of carrying capacity similarly would mean that the population can stay the same, even with a 20% habitat loss. Averaging these results together with the scenario where the population is already at 100% of carrying capacity, and therefore would likely drop by about 20% in response to a 20% habitat loss would unsurprisingly mask the substantial population drop under the K = 100% scenario by averaging it out against the increase under the K= 60% scenario. Indeed, it is almost as if the modeling, and the otherwise arbitrary choice of the K=60% scenario was selected specifically to ensure this result, and mask the impacts of SLR on the baseline extinction risk.

Notably, the 2020 draft HCP BiOp acknowledges that the choice of carrying capacity explained a substantial portion of the variance in the projected abundances, but otherwise fails to examine how the treatment of carrying capacity in the modeling irrationally and unreasonably masked the impacts of SLR.[68] This error taints both the representations about the baseline extinction risk, and the impact of the HCP and cumulative effects in compounding the baseline extinction risk, with the upshot being that the analysis in the HCP BiOps underestimates the extinction risk

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amended portions of the Biological Opinion that treated 'rapid growth of the panther population' as fact to reflect this was but one possibility for the true population trend but that others, like population decline, could also be true.").

[64] *See* U.S. Fish and Wildlife Serv. 2020. Species Status Assessment for the Florida Panther. Version 1.0. September 2020. Vero Beach, Florida ["SSA"] at 88, 90, Figure 6.8.

[65] 2021 draft HCP BiOp Appendix L at 8.

[66] *See* 2021 draft HCP BiOp Appendix L at 12 ("Our results were also similar to van de Kerk et al.'s (2019) despite the fact their model did not consider the impact of sea level rise, while ours did.").

[67] 2021 draft HCP BiOp Appendix L at 12.

[68] *See* 2020 draft HCP BiOp at 145 (stating that the choice of carrying capacity explained 17.8% of the variance in final abundance whereas scenario explained 38.15%, and initial population 33.09%).

resulting from the impacts of the HCP and cumulative effects exacerbating the disastrous habitat loss from SLR.

6. The PVA modeling underestimates extinction risk by failing to account for the impacts of additional habitat loss from SLR between 2070 and 2170.

The PVA modeling relied on in the draft HCP BiOps to estimate extinction risk evaluates what the Florida panther population will be 100 years after the end of the proposed 50-year period for the proposed Incidental Take Permits in 2070.[69] FWS explains that its PVA model accounted for habitat loss due to sea level rise by "treat[ing] Sea Level Rise up to 2070 as an effect in the baseline portion of [the] assessment[.][70] FWS acknowledged that SLR "will have range-wide effects on demographic parameters and habitat availability for panthers within the proposed permit duration of the HCP."[71] FWS estimated that by 2070, 1 meter of SLR would cause the loss of 18% of the Florida panther's habitat.[72] "To input SLR in the PVA [FWS] assumed SLR would accumulate linearly and only to 1 m by 2070, and divided the acreage by 50 years with 0 acres lost to SLR being equivalent to a proportion of individuals represented by a given N_0 … and to 18 percent of habitat loss to SLR being equivalent to 18 percent of N_0."[73] FWS explicitly states that the PVA modeling relies on the assumption that "Sea Level Rise of 1m will occur by 2070 but will not take additional Florida panther habitat beyond that time."[74] Thus, FWS apparently only modeled habitat loss due to SLR up until 2070, but did not account for additional habitat loss that would occur as sea levels continue to rise after 2070. FWS's modeling purports to assess the population 100 years after 2070 but ignores the impacts on that population of continued habitat loss from SLR between 2070 and 2170, even though SLR projections are available through at least 2100. Indeed, in the 2020 Species Status Assessment for the Florida Panther, FWS used sea level rise models of up to two meters to estimate possible loss of panther habitat through 2100.[75] And, in 2017, NOAA estimated that global mean sea level rise in 2100 would be nearly double that in 2070 under the Intermediate through High scenarios.[76] By failing to account for continued sea level rise related habitat loss after 2070, the PVA modeling likely overestimates panther abundance in 2170 and underestimates the extinction risk. Revised

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[69] *See* 2021 HCP BiOp Appendix L at 10 ("For each of the three scenarios above, we simulated a 150-year population trajectory (50-year build-out plus 100 years beyond) and compared the predicted change in population viability for the panther."); 14, Table AL3 ("The probability of extinction and predicted population size of the Florida panther under Baseline with Future Sea Level Rise (BSLR), BSLR plus HCP Development Effects (BSLR+HCP), and BSLR+HCP plus Cumulative Effects (BSLR+HCP+CE) scenarios given three different beginning female panther population sizes. BSLR = Baseline (Current conditions + 1m SLR by 2070) and the end time is 100 years after HCP full build-out in 2070.").
[70] 2021 draft HCP BiOp at 132.
[71] 2021 draft HCP BiOp at 132.
[72] 2021 draft HCP BiOp Appendix L at 8.
[73] 2021 draft HCP BiOp Appendix L at 8.
[74] 2021 draft HCP BiOp Appendix L at 2.
[75] U.S. Fish and Wildlife Serv. 2020. Species Status Assessment for the Florida Panther. Version 1.0. September 2020. Vero Beach, Florida ["SSA"] at vii, 189; *see also* SSA at 230–32.
[76] *See* Sweet, W. V., R. E. Kopp, C. P. Weaver, J. Obeysekera, R. M. Horton, E. R. Thieler, and C. 12769 Zervas. 2017. Global and regional sea level rise scenarios for the United States. NOAA 12770 Technical Report NOS CO-OPS 083. National Oceanic and Atmospheric Administration, 12771 Silver Spring, MD, at 23 (Table 5), *available at* https://tidesandcurrents.noaa.gov/publications/techrpt83_Global_and_Regional_SLR_Scenarios_for_the_US_final.pdf (showing GMSL in 2070 of 0.57 m, 0.79 m, and 1.0 m for the Intermediate, Intermediate-High, and High scenarios, and GMSEL in 2100 of 1.0 m, 1.5 m, and 2.0 m for those same scenarios, respectively).

analysis to correct this problem is necessary, and should utilize the best available scientific information available, such as NOAA's most recent sea level rise projections.[77]

D. The agencies cannot rely on proposed mitigation for species impacts in the ECMSHCP because the applicant has withdrawn its associated permit application and thus the ECMSHCP provides no assurances the mitigation will occur.

The Bellmar applicant and other landowners have been seeking incidental take coverage through the ECMSHCP for development of 45,000 acres since 2010. In a letter submitted to the U.S. Fish and Wildlife Service (FWS) in July 2022, the landowners formally withdrew their application for an incidental take permit.[78] However, to-date we have not seen any documentation indicating that the applicant has informed FDEP that the ECMSHCP application has been withdrawn or that the applicant has updated its application materials to reflect this significant change. As the ECMSHCP has been withdrawn by the applicant, any promises from the applicant to adhere to the tenets of the ECMSHCP are toothless unless incorporated as conditions in the FDEP permit, if awarded.

Moreover, fatal flaws in the ECMSHCP have not evaporated; our letters regarding the proposal and the review by experts are enclosed. We do not consider any intent to work towards the tenets of the ECMSHCP[79] adequate to meet the requirements of the state 404 program nor the Endangered Species Act.

E. The applicant has failed to provide necessary information for the agencies to estimate Bellmar's effects on the Florida panther.

On August 31, 2022, FWS corresponded with FDEP to request additional time to prepare appropriate conservation recommendations for the Bellmar project, taking into account the project's size, location, and anticipated effects to federally protected species.[80] FWS further indicated the need for information currently missing from the applicant's biological assessment:

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[77] *See, e.g.*, Sweet, W.V., B.D. Hamlington, R.E. Kopp, C.P. Weaver, P.L. Barnard, D. Bekaert, W. Brooks, M. Craghan, G. Dusek, T. Frederikse, G. Garner, A.S. Genz, J.P. Krasting, E. Larour, D. Marcy, J.J. Marra, J. Obeysekera, M. Osler, M. Pendleton, D. Roman, L. Schmied, W. Veatch, K.D. White, and C. Zuzak, 2022: Global and Regional Sea Level Rise Scenarios for the United States: Updated Mean Projections and Extreme Water Level Probabilities Along U.S. Coastlines. NOAA Technical Report NOS 01. National Oceanic and Atmospheric Administration, National Ocean Service, Silver Spring, MD, 111 pp., at 23, https://oceanservice.noaa.gov/hazards/sealevelrise/noaa-nostechrpt01-global-regional-SLR-scenarios-US.pdf (projecting relative sea level rise in 2100 in the eastern Gulf of Mexico will be 1.2, 1.7, and 2.2. meters under intermediate, intermediate-high, and high scenarios, respectively)

[78] U.S. Fish & Wildlife Service, East Collier Multi-Species ITP/HCP Withdrawal, (posted Sept. 1, 2022) https://www.fws.gov/library/collections/east-collier-multi-species-itphcp-withdrawal (last accessed Sept. 9, 2022).USFWS response to HCP withdrawal, provided by email on September 1, 2022, and enclosed

[79] Eastern Collier Property Owners Letter to USFWS dated 07/28/2022 Withdrawing their Incidental Take Permit applications, available at https://www.fws.gov/media/eastern-collier-property-owners-letter-usfws-dated-07282022-withdrawing-their-incidental-take.Letter dated July 28, 2022, from ECPO re: Withdrawal of ECPO Incidental Take Permit Applications

[80] Email from Charles Kelso, U.S. Fish and Wildlife Service, to Toby Schwetje, Florida Department of Environmental Protection regarding U.S. Fish and Wildlife Service's initial comments regarding the Bellmar proposal (Aug. 31, 2022).

