

Appendix B

Biological Resources



U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Safety

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Washington, DC 20591

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SUBJECT: Endangered Species Act Section 7 Consultation for Drone Commercial Package Delivery Operations in Florida
Project Codes: 2025-0110021, 2025-0110029, 2025-0110034, and 2025-0110007

In accordance with Section 7 of the Endangered Species Act (ESA), the Federal Aviation Administration (FAA) is requesting U.S. Fish and Wildlife Service (USFWS) concurrence that the FAA's action of authorizing Amazon Prime Air (Prime Air) to conduct commercial drone package delivery operations from six Prime Air Drone Delivery Centers (PADDCs) located throughout Florida (the Proposed Action), is **not likely to adversely affect** the tricolored bat (*Perimyotis subflavus*), Florida bonneted bat (*Eumops floridanus*), Crested Caracara (*Caracara plancus audobonii*), Eastern Black Rail (*Laterallus jamaicensis spp. jamaicensis*), Everglade Snail Kite (*Rostrhamus sociabilis plumbeus*), Rufa Red Knot (*Caliris canutus rufa*), Whooping Crane (*Grus americana*), Wood Stork (*Mycteria americana*), and Piping Plover (*Charadrius melodus*). Additionally, the Proposed Action would have **no effect** on Florida Scrub Jay (*Aphelocoma coerulescens*), Red-Cockaded Woodpecker (*Dryobates borealis*), Black-Capped Petrel (*Pterodroma hasitata*), and monarch butterfly (*Danaus plexippus*).

Project Description

Prime Air is seeking authorization to conduct commercial package deliveries using drones throughout the state of Florida. Prime Air intends to introduce its drone delivery capabilities in 2025 and has requested the FAA to authorize the operation of its MK30 drone, so it can provide drone package delivery services across its operating area. The six proposed MK30 operating areas and PADDCs are depicted in **Attachment A**.

Prime Air anticipates flying up to approximately 1,000 MK30 drone flights per operating day from each of the six PADDCs, with each flight taking a package to a customer delivery address before returning to the PADDC. The number of flights per day would vary based on customer demand and weather conditions. Prime Air is taking an incremental approach to operations and expects to gradually ramp up to approximately 1,000 flights per day per PADDC as consumer demand increases over time. Drone flights could be conducted up to 365 days a year between 7 A.M. and 10 P.M.

Unmanned Aircraft

As pictured in **Attachment B**, the MK30 drone is a hybrid multicopter fixed-wing tail-sitter drone with six propulsors allowing it to take off and land vertically and transition to wing borne flight. Its airframe is composed of staggered tandem wings for stable wing borne flight. The drone weighs approximately 78 pounds and has a maximum takeoff weight of approximately 83 pounds, which includes a maximum package payload of 5 pounds. It has a maximum operating range of 7.5 miles (or about 15 minutes) and

can fly up to 58 knots (67 miles per hour) during wing-borne flight. It uses electric power from rechargeable lithium-ion batteries and is launched vertically using powered lift and converts to using wing lift during en route flight. The MK30 is equipped with collision avoidance technology to help avoid conflicts with other aircraft and drones; however, no effective technology exists that can be used to help avoid collisions with wildlife.

Flight Operations

The MK30 drone would generally be operated at an altitude between 180 and 377 feet above ground level (AGL). The outbound en route altitude to a delivery location is expected to be flown between 180 and 279 feet AGL. The inbound en route altitude is expected to be flown between 279 and 377 feet back to the PADDC. At a delivery location, the drone would descend vertically to a stationary hover and drop a package to the ground. Once a package has been delivered, the drone would ascend vertically to the inbound transition altitude and depart the delivery area while climbing to the en route altitude to return to the PADDC. The PADDC is a controlled area wherein drone flights are launched and recovered. The drone would fly a predefined flight path that is set prior to takeoff. Flight missions would be automatically planned by Prime Air's flight planning software, which assigns, deconflicts, and routes each flight. In accordance with FAA safety requirements, the drone would avoid operating over areas with dense human populations, such as over roadways, public gathering spots, etc.

