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Via Email

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Re: South Florida Wildlands Association comments on FDEP 404 Permit for Bellmar Village (*Permit Application No. 396364-001)*

Dear Toby:

South Florida Wildlands Association (SFWA) appreciates the opportunity to provide these comments on the Bellmar Development and associated construction in Collier County.

SFWA was founded in 2010 to protect wildlife and habitat in the Greater Everglades. It seems this current project, in one form or another, has been on our organization's radar for most of our history. It began as the Town of Big Cypress, morphed into Rural Lands West, was downsized to three separate villages of under 1,000 acres each, and finally returned as the project now being considered – the Town of Big Cypress made up of Rivergrass Village, Longwater Village, Bellmar Village, and the Town Center. The 404 application currently being considered is for the Bellmar Village component (approximately 1,000 acres) plus a 350-acre town center and 400 acres of "water management features and other ancillary components."

With a focus on the well-being of the Florida panther and the many species of native Florida wildlife which share its habitat, SFWA has remained deeply opposed to this project in its many

configurations. Our review of this project will therefore focus on the technical consultation for Bellmar carried out by the U.S. Fish and Wildlife Service (FWS) and written up in a State 404 Permit Application Review/Response Form dated October 31, 2023.

To begin with, the population estimates used in the consultation are far off the mark from the official estimates currently being used by the FWS and the Florida Fish and Wildlife Conservation Commission (FWC) – a population estimate of 120 to 230 adult panthers. That number was released by the FWC in 2017 and the updated count received a great deal of attention in the local media when it was announced. The estimate has been repeated countless times in news stories, press releases, and public meetings on the Florida panther. Yet the current analysis utilizes this statement when it comes to an estimated panther population:

In 2019, the McClintock et al. (2015) model was updated with six additional years of data, resulting in size point estimate of 407 panthers in 2018, with a 95 percent confidence interval ranging from 222 to 773 panthers.

As already noted, this estimate is much higher than the official estimate publicly offered by the FWC in 2017, the agency which FWS is relying on for the updated estimated population count we were told would be released shortly ("around the end of the year" according to FWS). That conversation was in response to SFWA's letter to the Service where we requested an updated Five-Year Status Review for the panther (the last review was written in 2009 and the new one was due in 2014) as well as an updated population count. That letter is attached to these comments and should be considered part of our comments here.

This is the source of the 2017 estimate referred to above:

Florida Fish and Wildlife Conservation Commission, *Determining the Size of the Florida Panther Population* (Feb. 2017),

https://myfwc.com/media/3107/determiningpantherpopulation2017.pdf

We also note that in spite of wide use by agencies, researchers, environmentalists, the media, and the public, there is no mention of the 2017 study and population estimates in the technical report provided to DEP. In the 2017 study, the lower number (120) was derived from a minimum population count conducted in 2015. The upper number in the range was derived by taking the best quality panther habitat (such as the habitat found in the Florida Panther National Wildlife Refuge) and extrapolating that same level of panther density to the rest of the primary zone. That methodology was practically guaranteed to produce an inflated and unrealistic number as much of the primary zone – e.g., Everglades National Park, the largest public land in the zone – no longer functions as a major part of primary zone habitat due to factors such as the Burmese python having eaten its way through virtually the entire mammalian prey base in the park. Its function was to serve as an upper boundary, though the media often summarized the count as "about 200" or "at least 200." Regarding the python and its impacts, the species has been expanding its range into the Big Cypress and other lands to the

north – threatening the panther's food supply across a much wider landscape in Southwest Florida. That fact is never mentioned in the FWS's current technical review of Bellmar.

We should add here that there is also no mention in the FWS consultation on Bellmar of the high-quality panther habitat in the Florida Panther National Wildlife Refuge (likely the best and most important in the state) – practically adjacent to the proposed Bellmar project and utilized by much the same panther population. Nor does the report note the dramatic recent decline in the quality of the habitat for panthers in places like Everglades National Park and Big Cypress National Preserve due to prey loss. And what effect that decline has had for the overall panther population which is a focus of the FWS report if jeopardy for the species is supposed to be accurately assessed and avoided. Although we have been informed that a more robust estimate of the panther population is currently in the works by the FWC, apparently the agencies (FWS and FWC) have chosen not to wait for its completion while they assess the impacts of projects like Bellmar and Kingston and the possibility of jeopardy for the panther.