> Because our recommendations are based on anticipated effects of the action, the Service will require an estimate of the project's future effects to the Florida panther. Therefore, we recommend updating Applicant's July 2021 Biological Assessment to include an estimate of panther mortality due to traffic volume increases upon project completion.[81]

The agencies had already requested in a prior Request for Additional Information (RAI) for the applicant to "provide a traffic analysis specific to the Bellmar project. The traffic analysis should include an estimation of daily trips generated by village residents, employees, and municipal services and identify the roads these trips will most likely take place on."[82] However, this information was not provided and yet FDEP still advanced the Bellmar project to Public Notice.

The applicant has obscured the amount of traffic attributable to the Bellmar 404 project, and, as illustrated above, this information is vital to avoiding jeopardy to the Florida panther. The applicant has requested "that the USFWS include a proportional level of coverage for the incidental take expected as a result of the Project in the incidental take statement for this action" should FDEP complete their review before an ITP is issued.[83] However, critical information in which the agencies would need to ensure roadkill mortalities are adequately considered and avoided is not provided.

We are aware that in materials submitted to Collier County (Attachment A), the applicant's traffic engineer calculated that total traffic created by the 1,000 acre Bellmar Village would be 26,232 trips per day.[84] Please note that this estimate is for only part of the state 404 project area—there are more than 700 acres, 1,000 additional residential units, and commercial development not included in this estimate that, if developed, will generate thousands of additional trips to this total.

The table below summarizes the information available through the Collier County materials in regard to the Bellmar 404 application and a portion of the Rural Lands West state 404 project.[85] This 404 application is fairly equivalent to the village of Bellmar and most of the town connector as seen in the table below.

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[81] *Id.*
[82] FDEP, 2021. Request for Additional Information, Bellmar. August 20, 2021.
[83] Letter from Applicant to FDEP dated April 14, 2022, page 14
[84] Traffic Impact Statement for Bellmar Stewardship Receiving Area (SRA) by Treblicock Engineering for Collier Enterprises dated August 19,2020, p. 7, Table 2. The project footprint for the Bellmar SRA is at least 700 acres less than the state 404 project that is the subject of this letter.
[85] Traffic Impact Statement for the Town of Big Cypress SRA, Section 1, Road Segment Analysis, Trebilcock Consulting Solutions, June 2022,Page 7. The Town of Big Cypress SRA, as known at the Collier County level, includes the state 404 Bellmar project, and a portion of the Rural Lands West state 404 project. There would be about an additional 1,000 acres of development added to these figures as part of the Rural Lands West state 404 project footprint.

TOWN OF BIG CYPRESS	
	Estimated daily trips generated
Rivergrass[86]	23,929
Longwater[87]	24,919
Bellmar[88]	26,232
Town Connector	64,125
Total [89]	139,205* *Does not include a portion of the state 404 Rural Lands West project
Bellmar state 404 application	90,357

We emphasize that the application trips are the best estimate the public currently has access to, given that the applicant has failed to provide the required traffic and transportation information. The total daily trips generated are likely to be more than what we show here. The agencies should not proceed with decisionmaking on the Bellmar permit until the applicant provides this necessary information. To determine species effects, mitigation, or make a jeopardy determination without this information would violate the ESA's core requirement to use the best available science,[90] as well as the technical assistance process's requirement that applicants provide sufficient information to review potential adverse impacts to listed species and critical habitat.[91]

II. Bellmar Is Inconsistent with the State 404 Program, 62-331, F.A.C.

A. The alternatives analysis is inadequate.

The project identifies an approximately 1,790-acre footprint in eastern Collier County that is proposed for construction of a master-planned community. We note for the record that there is no

[86] Traffic Impact Statement for Rivergrass SRA, Section 1, Road Segment Analysis, Trebilcock Consulting Solutions, August 2019, Page 7.
[87] Traffic Impact Statement for Longwater SRA, Section 1, Road Segment Analysis, Trebilcock Consulting Solutions, March 2020, Page 7.
[88] Traffic Impact Statement for the Bellmar SRA, Section 1, Road Segment Analysis, Trebilcock Consulting Solutions, August 2020, Page 7.
[89] Traffic Impact Statement for the Town of Big Cypress SRA, Section 1, Road Segment Analysis, Trebilcock Consulting Solutions, June 2022, Page 7.
[90] 16 U.S.C. § 1536(a)(2); 404 Programmatic BiOp at 5.
[91] 404 Programmatic BiOp at 16 ("Applicants submitting a State 404 permit application will be required to submit information that allows the State of Florida (FDEP and FWC) to sufficiently assess potential adverse impacts of the proposed project on listed species and their designated critical habitats and allow the USFWS to review and provide technical assistance as needed (62-331.051, F.A.C.).").

public benefit of the project, and rather, the public's resources and interests are threatened by the Bellmar project.

The state rules governing section 404 permitting state that FDEP shall not grant a permit "if there is a practicable alternative to the proposed activity which would have less adverse impact on the aquatic ecosystem."[92] We disagree with the applicant that there is "no less environmentally damaging practicable alternative."[93]

The general project purpose of providing a master-planned community can be achieved while avoiding and minimizing impacts to wetlands and listed species habitats, such as Florida panther Primary Zone habitat and crested caracara primary nest buffer, when considering other site alternatives, as required.[94]

The applicant improperly restricts the alternatives they are considering to areas that are 2,000 acres or greater, within eastern Collier, within the Collier County Rural Lands Stewardship Program, and ECMSHCP. There may be lands with less impact to natural resources that are of a different size and outside of these boundaries that should have been considered as an alternative. We note the ECMHCP is withdrawn as of July 28, 2022, and cannot be relied on by the applicant to ignore all alternatives. This change requires the applicant to redo and resubmit a new alternatives analysis including non ECMSHCP properties.

The applicant offers no evidence, that 2,000 acres is required for a master-planned community.[95] In fact, we contend that approving this type of sprawling development is damaging to the future of Florida as it erodes the urban rural boundary and removes important agricultural lands from production. There are many examples both in and out of Florida using smart growth design that provide the desired number residences as well as commercial development on sites significantly smaller than 2,000 acres.

Sustainable, compact development – which the proposed project is not – would also appeal to "ecologically minded consumers"[96], and truly ecologically minded consumers would not support destroying important panther habitat needed for survival and recovery of the Florida panther.

Further, the applicant failed to consider other sites, even those not owned by the applicant, which can serve the general residential and commercial uses proposed by this project in an area closer to existing development, outside of primary panther habitat, and not adjacent to a wildlife refuge.[97] The applicant does not fully consider lands directly north of the Bellmar parcel as alternatives. The alternative analysis speaks to "Parcel 5" as containing lands that would meet

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[92] 62-331.053, Florida Administrative Code.
[93] Bellmar Alternatives Analysis, April 2022, page 1.
[94] Florida Department of Environmental Protection, 2020. State 404 Program Applicant's Handbook. Effective December 22, 2020; 62-331, Florida Administrative Code.
[95] Bellmar Alternatives Analysis, April 2022, page 1.
[96] Bellmar Alternatives Analysis, April 2022, page 1.
[97] Florida Department of Environmental Protection, 2020. State 404 Program Applicant's Handbook. Effective December 22, 2020, Appendix C, p. 57 states If it is otherwise a practicable alternative, an area not presently owned by the applicant that could reasonably be obtained, utilized, expanded, or managed in order to fulfill the overall purpose of the proposed activity can still be considered a practicable alternative. In other words, if an applicant does not own an alternative parcel, that does not rule that parcel out as a practicable alternative.

the applicant's constrained restrictions, but it does not go on to fully consider these areas as alternatives.