Takeoff

Once a package is loaded onto the MK30 drone and the drone is cleared for departure from the PADDC, the drone takes off from the ground vertically to an altitude of about 115 feet AGL and then transitions and climbs to its en route altitude of about 200 feet AGL (ranges from 180 and 279 feet AGL). The takeoff phase of flight would last less than one minute.

En Route Outbound

The en route outbound phase is the part of flight in which the MK30 drone transits from the PADDC to a delivery point on a predefined flight path. During this flight phase, the drone will typically operate at a typical en route altitude of 200 feet AGL with a typical airspeed of 58 knots (67 miles per hour).

Delivery

The delivery phase consists of descent from the en route altitude to a delivery point to deliver a package. The MK30 drone transitions and descends to about 140 feet AGL and then vertically descends to about 13 feet AGL while maintaining position over the delivery point. The drone hovers while dropping the package and then proceeds to climb vertically back to the inbound transition altitude of 197 feet AGL. The MK30 then transitions and climbs to its en route inbound altitude of 345 feet AGL (ranges from 279 to 377 feet AGL). The delivery phase of flight would last approximately one minute.

En Route Inbound

The MK30 drone continues to fly at a typical en route altitude of about 345 feet AGL with a speed of 58 knots towards the PADDC.

Landing

The drone decelerates as it approaches the PADDC and descends to the transition altitude of 197 feet AGL and where it transitions from horizontal flight to vertical flight, coming to a zero-speed position over its assigned landing pad. The MK30 drone slowly descends over its assigned landing pad and lands on the pad.

Predicted Sound Levels

Based on a noise analysis using sound level measurement data for the MK30 drone, the estimated maximum sound exposure level (SEL) for the takeoff, delivery, and landing phases of flight is

approximately 90.5 (at 20 feet), 92.1 (at 25 feet), and 91.8 dB (at 20 feet), respectively. Predicted sound levels decrease as distances from the drone increase. The maximum SEL for the en route phase is approximately 63.7 dB when the drone is at an altitude of 200 feet AGL and flying at approximately 58 knots (67 miles per hour). The detailed noise analysis is provided as **Attachment C**.

Action Area

The action area is defined as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR § 402.02). For this Proposed Action, the action areas are defined as Prime Air's six proposed MK30 operating areas, as depicted in Attachment A. These areas capture all possible flight routes to the delivery areas and where potential effects (e.g., visual, auditory, physical) to listed species could occur.

The action area falls into two different ecoregions. The first ecoregion is the Southern Coastal Plain Ecoregion, and more specifically the Southwestern Florida Flatwoods and Eastern Flatwoods Subregion. The Southwestern Florida Flatwoods Subregion includes Pasco County, to the north, to Lee County, to the south on coastal west Florida; the entirety of Hardee and DeSoto Counties; and portions of Polk, Glades, Hendry, and Collier Counties. It includes barrier islands and peninsulas, Gulf coastal lowlands and valleys, as well as high elevation areas such as the DeSoto Plain and the Polk or Bone Valley Upland. This subregion contains most of the forested Green Swamp area, extensive areas of pasture and rangeland, spreading urbanization, disturbed lands from phosphate mining, and citrus groves to the south. The Eastern Flatwoods Subregion includes St. Johns County to the north and Palm Beach County to the south, is ribbed by sand ridges and some intervening swampy lowlands. Land uses include cropland and pasture, pine plantations, non-forested wetlands, and urban/suburban.

The second ecoregion is the Southern Florida Coastal Plain. It is characterized generally as flat plains with wet soils, marshland, and swamp land cover with everglades and palmetto prairie vegetation types. Specifically, within the ecoregion, the subregion is called the Miami Ridge/Atlantic Coast Strip, which includes southeastern Palm Beach County to the north and Miami-Dade County to the south. Much of the area is urban/built up, cropland, agriculture and pasture.