There are many reasons to believe the Florida panther is struggling right now. A summary can be found in this paragraph from a recent letter sent by SFWA to FWS where we argue that the panther has likely already reached a state of "baseline jeopardy." SFWA's full letter of November 17, 2023, accompanies these comments as well as our earlier letter on the Five-Year Review. Both should be considered a part of these comments on Bellmar.

…there are many major threats now facing the panther that were not known at the time of the 2008 recovery plan or the 2009 status review. This includes many now-completed developments that were built in core panther habitat since 2009, and many more proposals that are currently being vetted by local governments and state agencies for construction in the next few years. These developments have not only permanently eliminated a significant amount of core panther habitat that is essential to survival and recovery, but they also induced a significant influx of human activity, road building, traffic, and other invasive disturbances that currently do not exist on these mostly rural and unpopulated tracts of land in panther habitat (all of which constitute take in the form of mortality, injury, harm, or harassment). In addition, in 2018, Florida panthers were first observed with a debilitating and often fatal disease called feline leukomyelopathy ("FLM"), which affects a panther's spinal cord and disrupts the animal's balance and disorients it. This inevitably leads to an inability to hunt as well as higher mortality rates from traffic and other human-induced disturbances. Moreover, recent deer surveys conducted by the National Park Service in Big Cypress National Preserve (traditionally considered the most important primary habitat for the panther) have indicated dramatic declines in the white-tail deer population, one of the panther's most important prey species. This is thought to be due in part to the rapid spread of the invasive Burmese python that is decimating the mammalian population in this region and has been expanding north into Collier, Lee, and Hendry Counties. These are only a few representative examples of new and troubling threats facing Florida panthers that FWS has never analyzed in any recovery planning or status review document.

Thus, many statements made by FWS in their analysis, such as those that relate to a "negligible" amount of habitat loss, have been given no context regarding the current status of the panther

– likely already in jeopardy - and whether those impacts are in any way sustainable for the current population. That relates to statements regarding habitat loss as well as anticipated roadkill. We note that the Florida Fish and Wildlife Conservation Commission (FWC) also minimized the impacts of habitat loss in their analysis of the impacts of this project on the panther. While the mathematics used in the analysis seems to work – the science does not. This much habitat loss plus vehicular traffic and other forms of human intrusion so close to the most important habitat and corridor the panther has left is almost surely going to have impacts that are not captured in the FWC statement below (based on FWS's conclusions):

Based on the available information, the proposed Bellmar residential project "may affect, and is likely to adversely affect" the Florida panther but "is not likely to jeopardize" the species since the loss of 1,793 acres of habitat represents a small portion of its overall range (0.15 percent) and since the proposed mitigation would provide compensation resulting in a net increase of PHUs. USFWS staff estimated that the project would result in harm to no more than four individual panthers from the construction of the project. USFWS staff has also estimated that the project would result in the loss of three panthers per year due to traffic volume and confirmed that the applicant committed to fund and install a panther-suitable wildlife crossing north of the project site as a minimization measure. USFWS staff confirmed this effect determination and provided specific conditions on September 14, 2023, that should be included in the State 404 permit. The applicant has also offered to implement voluntary conservation measures that would benefit the species.

If habitat loss on the Bellmar project alone is considered likely to cause this much mortality, a significant percentage of total annual panther mortality, its location is obviously packing a punch much larger than its size would indicate.

Regarding roadkill, we were astounded that both the FWS and FWC analysis acknowledged three additional panther deaths per year due to this project (four in the first year):

Based on the expected 13 percent increase over current background traffic generated by the Project, the Service estimates three additional panthers could be killed by vehicle collision annually upon Project buildout in 2042. Therefore, for the purposes of estimating impacts to panthers, we assume the Project could result in the loss of four panthers the first year of Project completion, and three panthers each year following.