Within Parcel 5, there are more than 20,000 acres, many of which are owned by the applicant (not a limiting factor), and others recently sold to Gargiulo (who also owns part of this pending Bellmar project area) (see Attachment B).

The applicant appears to not consider lands to the north because of the also-proposed Rural Lands West state 404 application, which is not a justifiable reason to exclude from the analysis.

Importantly, there are also lands to the north of both Bellmar and Rural Lands West that should be considered as an alternative. There are lands north of Oil Well Road that are also contemplated for future development, as evidenced by the ECMSHCP. The Conservancy of Southwest Florida has recommended Collier Enterprises move its developments to this area since the area would result in little to no Primary Zone panther habitat to be impacted. In fact, the Service asked the applicant to consider this northern area as an alternative to avoid and minimize listed species impacts, when the Rural Lands West project was seeking a permit from the U.S. Army Corps of Engineers.[98]

Instead of providing an Alternatives Analysis that would satisfy the state 404 program requirements, the applicant vies for developing the entirety of Parcel 5, with this Bellmar application and several other proposals.

To make matters worse, the applicant provided no scenario that considered a smaller footprint, or any footprint that would avoid the primary zone for the active caracara nest on the site or redesign stormwater lakes to avoid wetland impacts. Most of the wetland impacts are coming from the choice to place stormwater lakes into wetlands. With a project size of over 1,700 acres there is no excuse to use the adjacent wetlands to dredge stormwater lakes; such development uses could be contained within uplands.

The applicant did not adequately analyze "alternative on-site configurations" or "extensively redesign the Project to avoid and minimize impacts."[99] If that were true, the applicant would have made a small adjustment to the footprint to avoid impacts to the primary zone of the caracara nest in the center of the property. Avoiding this caracara primary zone would require an alteration and avoidance of approximately 52 acres. This has never been done, and it undermines the applicant's genuine interest in avoiding and minimizing impacts. It is particularly egregious for the applicant to state that their "development should be designed to incorporate protection and preservation of habitat and natural resources"[100] in light of their refusal to avoid the primary zone of this existing caracara nest.

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[98] Letter from U.S. Fish and Wildlife Service to Army Corps of Engineers regarding Collier Enterprises Management, Inc. project Town of Big Cypress dated November 18, 2008. "The Service recommends the alternatives analysis includes alternative project sites and configurations that avoid and minimize the impacts to wetlands and open waters, as well as minimize impacts to endangered species. Specifically, other applicant-owned lands north of Oil Well Road may be more suited to a development of this sort."
[99] Bellmar Alternatives Analysis, April 2022, page 1.
[100] Bellmar Alternative Analysis, April 2022, page 7.

In sum, the applicant has failed to provide an adequate analysis of less damaging alternatives. Furthermore, FDEP should consider a "no action alternative."[101] The impacts of the proposed project are contrary to the public interest.

B. The application fails to adequately analyze secondary effects.

The Bellmar project also fails to meet the requirements to adequately consider secondary impacts. FDEP must consider secondary effects from proposed activities, particularly on sanctuaries and refuges.[102] These areas, as the FDEP Handbook states, are "managed principally for the preservation and use of fish and wildlife resources," and dredge and fill activities may "result in the establishment of undesirable competitive species of plants and animals," or "change the balance of water and land areas needed to provide cover, food, and other fish and wildlife habitat requirements in a way that modifies sanctuary or refuge management practices."[103]

We note that Collier Enterprises Management Inc. discusses its "long tradition of environmental stewardship," land transfers, and sales in its response to the request for additional information.[104] But that generalized historical narrative does nothing to address the harmful impacts of the applicant's proposal on the Florida panther and other natural resources through this project. The Bellmar project will destroy more than 1,700 acres of the most important and critical category of delineated panther habitat, will infringe on and fragment a landscape corridor, and cause additional panther and other species mortalities due to habitat loss and vehicle collisions, while adding more than 8,600 new residents in an area heavily utilized by wildlife. In fact, the applicant's proposed project threatens the future integrity of the Florida Panther National Wildlife Refuge, one of the lands they mention in their history. As they note, the Refuge was founded with the purpose of protecting Florida panthers and their habitat.[105] However, the Bellmar project is a direct affront to this publicly held sanctuary.

The FPNWR has informally and formally shared concerns regarding both the Rural Lands West and Bellmar projects since 2006.[106] Major concerns of the FPNWR managers even then was the impact of these developments on hydrology and prescribed fire use. Staff wrote "building a community adjacent to the west side of the refuge would severely limit or prohibit prescribed burning to nearly half of the refuge fire units due to smoke management limitations…. Staff is concerned that the new developments will cause more water to either be stored in retention ponds, thereby reducing water flow into the refuge or developments will increase runoff into Camp Keais Strand, which flows into the refuge."[107] Already-altered hydrology has shifted the land cover on the FPNWR to dense cabbage palm, and the Refuge expends considerable effort in

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[101] Florida Department of Environmental Protection, 2020. State 404 Program Applicant's Handbook Effective December 22, 2020, Section 8.3.1.
[102] Florida Department of Environmental Protection, 2020. State 404 Program Applicant's Handbook Effective December 22, 2020, Section 8.3.6.
[103] Florida Department of Environmental Protection, 2020. State 404 Program Applicant's Handbook Effective December 22, 2020, Section 8.3.6.
[104] Passarella & Associates, Inc., 2021. Bellmar Biological Assessment. July 2021, p. 1.
[105] *Id.* at 2-4.
[106] Meeting notes and staff summaries regarding Rural Lands West and Bellmar projects impacts to listed species and impacts to FPNWR, dated 2006. Received through Freedom of Information Act request.
[107] *Id.*

vegetation management and prescribed fire to maintain the publicly-held refuge as suitable habitat for the Florida panther and its prey.

These same concerns about degradation to the 26,400 acres of the FPNWR were echoed repeatedly, in the Refuge staff comments on the ECMSHCP and in a letter to Collier County when the local authorizations for Bellmar were sought.[108]

In a 2016 letter from FPNWR, the Panther Review Team (PRT) configuration alternative was recommended. This alternative would "protect critical linkages and buffer areas."[109] The PRT alternative would mean the Bellmar property would not be intensified above existing agriculture and would not be developed (Attachment C).

Both the 2016 and 2021 letters shared concerns that development contemplated in the ECMSHCP would encroach upon conservation areas like the FPNWR. Because of the Refuge's position against roadways I-75 and State Road 29, prescribed burn can only direct smoke in the direction of Bellmar and Rural Lands West.

While we understand that efforts were made to provide smoke easement language, future Florida Forest Service authorizations for burning are not assured, once these massive developments are built. If Rural Lands West and Bellmar are built, they would place about 19,170 people -a population about the size of the City of Naples[110]- in direct conflict with management of the Refuge. The FPNWR currently is the most densely occupied Florida panther habitat[111] and any degradation or encroachment of the adjacent-proposed development would be an unacceptable secondary impact and could also contribute to jeopardy for the Florida panther.

C. FDEP must analyze all cumulative effects.

Under the state 404 program, FDEP must also consider the impact of cumulative effects. As in the sections above, there are a number of projects both pending before the agency or otherwise reasonably foreseeable, that contribute to unacceptable cumulative impacts.

From just seven state 404 applications, there would be over 1,000 acres of wetlands lost.[112] Further, FDEP is also currently considering additional proposed state 404 actions. There are 259 activities reviewed or under review as part of the state 404 program within 5 miles of Bellmar, and 785 within 25 miles of Bellmar (Attachment D and Attachment E).[113] Though these actions

[108] Letter from Florida Panther National Wildlife Refuge to U.S. Fish and Wildlife Service Ecological Services Re: Public Comment Eastern Collier Multispecies Habitat Conservation Plan and EIS, August 25, 2016; Letter from Florida Panther National Wildlife Refuge to Collier County Planning Commission Re: Longwater and Bellmar Village SRA Resolutions, March 1, 2021.
[109] Letter from Florida Panther National Wildlife Refuge to U.S. Fish and Wildlife Service Ecological Services Re: Public Comment Eastern Collier Multispecies Habitat Conservation Plan and EIS, August 25, 2016.
[110] City of Naples census population, as of 2020.
[111] Dorazio & Onorato, 2015. Estimating the Density of Florida Panthers Using Camera Trapsand Telemetry - Report for Phase I of the Project, final report.
[112] Bellmar, Rural Lands West, Hogan West, Immokalee Road Rural Village, FFD, Troyer Mine, Kingston.
[113] Based on ArcGIS analysis. Feature Layer from Florida Department of Environmental Protection, Managed by FDEPOpenDataPortal.

may be small or large projects, the total cumulative impacts on wetlands and aquatic resources must be considered.