As indicated above, the Proposed Action would take place over high to medium density developed urban, commercial, and industrial areas, and some rural and agricultural areas scattered throughout the action area. The action area also includes some managed lands and conservation areas. However, flights within these areas would be minimal since most deliveries would be to urban areas. Portions of the Everglades Wildlife Management Area, Grassy Waters Preserve, Cockroach Bay Aquatic Preserve, Little Manatee River State Recreation Area, Hillsborough River State Park, Cypress Creek Nature Preserve, Lower Hillsborough Wildlife Management Area, and John D. MacArthur Beach State Park are within the action areas. These lands are comprised of natural uplands, wetlands, and surface water communities which have the potential to provide habitat for a variety of state and federal protected species. Other habitats utilized for wildlife within urban and developed portions of the action areas include parks, a few open spaces, waterways, and vacant lands. These areas provide habitat for many of the more common and ubiquitous bird and mammal species in the region, including white-tailed deer, eastern gray squirrels, eastern cottontails, raccoons, armadillos, mice, songbirds, raptors, waterfowl, and insects.

ESA-Listed Species and Critical Habitat in the Action Area

For the initiation of USFWS Section 7 Consultation, the FAA acquired Official Species Lists from the USFWS Information for Planning and Conservation (IPaC) online system to identify ESA-listed,

proposed-listed, and candidate species within four regions/action areas of the overall project. Species Lists were generated for the following: SFL 1 (Orlando Action Area, USFWS Project Code 2025-0110021), SFL 6 (West Palm Beach Action Area, USFWS Project Code 2025-0110029), SFL 3 and SFL 9 (Miami Action Area, USFWS Project Code 2025-0110034), and TPA 1 and TPA 4 (Tampa Action Area, Project Code 2025-0110007). For each Project/Action Area, the Tricolored Bat Range-wide Determination Key (Dkey) was entered online. The USFWS Official Lists and Dkeys are provided as **Attachment D**. Based on earlier coordination with USFWS, of the species identified in the IPaC review, only 13 species were followed through for additional analysis to determine if they may be affected by the drone operations. These are listed below in **Table 1**.

The remaining species identified include aquatic species, terrestrial mammals, and plants which would not be affected by the proposed action. These species include: West Indian manatee (*Trichechus manatus*), Florida panther (*Puma concolor coryi*), American crocodile (*Crocodylus acutus*), American alligator (*Alligator mississippiensis*), Eastern indigo snake (*Drymarchon couperi*), sand skink (*Neoseps reynoldsi*), green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), Kemp's ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), loggerhead sea turtle (*Caretta caretta*), Gulf sturgeon (*Acipenser oxyrinchus desotoi*), Britton's beargrass (*Norina brittoniana*), Florida bonamia (*Bonamia grandiflora*), pygmy fringe-tree (*Chionanthus pygmaeus*), beautiful pawpaw (*Deeringothamnus pulchellus*), papery whitlow-wort (*Paronychia chartacea*), pigeon wings (*Clitoria fragrans*), sandlace (*Polygonella myriophylla*), scrub lupine (*Lupinus aridorum*), scrub plum (*Prunus geniculata*), beach jacquemontia (*Jacquemontia reclinata*), Florida prairie-clover (*Dalea carthagenensis floridana*), four-petal pawpaw (*Asimina tetramera*), tiny polygala (*Polygala smallii*), Blodgett's silverbush (*Chromolaena frustrata*), Carter's mustard (*Warea carteri*), Carter's small-flowered flax (*Linum carteri carteri*), crenulate lead-plant (*Amorpha crenulate*), deltoid spurge (*Chamaesyce deltoidei* spp. *deltoidei*), Everglade bully (*Sideroxylon reclinatum* spp. *Austrofloridense*), Florida Brickell-bush (*Brickellia mosieri*), Florida pineland crabgrass (*Digitaria pauciflora*), Florida prairie-clover (*Dalea carthagenensis*), Florida semaphore cactus (*Consolea corallicola*), pineland sandmat (*Chamaesyce deltoidei pinetorum*)

Table 1. ESA-Listed Species, Species Proposed for Listing, and Candidate Species Potentially Present which have potential to be affected in the Action Areas