FWS and FWC clearly understand that Bellmar is not the only project of this kind moving into the panther's core habitat of Southwest Florida. Longwater Village, Rivergrass Village, Immokalee Road Rural Village, Brightshore Village, Randall at Orangetree, the expansion of Ave Maria, and the Collier Rod and Gun Club are all examples of additional projects that are about 10 miles or less from Bellmar. A foraging panther could theoretically reach all of them in a single night of hunting with a range of 15 to 20 miles. If we go out to the 25-mile "action area" described in the analysis, then we must include the massive 6,000-acre+ Kingston development in addition to other developments in the works or already under construction in Lee and Hendry Counties.

If we then extrapolate the three annual panther deaths from Bellmar to the many projects that are on the way (even if some will not reach the level of take anticipated from Bellmar), it is inconceivable that a small, isolated population of Florida panthers, already under threat of jeopardy from the past and current stressors noted above, could possibly survive this level of take. We also note that "jeopardy" applies not only to the threat to the continued existence of the panther, but to its chances of recovery. Somehow recovery, one of the key goals of the Endangered Species Act, is not even mentioned in the FWS technical analysis. Recovery under current circumstances will be difficult at best. Recovery with many thousands of acres of habitat loss plus the addition of tens of thousands of additional vehicle trips in the core habitat would appear to be impossible – and conflicts with the very purpose of the Endangered Species Act.

Regarding roadkill, we would also point DEP reviewers to vehicle mortality for the current year which backs up the above statements regarding risk to the population. Total roadkill for Florida panthers in 2023 is significantly lower than in recent years with 13 panthers killed as of December 6th. Using the same calendar date from previous years, that number compares to 26 mortalities in 2022, 27 in 2021, 20 in 2020, 26 in 2019, 27 in 2018, and 28 in 2017. In all years, the vast majority of mortality is the result of vehicle collisions.

We also note that there was an increase in panther mortality following the successful introduction of eight female Texas cougars into the Southwest panther population in mid-nineties to relieve genetic abnormalities caused by inbreeding. At the time, FWS attributed the uptick in vehicle mortality to an increased size of the size of the overall population. FWS made the same assertion in their current analysis for Bellmar:

It should be noted that there is considerable uncertainty when correlating the number of panther deaths due to vehicle strikes to the overall population. This is because an increase in the number of panthers hit by cars may indicate an increase in the total number of panthers in the population and may not be attributable to a change in the volume of traffic.

We agree with that statement – but the reverse is also true and a sharp decline in roadkill can be linked to a declining population. SFWA thus believes it is extremely likely that the decrease in panther deaths in 2023 may well be attributable to a dramatic decrease in the overall population due to the many factors noted above. We also note that nearby counties with high traffic volumes – e.g., Broward, Miami-Dade, and Palm Beach Counties – have few to no instances of panther mortality by vehicle. The simple reason is that, while panthers were present in those counties in historical times (especially along the high and dry Atlantic Coastal Ridge and the pine rocklands of Miami-Dade), the current high levels of traffic and development (in addition to water management infrastructure which has destroyed the habitat values of the remaining Everglades in the counties mentioned) have completely extirpated the Florida panther from those vast swaths of former habitat in South Florida.

Nevertheless, even in a year when panther deaths were extraordinarily low, a large proportion of deaths (100% of known mortalities this year have been due to vehicles) occurred near the Bellmar project site. Those included two deaths on SR 29 south of Oil Well Road, one on Oil Well Road, one on DeSoto Blvd, and one on Immokalee Road. Though FWS refers to panther

deaths as “stochastic” or random occurrences – and that might be the case for panther deaths taken individually - the pattern of roadkill over time is clear. Panthers are killed by vehicles where roads go through important parts of the remaining habitat and where levels of traffic make collisions likely. Highways like SR 29, which borders both the Florida Panther National Wildlife Refuge and the Big Cypress National Preserve, light up on panther mortality maps. And roadkill on SR 29 is likely to get even worse if Bellmar is constructed. It will become a major access route for Bellmar and other parts of the Town of Big Cypress as it is the most direct route that connects the community to I-75. Traffic will increase as residents use the road to get to and from population centers on the Gulf Coast as well as the Southeast Florida Metropolitan Area. Bellmar is surrounded by roads where the likelihood of collisions is high. And whereas the site is currently a tomato field with only non-public farm roads going through it, that will change dramatically once the site is fully approved, constructed, and inhabited.