D. Bellmar will have adverse effects on aquatic ecosystems, including listed species and their habitats.

The state's 404 program stipulates that no permits can be granted for projects that would cause or contribute to significant degradation of wetlands, which can include adverse effects on wetland-dependent species, ecosystem diversity, and fish and wildlife habitat.[114] Wildlife surveys provided by the applicant show how valuable this area is for a multitude of state and federally listed species. We address quite a bit of this in our prior letters on Bellmar, however, we provide the new or updated information as below, including an analysis by panther habitat modeling expert, Dr. Robert Frakes. Bellmar's impacts to fish and wildlife and their habitats is significant and unacceptable, and thus the permit should be denied.

1. Bellmar will have unacceptable impacts on the Florida panther.

The Bellmar project site is an important area for the endangered and wetland-dependent Florida panther. There have been 112,065 telemetry points collected from Florida panthers since 1981 through 2022, from at least 267 panthers.[115] Looking at just a 5-mile area around the Bellmar site, 8.3% of all documented telemetry points and 29.2% of all collared panthers fall within this area.

The Bellmar project is completely comprised of Primary Zone habitat and nearly all Adult Breeding Habitat area – two models depicting the most critical lands to the survival and recovery of the Florida panther. It is situated close to the FPNWR and a critical linkage called Camp Keais Strand is within and adjacent to the project.

The 2020 draft HCP BiOp described a range of impacts to the Florida panther from development in Eastern Collier:

- Increased mortality from intra-specific aggression among panthers displaced by proposed development and human activity;
- Increased mortality and decreased individual fitness caused by intensification of intra and inter- specific competition;
- Increased predation of panther kittens from other predators when preferred prey populations decline;
- Effects to individuals from habitat loss, degradation, and fragmentation because of new roads connecting new areas of development to one another and the existing road network;
- Increased injury and mortality from collisions with traffic on new roads;
- Management removal because of depredation and human/panther interactions;
- Increased exposure to disease; and
- Increased exposure to toxins.[116]

[114] 62-331.053, Florida Administrative Code.
[115] https://geodata.myfwc.com/datasets/myfwc::florida-panther-telemetry/about
[116] 2020 draft HCP BiOp at 125.

To review the impacts to Adult Breeding Habitat, panther habitat modeling expert Dr. Robert Frakes utilized a landscape-scale panther habitat model that was described in Frakes, et al, 2015.[117] The model analyzes forest land cover and forest edge, human density, and road density, amongst other factors to determine suitable breeding habitat for the panther.

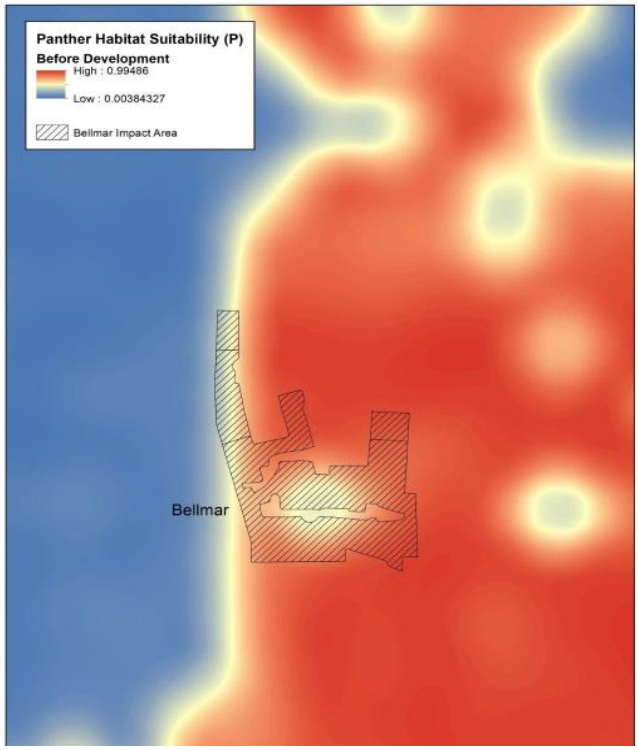
Using this published model with updates, Dr. Frakes compared the existing conditions to post-project scenario for Bellmar alone as well as Bellmar and RLW together. There is one set of maps to show the raw results and one set to show in an interpolated model that "smooths" the cells.

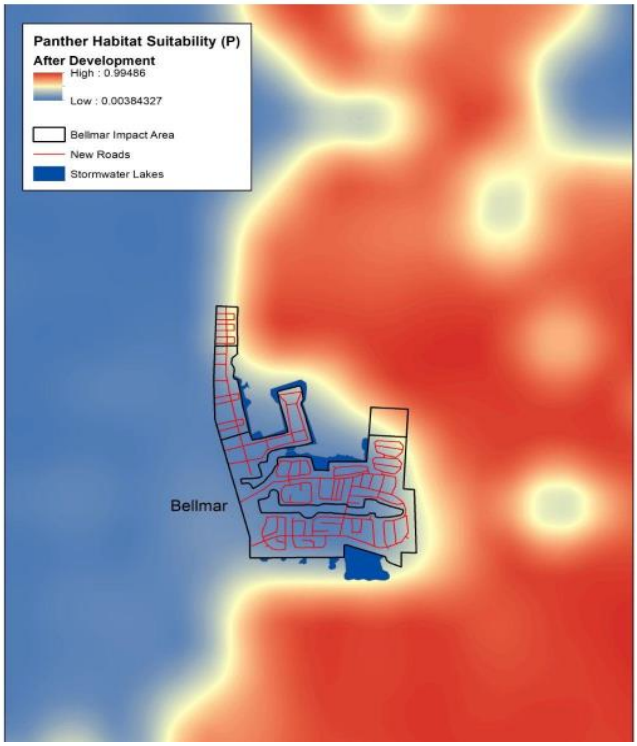
Frakes et al., 2015 acknowledges that "protection of the remaining breeding habitat in south Florida is essential to the survival and recovery of the subspecies and should receive the highest priority by regulatory agencies."[118] Yet, adult breeding habitat maps show that Bellmar alone will cause the loss of 10 km2 (2,471 acres) of breeding habitat.

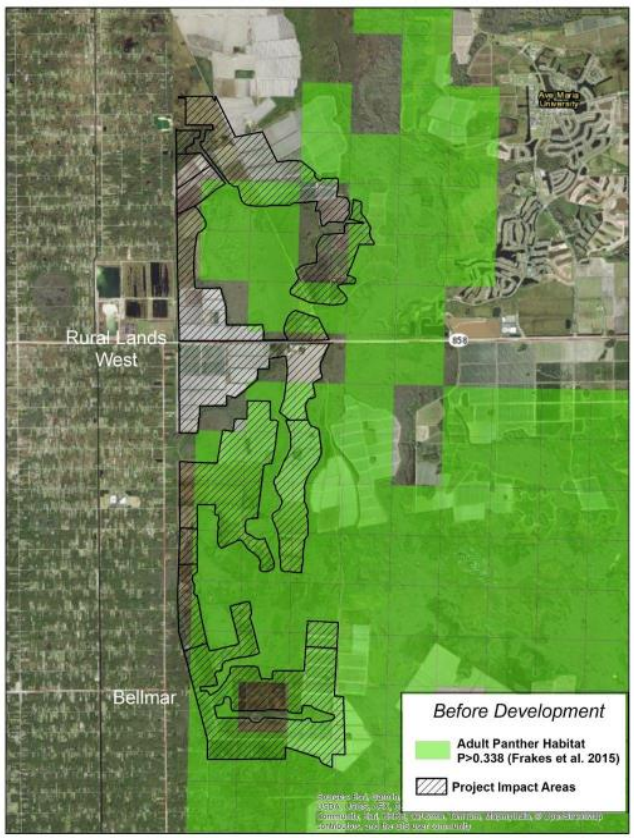
When Bellmar is combined with RLW, it would cause a combined loss of 23 km^2 (5,683 acres). The interpolated maps show a significant narrowing of the Camp Keais Strand dispersal corridor, especially when Bellmar and RLW are considered together.