Species	Common Name	Species Name	Federal Status	PADDC
Mammals	Tricolored bat	<i>Perimyotis subflavus</i>	Proposed Endangered	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Florida bonneted bat	<i>Eumops floridanus</i>	Endangered	SFL3, SFL6, SFL9
Birds	Crested Caracara	<i>Caracara plancus audobonii</i>	Threatened	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Eastern Black Rail	<i>Laterallus jamaicensis spp. jamaicensis</i>	Threatened	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Everglade Snail Kite	<i>Rostrhamus sociabilis plumbeus</i>	Endangered	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Florida Scrub Jay	<i>Aphelocoma coerulescens</i>	Threatened	TPA1, TPA4, SFL1, SFL6
	Rufa Red Knot	<i>Calidris canutus rufa</i>	Threatened	TPA1, TPA4
	Whooping Crane	<i>Grus americana</i>	Experimental Population, Non-Essential	TPA1, TPA4, SFL1
	Wood Stork	<i>Mycteria americana</i>	Threatened	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Red-Cockaded Woodpecker	<i>Dryobates borealis</i>	Threatened	SFL1, SFL6
	Black-Capped Petrel	<i>Pterodroma hasitata</i>	Endangered	SFL6
	Piping Plover	<i>Charadrius melodus</i>	Threatened	SFL6
Insects	Monarch butterfly	<i>Danaus plexippus</i>	Candidate Species	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9

SOURCE: USFWS IPaC, accessed June 2025.

Potential Effects of the Proposed Action on ESA-Listed, Proposed Listed, and Candidate Species

Drone noise, visual presence, and the potential for airborne strikes with flying species are the Proposed Action’s potential stressors or threats to ESA-listed species. Flight operations would take place mostly in an urban environment, within airspace, and typically remain well above the tree line while en route to and from the PADDC. The duration of exposure by wildlife on the ground to visual or noise impacts from the drone would be of very short duration (approximately 30 seconds during takeoff/landing and delivery and a few seconds during the en route phase).

As noted above, the highest estimated SEL associated with Prime Air’s proposed operations is 92.1 dB, which would occur during delivery. For reference, the sound level of a diesel truck at 50 feet or a noisy urban environment during the day is approximately 80 to 90 dB. The SEL on the ground when the drone is at an altitude of 200 feet AGL is estimated to be around 63.7 dB, which is comparable to the sound of an air conditioning unit at 100 feet (60 dB). The MK30 drone is expected to operate at altitudes higher than 200 feet AGL during en route flight; as such, the en route sound level is expected to be less than 63.7 dB.

A descriptor for noise effects on wildlife has not been universally adopted, but some research indicates SEL is the most useful predictor of responses. Characteristic of the bulk of research to date has been lack of systematic documentation of the source noise event. Many studies report “sound levels” without specifying the frequency spectrum or duration. A notable exception is a study sponsored by U.S. Air Force that identifies SEL as the best descriptor for response of domestic turkey poults to low-altitude aircraft overflights (Bradley et al. 1990). This study identified a threshold of response for disturbance of domestic turkeys (“100 percent rate of crowding”) as SEL 100 dB. None of the predicted sound levels for the different flight phases exceed SEL 92.1 dB.

The following paragraphs describe the anticipated effects of the Proposed Action on the ESA-listed, proposed-listed, and candidate species, as shown above in **Table 1**.

Tricolored bat and Florida bonneted bat

The tricolored bat (*Perimyotis subflavus*) is a proposed candidate for listing under the jurisdiction of USFWS. As of September 14, 2022, USFWS proposed to list the tricolored bat as an endangered species under the ESA. Designated critical habitat (CH) is not proposed for the tricolored bat at this time.

Tricolored bats are found throughout Florida; however, they are more common in the northern half of the state.

The Florida bonneted bat (*Eumops floridanus*) is a federally listed endangered species which has the potential to occur in the Orlando, West Palm Beach, and Miami Action Areas. No designated Critical Habitat is currently proposed. It is endemic to the state of Florida and is found in the areas from Orlando south to Miami, primarily along the coast. The Florida bonneted bat is Florida’s largest bat species and roosts in trees, rock outcrops, bat houses, chimneys, and under barrel roof tiles. They typically leave their roosts shortly after sunset and fly long distances at high altitudes to forage on insects.