It is impossible to cover all the impacts we believe Bellmar will have on a panther population that we believe is likely to have already arrived at a state of jeopardy – both regarding its continued existence and its chances of a recovery. DEP’s 404 permitting program is supposed to factor in the “public interest” in its decision-making. Bringing Florida’s beloved State Animal closer to extinction (and there is no question that is the case here) hardly represents that interest.

DEP should reject this assessment by the FWS and FWC and ask them to begin anew. The Service should fully assess the panther for its current state of “baseline jeopardy” and advise no further development in the habitat until that assessment is accurately made. The Service should also complete the required Five-Year Status Review for the Florida Panther, the updated population count, and the Species Status Assessment before any assessments are made of individual projects. The Service should consider all factors regarding the panther’s current status and the impacts it has already identified for Bellmar before concluding that those impacts are “negligible” and will not cause jeopardy. Stress factors such as the Burmese python and its capacity to diminish or eliminate prey for the panther and the consequences of feline leukomyelopathy should also be considered as part of the panther’s current baseline condition. Neither were even mentioned in the Service’s technical document. The Service should take a “hard look” at the cumulative impacts from all the projects now in the works alongside Bellmar and not conclude that they were all fully considered “in advance” by the Programmatic Biological Opinion for the transfer of authority from the Army Corps of Engineers to the Florida DEP regarding 404 wetlands permitting. Each project will be unique in terms of size, location, traffic generated, and other impacts – and must be considered in the context of the total array of projects and other factors impacting and likely to impact the tiny amount of habitat the panther has left.

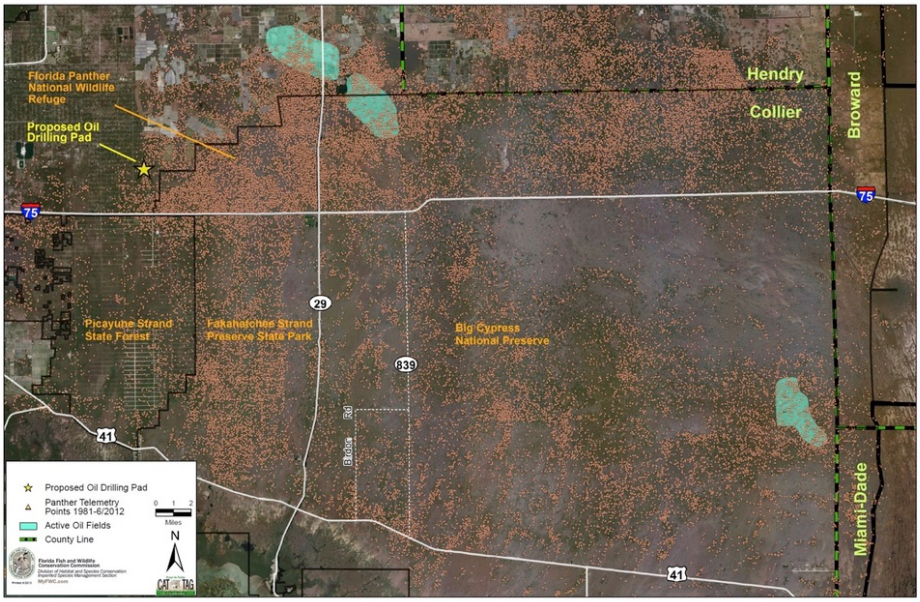
Based on the current reviews offered by the FWS and the FWC, we believe the wildlife regulatory agencies are walking the Florida panther onto a path that will lead to its eventual extinction if they continue the course they are now on. The many acres of roadless habitat that exists today are essential to the future of the Florida panther in the only part of Florida that currently supports a breeding population. That was the conclusion of the Frakes, et al study

(Landscape Analysis of Adult Florida Panther Habitat, 2015) carried out by former FWS scientists with considerable expertise in this subject area.