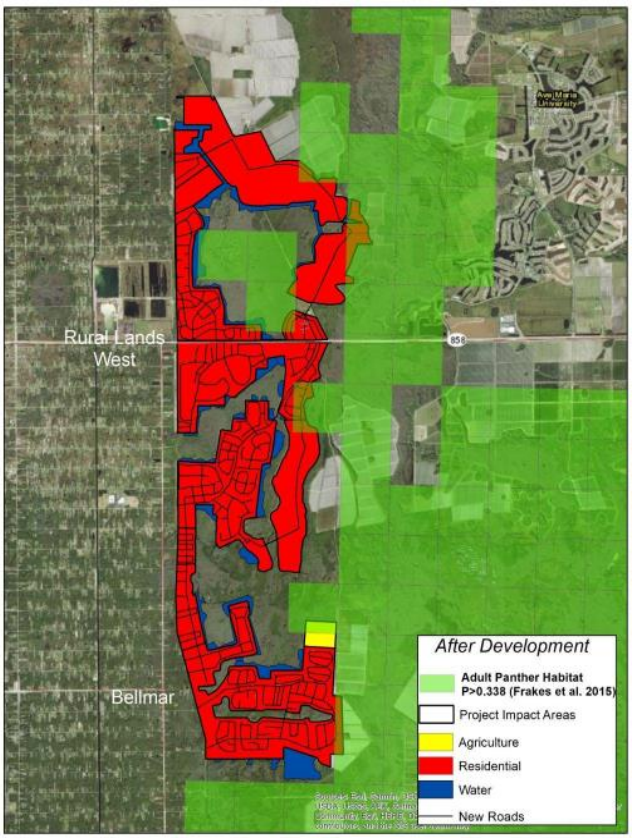
Allowing Bellmar to move forward will have unacceptable direct and indirect impacts on panther habitat and corridor connections.

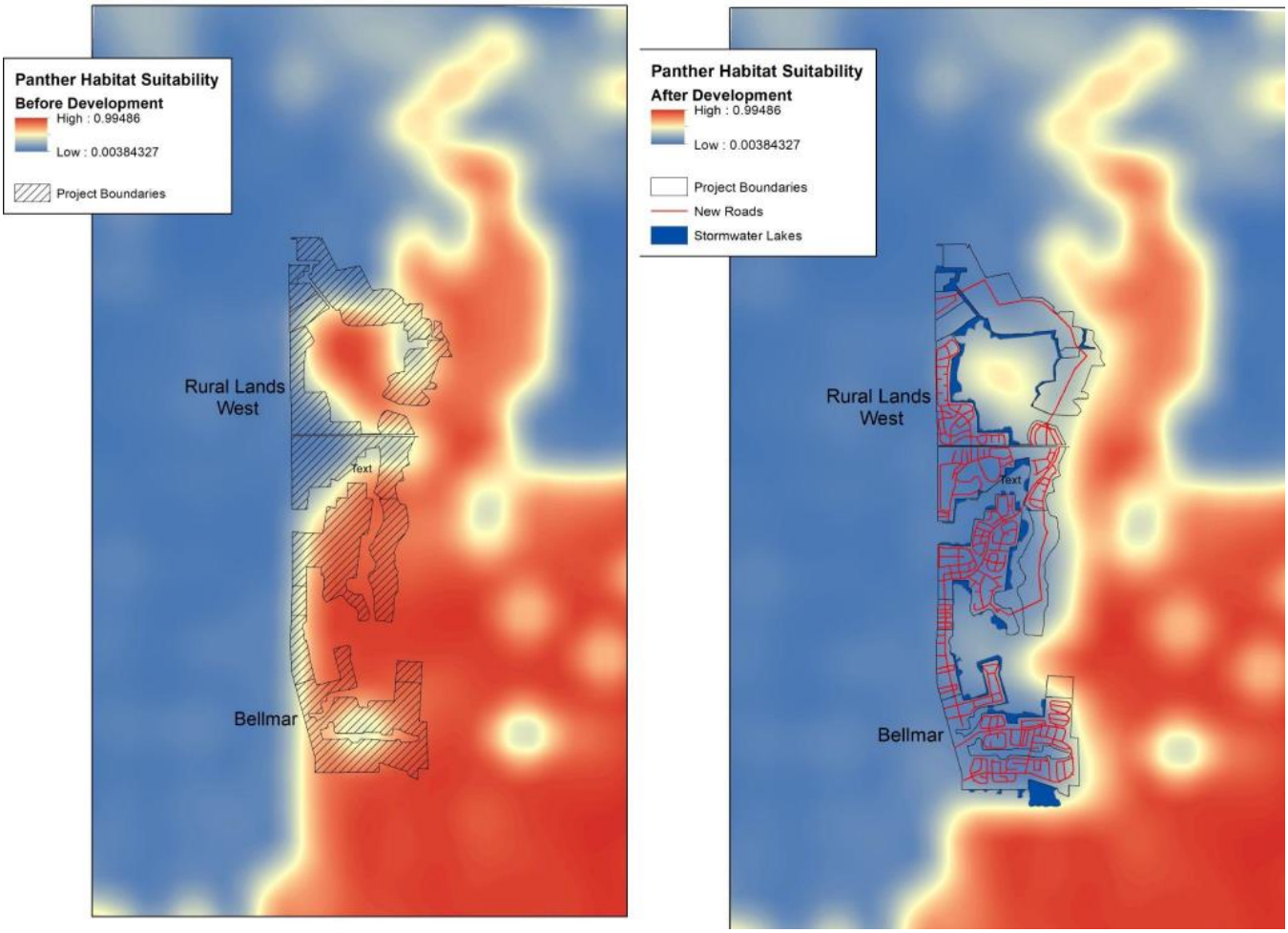
[117] Frakes, R.A., Belden, R.C., Wood, B.E. & James, F.E. (2015). Landscape analysis of adult Florida panther habitat. PLoS One 10, e0133044.
[118] *Id.* at 15-16.


Panther Habitat Suitability (P)
Before Development
High : 0.99486
Low : 0.00384327
Bellmar Impact Area
Bellmar


Panther Habitat Suitability (P)
After Development
High : 0.99486
Low : 0.00384327
Bellmar Impact Area
New Roads
Stormwater Lakes
Bellmar


Rural Lands West
Bellmar
Before Development
Adult Panther Habitat P>0.338 (Frakes et al. 2015)
Project Impact Areas


Rural Lands West
Bellmar
After Development
Adult Panther Habitat P>0.338 (Frakes et al. 2015)
Project Impact Areas
Agriculture
Residential
Water
New Roads



We note for the record that in addition to the direct impacts to areas with development, the Public Notice states that "[m]anagement objectives to the preserves adjacent to development will the implemented to limit prey and foraging conditions that otherwise may attract panther and bears".[119] We need clarification on what this means and assurance that if permitted, the applicant will not be seeking or be given Panther Habitat Unit (PHU) credits for lands that are actively being managed to deter panthers. The PN states that the proposed project will need 1,793.4 acres and the estimated PHU credits needed are 16,844.[120] The PN then states that the conservation areas of the project exceed this amount by providing 18,648 PHUs.[121] However, without a map detailing the areas being considered, there is no way to ensure that the applicant is considering preserves being managed to deter panthers as impacted and that these preserves are not being used for compensation.

Further, in the 2020 draft HCP BiOp, the FWS recommended more than 25 different actions to minimize impacts on the Florida panther, including the following:

- Maintain internal traffic capture of each development at or above 50 percent.

[119] State 404 Program Public Notice for Permit Application No. 396364-001 dated August 16,2022, at 3.
[120] State 404 Program Public Notice for Permit Application No. 396364-001 dated August 16,2022, at 5.
[121] State 404 Program Public Notice for Permit Application No. 396364-001 dated August 16,2022, at 5.

- Prohibit residents from keeping domestic animals (chickens, goats, etc.) that attract panthers and other predators.
- Require full vaccination of all pets in new developments from diseases that can be acquired by panthers.
- Require pets be kept indoors, leashed, or maintained in fenced enclosures at all times. Encourage residents to feed pets indoors and to not leave pet food dishes outside.
- Encourage residents to clean grills and store them indoors when not in use.
- Minimize the use of bird feeders and supplemental feeding stations for deer and other game species.
- Require residents to deer proof gardens.
- Restore agricultural lands to native habitats that are more beneficial to the panther, especially forested habitats, and maintain in perpetuity. [122]

We have no indication from the applicant whether they are going to follow or incorporate this advice into the proposed development. These draft recommendations should inform the evaluation of whether the project should be authorized absent any commitment by the applicant to implement them, for example, by informing whether the proposal is in the public interest or meets requirements to minimize impacts. The agencies should also consider whether these recommendations should be incorporated as binding permit terms to ensure that impacts are minimized.

2. Bellmar will have unacceptable impacts on the Florida bonneted bat.

The applicant's Florida bonneted bat (FBB) survey, dated July 2021, found that calls were recorded "within the time frame considered by USFWS that roosting is likely nearby (Attachment F)."[123] Thus, the agencies need to look closely at not only how Bellmar would impact proposed critical habitat, but also foraging and roosting within the project. If the Bellmar project will impact a roost(s), there is an increased likelihood that Bellmar would also pose jeopardy to the bonneted bat. Based on our review, the applicant has not adequately addressed this issue.