Research suggests that drones have “minimal impact on bat and owl behavior” (Fu, Y., M. Kinniry, and L.N. Kloepper. 2018). and that bats do not appear to be disturbed by drones (August, T. and T. Moore. 2008). Bats at roost or in flight could experience drone noise during the en route and delivery flight phases. When foraging at or near the tree line at the time a drone flies by, bats would experience the greatest sound levels. Roosting bats or bats foraging near the ground at the time a drone flies by would experience lower sound levels. Given the estimated sound levels of the drone, the drone’s linear flight profile to and from nests and delivery locations, the short period of time the drone would be in any particular location, and the low probability of encountering an individual bat in the action area, drone noise is not expected to adversely affect the above referenced bat species. Any increase in ambient sound levels caused by the drone’s flight would only last a few seconds during the en route phase and approximately 49 seconds during a delivery.

There is no Dkey established for the Florida bonneted bat. The USFWS DKey for the tricolored bat resulted in a *No Effect* determination. However, since there is an incidental chance of in-flight encounters with bats, the FAA determination for the tricolored bat and Florida bonneted bat is ***may affect, not likely to adversely affect***. This determination is based on:

- 1) operations occurring mostly in an urban environment,
- 2) the altitude at which the drone flies in the en route phase (180 to 377 feet AGL),
- 3) the expected low sound levels experienced by a bat,

- 4) the short duration of any increases in ambient sound levels,
- 5) the low probability of a listed bat species occurring in the action area, and
- 6) the low likelihood of the drone striking a bat.

Any effects would be discountable (extremely unlikely to occur) or insignificant (not able to be meaningfully measured, detected, or evaluated).

Crested Caracara

Audubon's Crested Caracara (*Caracara plancus audubonii*) can be found in various habitats including improved pastures, dry prairies, freshwater marshes, mixed upland hardwoods, shrub and brushland, grassland, and urban areas. Audubon's Crested Caracara is found throughout south-central Florida. The Consultation Area for the species is located along the eastern edge of the Tampa Action Area and the southern edge of the Orlando Action Area. In the instance where involvement with the species were to occur, the Crested Caracara is a large raptor, that would be able to hear and detect a drone approaching and move away in time to avoid a collision. Therefore, an appropriate effect determination is ***may affect, not likely to adversely affect*** the Crested Caracara.

Eastern Black Rail

The Eastern Black Rail (*Laterallus jamaicensis ssp. jamaicensis*) is an elusive bird which is reliant on dense intact freshwater or brackish wetlands. Eastern Black Rails fly very little and mostly remain on the ground and run quickly through dense vegetation. Due to the behavior and mobilization of the species and their classification as partially migratory (however in the south regions of the country tend to have a smaller range and can sometimes be residents) and the nature of the Proposed Action, the project determination is ***may affect, not likely to adversely affect*** the species.

Everglade Snail Kite

The Everglade Snail Kite (*Rostrhamus sociabilis plumbeus*) is a federally endangered species. Suitable habitat for the species is present within each of the Action Areas. Critical Habitat was established for the species in the Miami Action Area (PADDC Action Areas SFL3 and SFL9). However, no impacts to Critical Habitat areas are proposed. In addition, the Everglade Snail Kite is a large bird that would be able to hear and detect a drone approaching and move away in time to avoid a collision. Therefore, an appropriate effect determination is ***may affect, not likely to adversely affect*** for the Proposed Action on the species.

Florida Scrub Jay

The Florida Scrub-Jay (*Aphelocoma coerulescens*) is the only species of bird that is endemic to Florida and has adapted to a very specific habitat known as Florida scrub. Optimal Scrub-Jay habitat occurs on scrub ridges with well drained to excessively well drained soils that have scrubby oaks three to nine feet in height interspersed with 10 to 50 percent unvegetated sandy openings, and a sand pine (*Pinus clausa*) canopy of less than 20 percent. The species has been documented in suboptimal habitats such as those

fragmented by residential developments. The Tampa, Orlando, and West Palm Beach Action Areas are located within the Florida Scrub-Jay Consultation Area; however, the footprint does not contain the required specific active habitat. In addition, the Florida Scrub-Jay is very territorial, and flies close to the ground. Therefore, the Proposed Action will have ***no effect*** on the species.