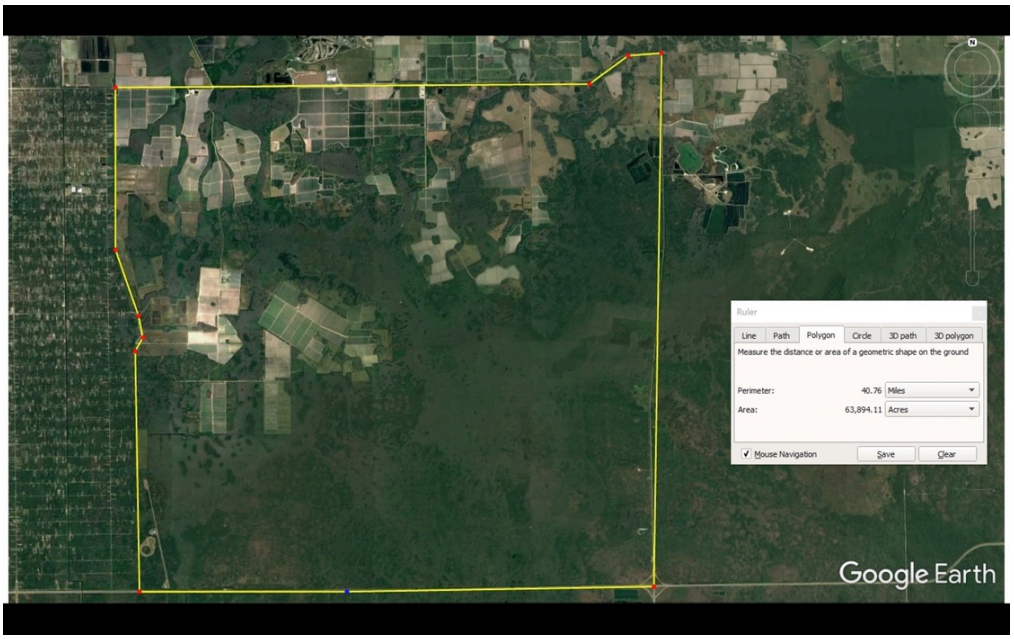
Because there is less panther habitat remaining than previously thought, we recommend that all remaining breeding habitat in south Florida should be maintained, and the current panther range should be expanded into south-central Florida. This model should be useful for evaluating the impacts of future development projects, in prioritizing areas for panther conservation, and in evaluating the potential impacts of sea-level rise and changes in hydrology.

The consequences from substantial losses to that habitat cannot be dismissed as easily as the Service and the FWC has done with Bellmar. The agencies must do better.

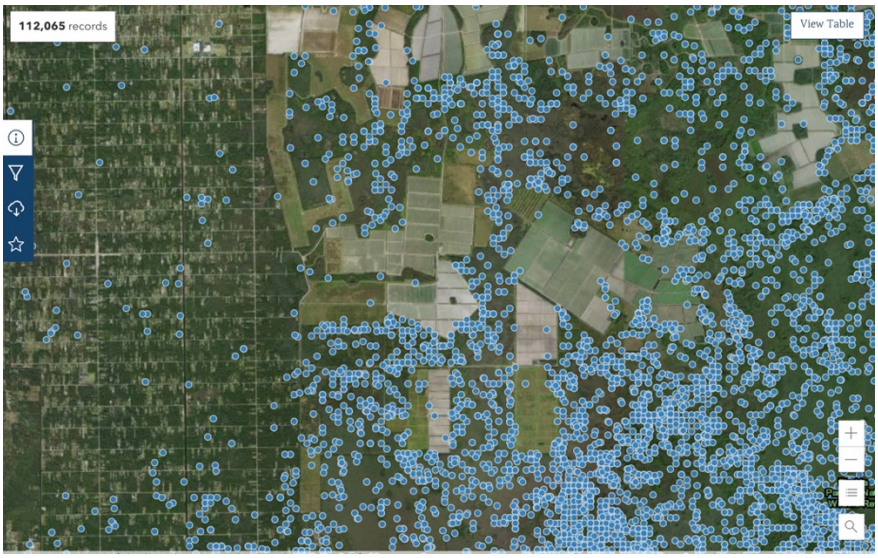
Some graphics below illustrate many of the points raised in this comment letter:



Dense panther telemetry (the densest in the state) in the vicinity of Bellmar and the Florida Panther National Wildlife Refuge.