We also note that this project is in FBB Proposed Critical Habitat (PCH), specifically Unit 3 of the PCH (Attachment G).

E. Ownership and other information must be addressed.

1. Ownership within the Project Boundary

It appears that the applicant does not, in fact, own all of the property contained in the application (Attachment H). About 503.57 acres were sold in June 2019 to Gargulio, Inc. This is 9.8% of the 5,105.49 acres. We note that Gargulio does not appear to be indicated as or listed as an adjacent property owner and is not part of the permit notice. To our knowledge, Gargulio is also not an applicant. While it appears that the Gargulio property is not designated as development or conservation, it does call into question the appropriateness of including this property in the

[122] 2020 draft HCP BiOp at 320.
[123] Passarella & Associates, Inc., 2021. Bellmar Florida Bonneted Bat Acoustic Survey Report. Prepared for Collier Enterprises Management, Inc. July 2021.

Bellmar 404 boundary without the documented acknowledgement of the property owner. The agencies should determine why land not owned by the applicant is included in the boundary of the application.

Parcel ID	Acres
354930004	96.88
354960207	9.03
354520100	225.97
354480606	171.69
TOTAL	503.57

This information was found on the Collier County Property Appraiser on October 15, 2021, confirmed on August 30, 2022.

2. **The applicants have yet to comply fully with all requests for additional information.**

In addition to the other RAI request that was not addressed, as discussed above, the following RAI comments from the August 20, 2021 RAI letter have not been addressed in part or in full:

Excerpt from the Agency RAI:

25. Page 34 of the BA addresses incidental take of the project by referring to the HCP. The ITP has not been issued yet. Therefore, please provide a stand-alone analysis of incidental take for each species that will have take (as defined by the ESA) associated with the Bellmar project. In order to remain within the State 404 process, a project must not cause jeopardy. Please provide an analysis supporting that the Bellmar project is not likely to cause jeopardy to the panther.

The applicant's response to this request is not adequate because the ECMSHCP has been withdrawn. To date, we have not seen any new information submitted to FDEP and FWC informing them that the ECMSHCP has been withdrawn.

Excerpt from the Agency RAI:

34. The provided plans do not seem to provide any indication of the proposed lot size. What is the approximate site of each residential lot? How many residences are proposed or anticipated?

The applicant refers to the Town Connector as intended for commercial uses, however at least 1,000 residential units – both affordable and market rate – are also proposed along with the commercial uses. The applicant should be required to answer this question completely and in adequate detail to ensure that the impacts of its proposal, in particular the traffic-inducing impacts, are assessed accurately.

Excerpt from the Agency RAI:

48. What are the potential effects of the project on the Florida panther, including the direct, indirect, interrelated, and interdependent effects? What is the extent of habitat loss that would result from the proposed project?

The applicant avoids answering these questions. The applicant must address these issues and answer these questions fully and directly.

Excerpt from the Agency RAI:

50. How would the proposed mitigation offset the proposed impacts to the panther?

The assessment includes a traffic analysis section but does not specifically address the extent of the proposed traffic increases that would result from the implementation of the project. What is the specific anticipated increase in traffic (volume, location, etc.) and how would that increase impact the panther?

The applicant has refused to answer these questions. Particularly, in light of the analysis in the 2020 draft HCP BiOp and 2021 draft HCP BiOp, the applicant must address these issues and answer these questions fully and directly.

III. Conclusion

Thank you for considering our comments. We ask that you deny the Bellmar project because it would pose unacceptable direct, indirect, and cumulative impacts, and would seal the fate of the Florida panther. Bellmar, and other reasonably foreseeable projects, would not only remove habitat, but also would cause increased roadkill, increase human-wildlife interaction, and pose threats to trust resources and properties in conservation. Furthermore, Bellmar is inconsistent with the requirements of the State 404 Program.

Please note that this letter does not constitute support for the state-assumed section 404 permitting program, which we believe is unlawful.

Sincerely,

Julianne Thomas
Senior Environmental Planning Specialist
(239) 262-0304 x 252
juliannet@conservancy.org

Amber Crooks
Environmental Policy Manager
(239) 776- 5601
amberc@conservancy.org

Karimah Schoenhut
Staff Attorney
Sierra Club
Sierra Club Environmental Law Program
50 F Street NW, 8th Floor
Washington DC 20001
Phone: 202-548-4584
karimah.schoenhut@sierraclub.org

Elise Pautler Bennett
Florida Director & Senior Attorney
Center for Biological Diversity
P.O. Box 2155
St. Petersburg, Florida 33703
(727) 755-6950
ebennett@biologicaldiversity.org

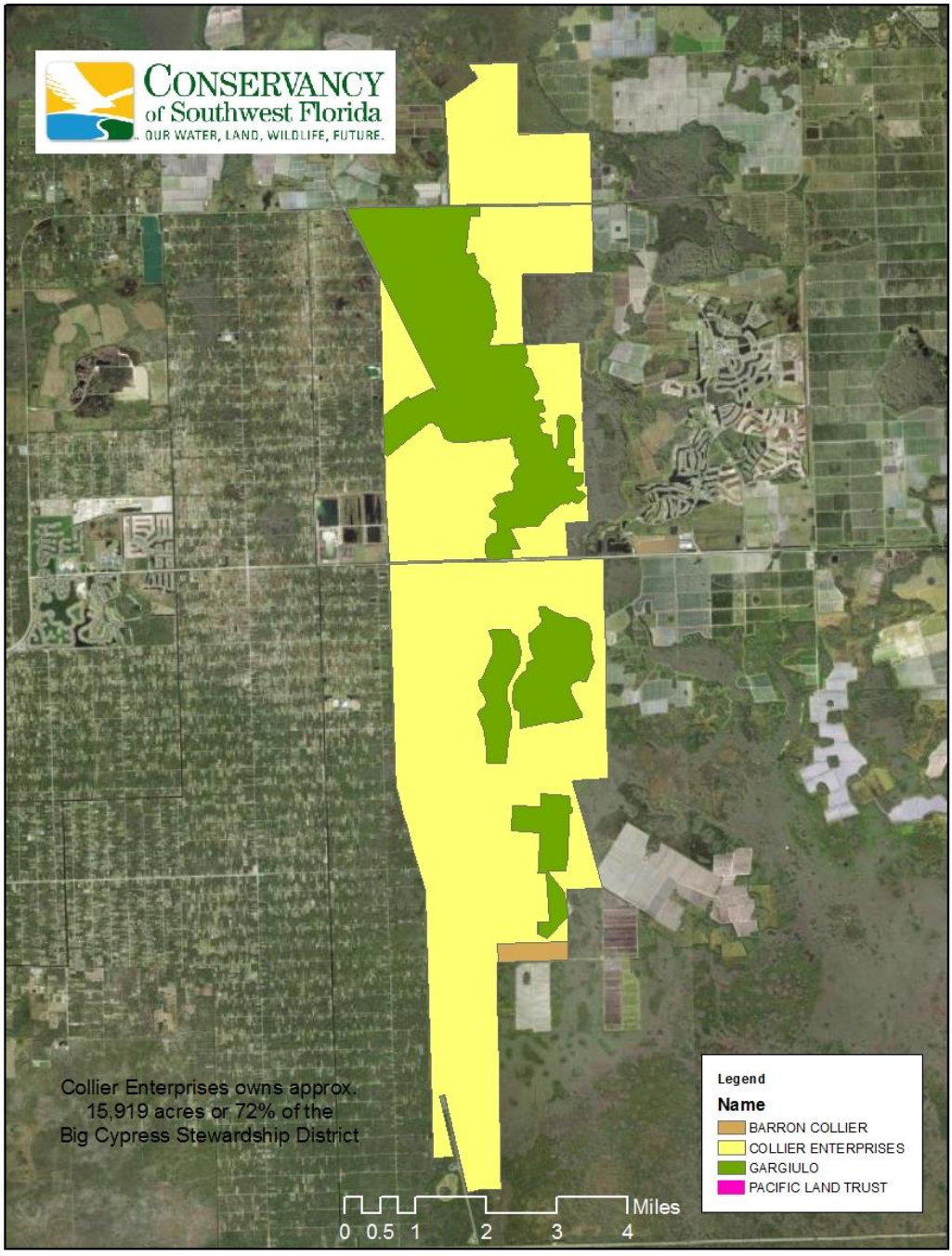
Cc:
Shannon Estenoz, Assistant Secretary for Fish and Wildlife and Parks, Department of Interior
Bob Carey, Environmental Review Branch Manager, USFWS
Jose Rivera, Environmental Review Supervisor, USFWS
John Truitt, Deputy Secretary, FDEP
Jon Iglehart, South District Director, FDEP
Megan Mills, Permitting Administrator, FDEP
Toby Schwetje, Environmental Specialist III, FDEP
Jason Hight, Director Office of Conservation Planning Services, FWC
Jeaneanne Gettle, Director of Water Division, EPA
Rosemary Calli, Section Chief Wetlands & Streams, EPA
FWC records FWCConservationPlanningServices@myfwc.com
FDEP records SD-ERPcomments@floridadep.gov