The block of land where Bellmar is located. Bounded on the north by Oil Well Road, on the east by SR 29, on the south by I-75, and on the west by the edge of the Golden Gate Estates, this 64,000-acre area currently has no human presence – other than daytime farmworkers.



Dense panther telemetry surrounding the Belmar site. Data has been collected by overflights during the day when panthers are resting in forested areas. It does not show the full use of this part of the primary zone – including agricultural lands - during nighttime foraging.

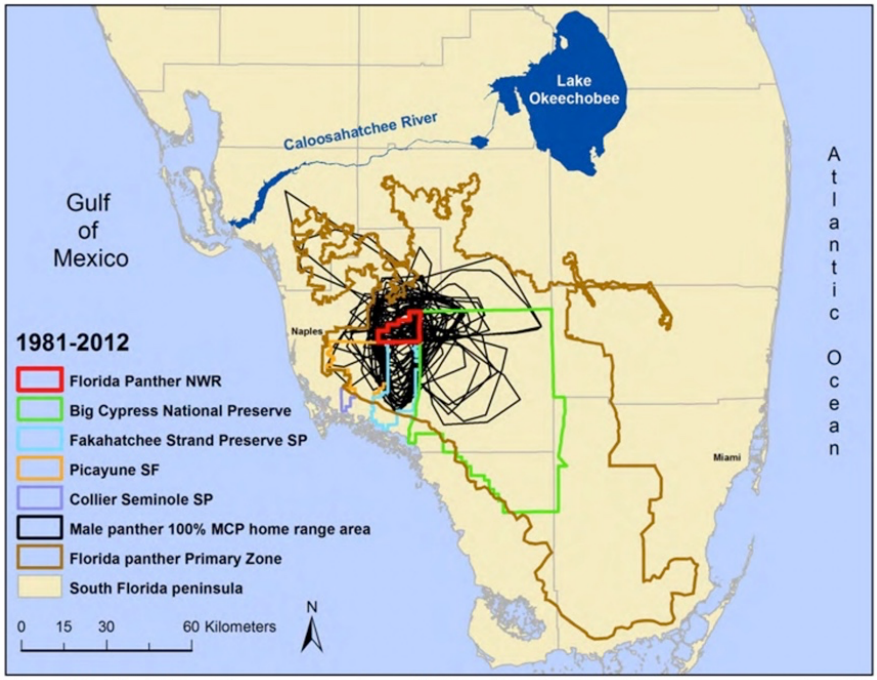
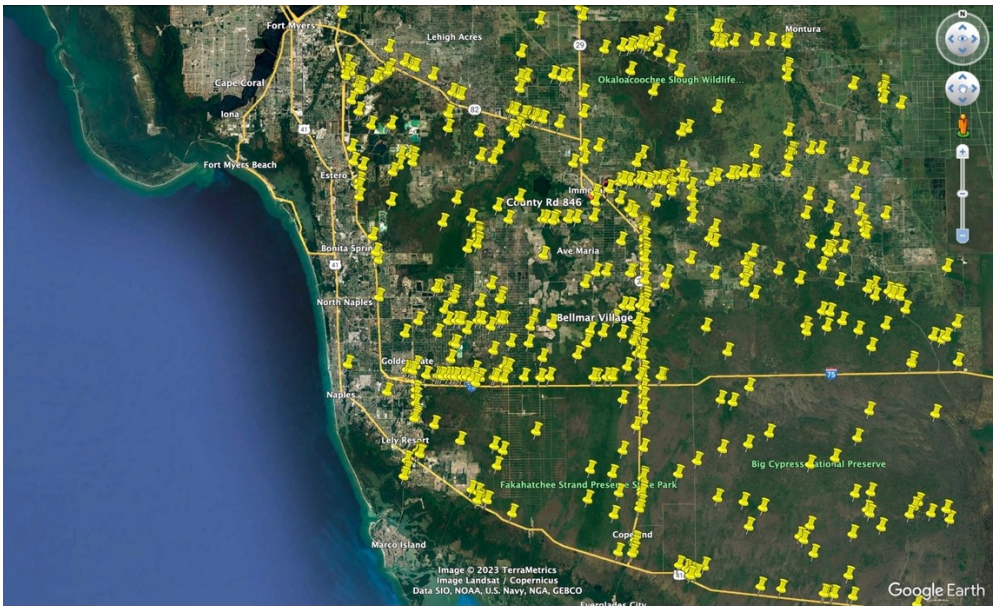


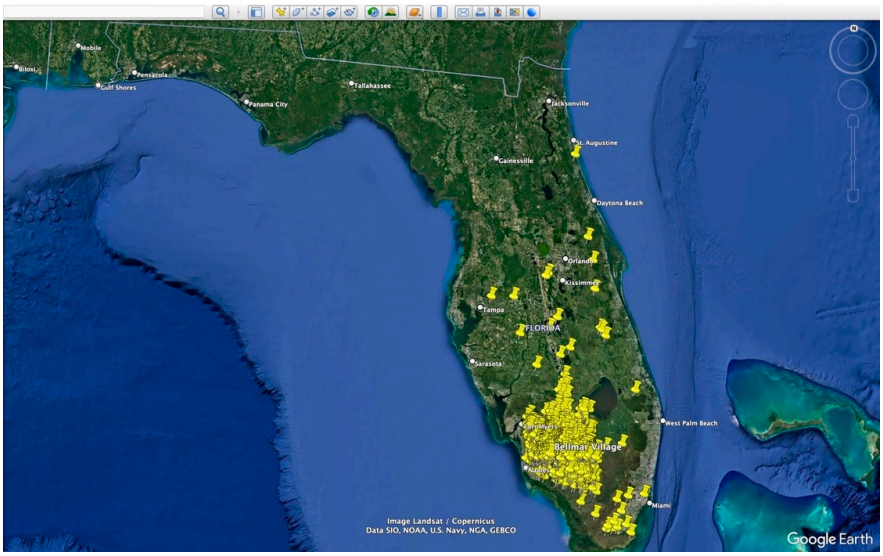
Figure 11b. The 100% minimum convex polygon (MCP) male panther (n = 23) home range areas (n = 62) shown in Figure 12, were calculated from an analysis of panther telemetry data (1981-2012) from individual panthers that were alive during each month of a calendar year and had at least 1 location each year within the boundary of the Florida Panther National Wildlife Refuge (106.8km2).

The image and description show high use of the Panther Refuge and the surrounding areas. In all the "minimum convex polygons" we have seen on this map and others, no Florida panthers confine their range only to the Panther Refuge. They make use of and travel through a much larger habitat – including the Bellmar site adjacent to the heavily used Refuge.



Panther mortality map with incidents highlighted by yellow pushpins in Southwest Florida. Most of it is the result of roadkill with the Bellmar site surrounded by many roadkill locations. Wildlife crossings will not solve this problem as the many roadways crossed by panthers cannot be fenced – the human population will require egress and ingress. It is not surprising that FWS

predicts an increase of three dead panthers annually from construction of Bellmar. Given the locations of panther habitats and roadways, the places where panthers are killed remain similar year after year and are predictable.



Map of panther roadkill statewide shows the concentration of panthers and roadkill in the small corner of Southwest Florida where the breeding population of panthers still exists. Panthers are not found "all over the state" and in large numbers as some members of the public assert. The Florida panther is a large and wide-ranging predator that is both geographically and genetically isolated in Southwest Florida – despite occasional movement into rapidly developing Central Florida. The population shown here – highlighted by mortality – represents the only breeding puma population left in the entire Eastern United States. The panther is thus important to the natural heritage of our country and important to the public far beyond Florida.

First observed in 2018, panthers and bobcats in Florida are suffering from a newly discovered disease called feline leukomyelopathy or FLM. Though the disease has been named, neither the cause, the mode of transmission, nor the number of panthers affected is known. As seen in this NPS trail cam capture, FLM targets the rear legs leading to weakness and difficulty in walking.

A Burmese python devouring a deer. Though annual "round-ups" are organized and paid python trappers have removed thousands of these highly invasive snakes, the snakes continue to spread north from its original stronghold inside Everglades National Park – devouring the panther's prey base in the process. As mentioned above, it is strange to say the least that FWS did not mention this factor in their analysis of the panther's current status.

Thank you again for your consideration of these comments. Feel free to contact me with any questions or concerns.

Best regards,

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