Attachment A

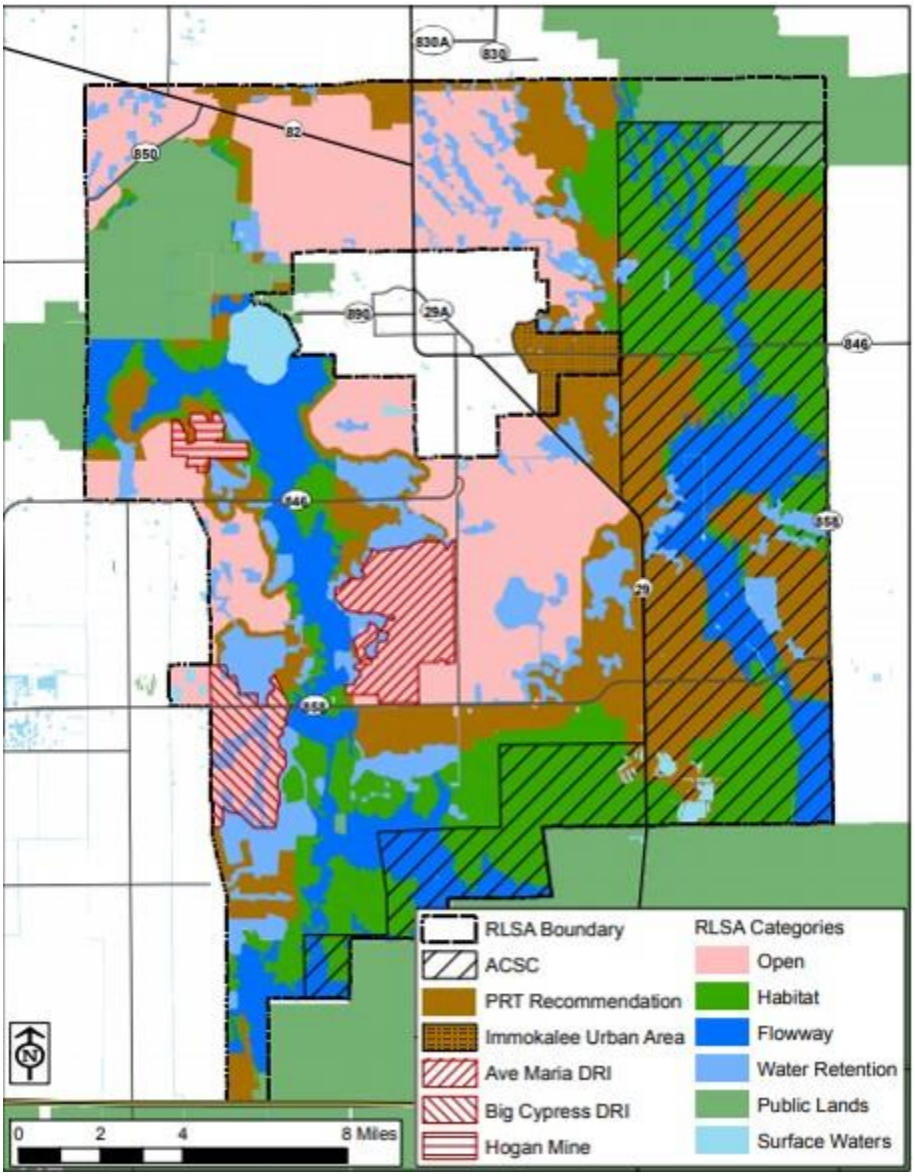
Table 2
Project Specific Trip Generation – Build-out Conditions – Average Weekday

ITE LUC	Daily Two-Way Volume	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Single Family Detached	**13,250**	284	850	**1,134**	911	535	**1,446**
Multifamily Housing (Low-Rise)	**8,729**	112	377	**489**	329	194	**523**
Office Park	**424**	36	4	**40**	2	27	**29**
Shopping Center	**5,383**	120	74	**194**	231	251	**482**
Total Traffic	**27,786**	552	1,305	**1,857**	1,473	1,007	**2,480**
Internal Capture	**806**	24	24	**48**	97	97	**194**
External Traffic	**26,980**	528	1,281	**1,809**	1,376	910	**2,286**
Pass-by Traffic	**748**	26	17	**43**	51	46	**97**
Net External Traffic	**26,232**	502	1,264	**1,766**	1,325	864	**2,189**

Attachment B



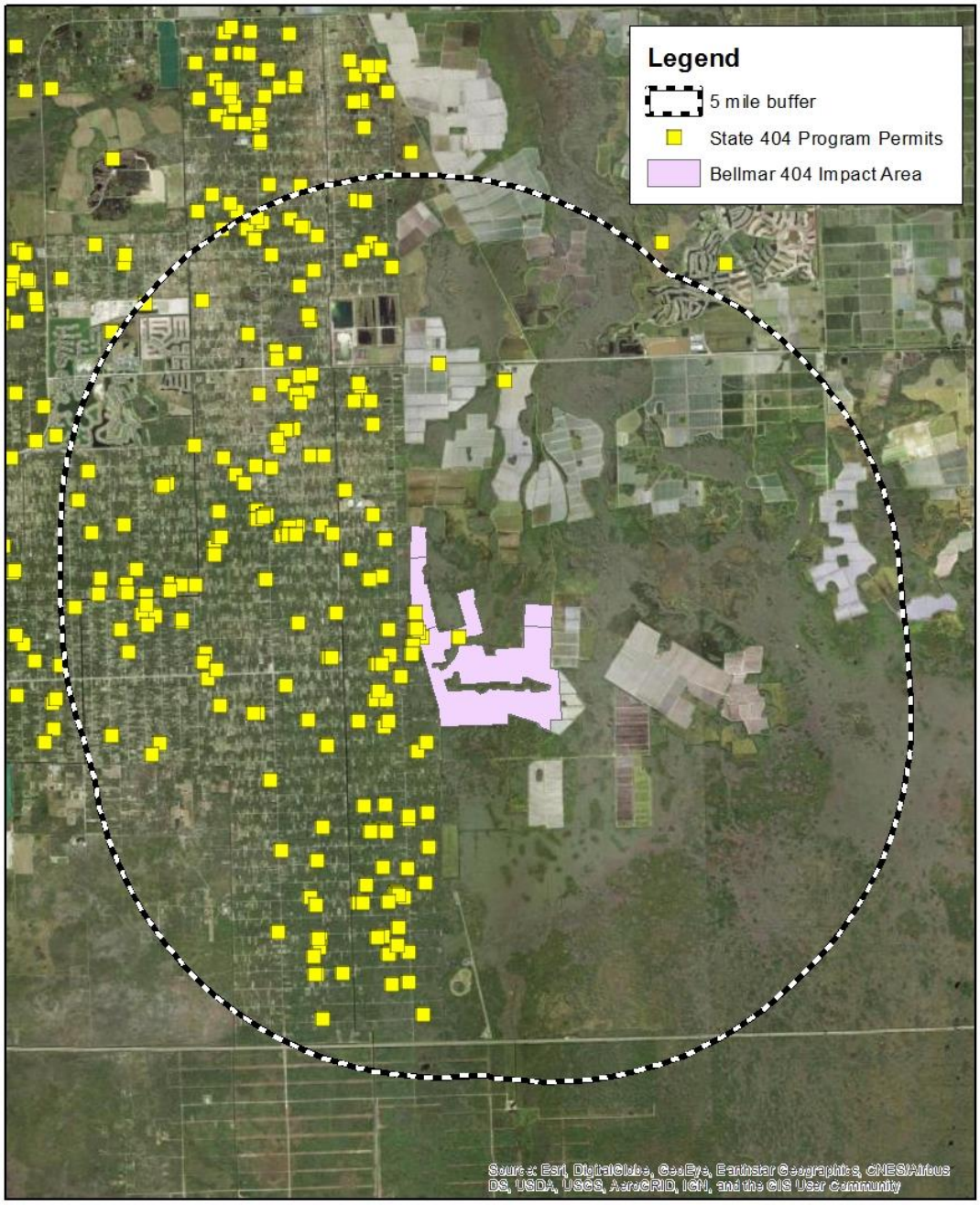
Attachment C[124]



[124] 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. Note that the PRT did not analyze the Big Cypress DRI (AKA Rural Lands West) but did find that the Bellmar state 404 area should be retained in no more intense than current agricultural uses.

Attachment D

Date: 9/13/2022

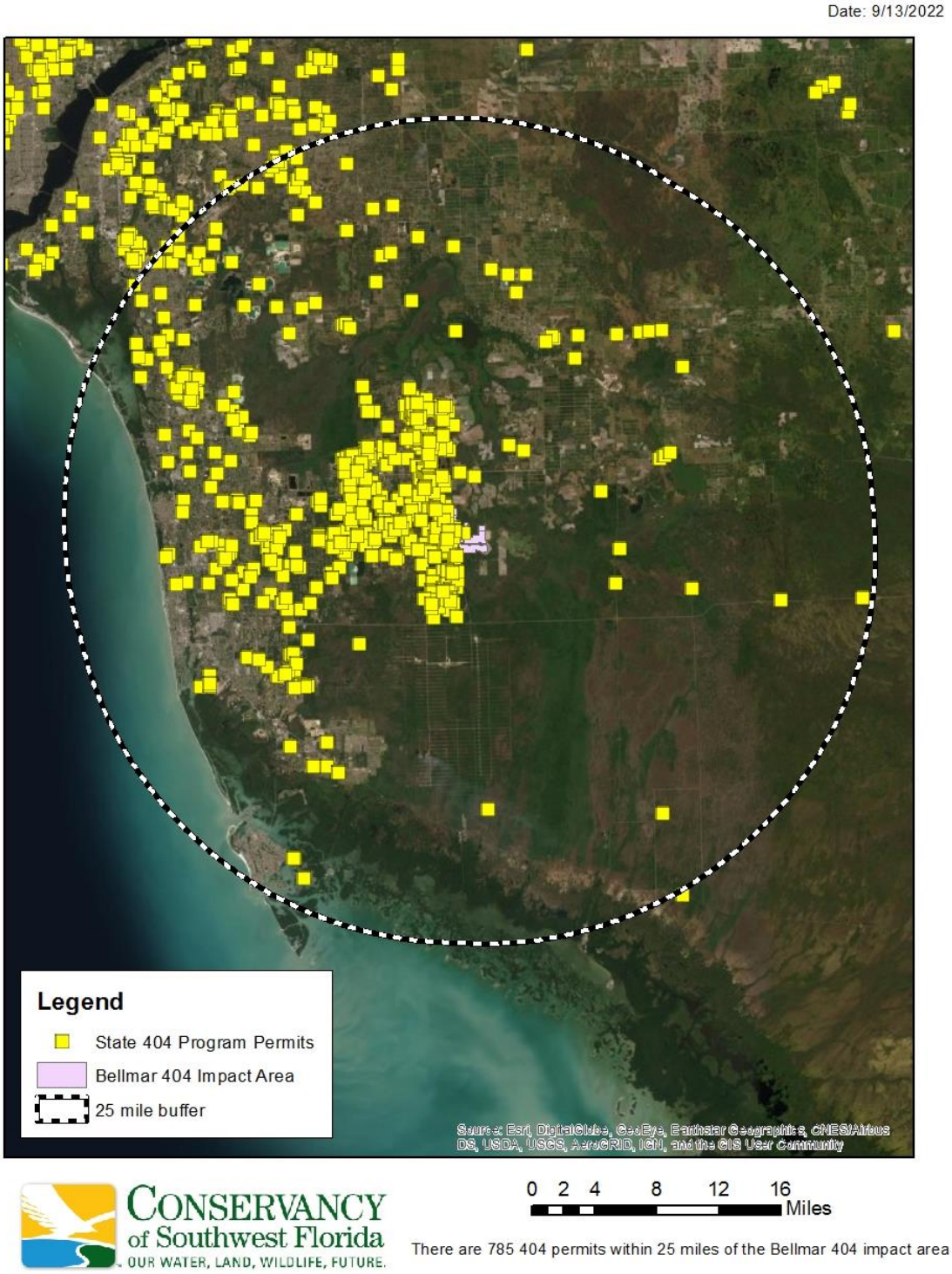


CONSERVANCY of Southwest Florida
OUR WATER, LAND, WILDLIFE, FUTURE.

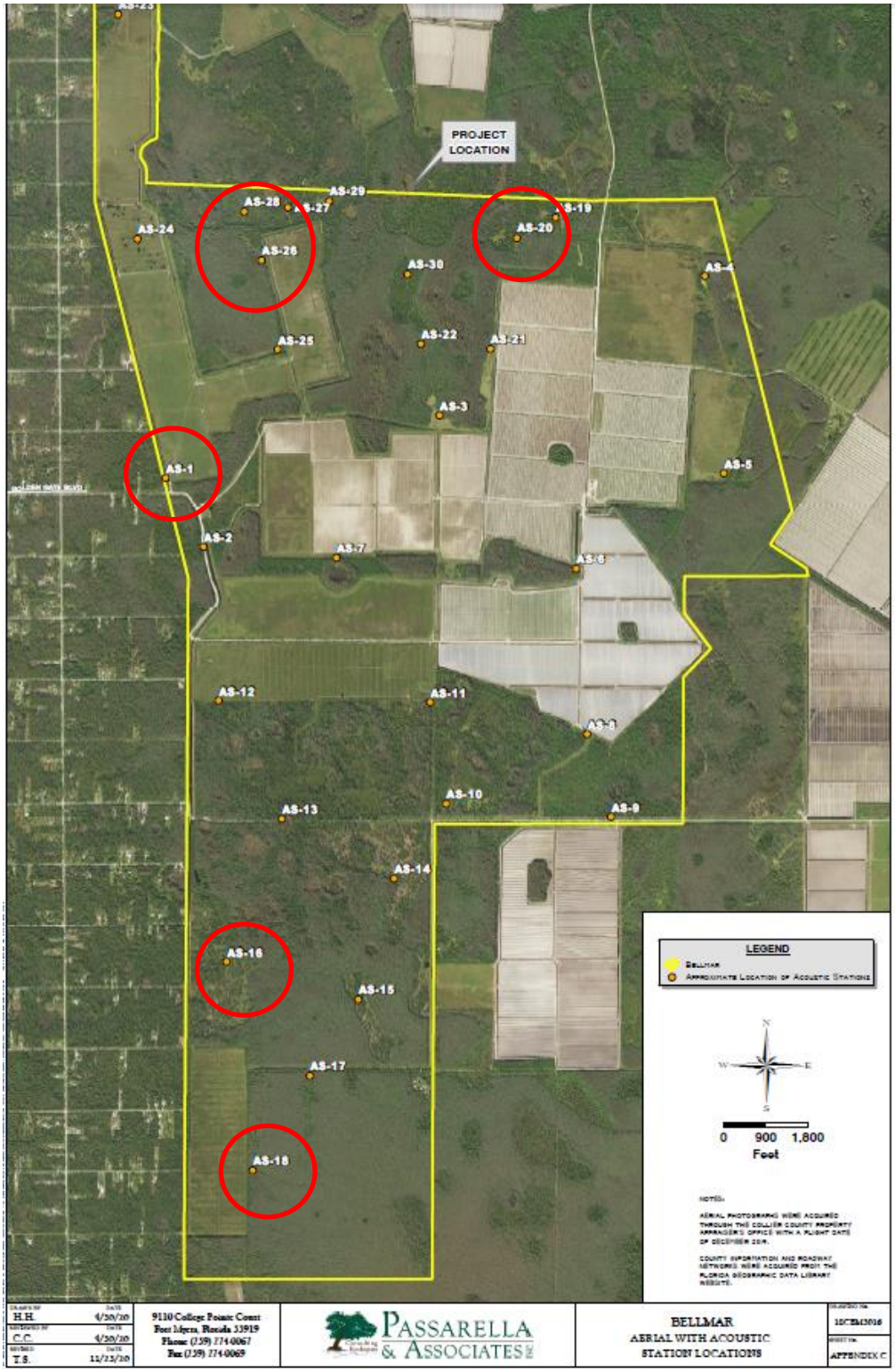
0 0.5 1 2 3 4 Miles

There are 259 404 permits within 5 miles of the Bellmar 404 impact area

Attachment E



Attachment F[125]



[125] Calls indicating roost nearby at stations #1, 16, 18, 20, 26, 28.

Attachment G

Attachment H