Rufa Red Knot

The Rufa Red Knot (*Calidris canutus*) migrates exceptionally long distances, from High Arctic nesting areas to wintering spots in southern South America, Africa, and Australia. Suitable habitat for the species during migration occurs within the Tampa, West Palm Beach, and Miami Action Areas. This habitat is limited to the coastlines, where the drones will rarely spend time flying over. In the rare instance where involvement with the species were to occur, the Rufa Red Knot is a medium sized bird, that would be able to hear and detect a drone approaching and move away in time to avoid a collision. Therefore, an appropriate effect determination is ***may affect, not likely to adversely affect*** of the Proposed Action on the species.

Whooping Crane

IPaC reported the Whooping Crane (*Grus americana*) as having the potential to occur within the Tampa and Orlando Action Areas. The Whooping Crane breeds, migrates, winters, and forages in a variety of habitats, including coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh and sand or tidal flats, upland swales, wet meadows and rivers, pastures and agricultural fields. Suitable habitat for the species is present within the Southern Action Area; however, the Whooping Crane is a large bird that would be able to hear and detect a drone approaching and move away in time to avoid a collision. The FAA has determined that an appropriate effect determination is ***may affect, not likely to adversely affect*** the Whooping Crane. Any effects would be discountable (extremely unlikely to occur) or insignificant (not able to be meaningfully measured, detected, or evaluated).

Wood Stork

The Wood Stork (*Mycteria americana*) nests colonially in a variety of inundated wetlands including cypress swamps, mixed hardwood swamps, sloughs, and mangroves and utilizes freshwater marshes, flooded pastures, and roadside ditches for feeding. For the Tampa and Orlando Action Areas, the USFWS has defined the Core Foraging Habitat (CFA) for a wood stork colony as the area within a 15-mile radius from the colony location. For the West Palm Beach and Miami Action Areas, the USFWS has defined the Core Foraging Habitat (CFA) for a wood stork colony as the area within a 18.6-mile radius from the colony location. Suitable habitat for the species is present within each of the Action Areas. However, no disturbance to suitable habitat is proposed. In addition, the wood stork is a large bird that would be able to hear and detect a drone approaching and move away in time to avoid a collision in flight. Therefore, an appropriate effect determination is ***may affect, not likely to adversely affect*** for the Proposed Action on the species.

Red Cockaded Woodpecker

The IPaC reported the Red-Cockaded Woodpecker (*Dryobates borealis*) (RCW) as having the potential to occur within the Orlando and West Palm Beach Action Areas. RCWs inhabit 90-100 year-old longleaf,

slash and loblolly pine habitats and nest in live pine trees as opposed to the typical dead tree preference of other woodpeckers. They are non-migratory and maintain territories throughout the year and generally forage over a small area close to nests. Given that suitable habitat is likely not present with the Orlando and West Palm Beach Action Areas, the proposed Action will have *no effect* on the RCW.

Black-Capped Petrel

The Black-Capped Petrel (*Pterodroma hasitata*), a federally endangered species under the ESA, is a pelagic seabird that is widely distributed and travels long distances to foraging areas in the western Atlantic and southern Caribbean basins and the central and northeastern Gulf of Mexico. The IPaC reported the Black-Capped Petrel as having potential to occur within the West Palm Beach Action Area. Due to the species being a pelagic seabird, drones are limited to the coastlines and would not operate over the ocean. Therefore, the proposed Action will have *no effect* on the Black-Capped Petrel.

Piping Plover

The IPaC analysis reported the Piping Plover (*Charadrius melodus*) as having the potential to occur in the West Palm Beach Action Area. The Piping Plover is a small shorebird that inhabits sandy beaches, sand flats, and mudflats along coastal areas. The species does not breed in Florida but spend a large portion of the year “wintering”. Drone activity is limited on the coastlines and would typically not operate over beaches or mudflats. Therefore, an appropriate effect determination is *may affect, not likely to adversely affect* for the Proposed Action on the species.

Monarch butterfly

The monarch butterfly (*Danaus plexippus*), a candidate for federal listing, has the potential to occur in the action areas. Information regarding drone impacts on insects is limited and there have been no widespread negative impacts identified in scientific literature. Some research shows that monarch butterflies are not commonly observed at higher altitudes (generally between 1 and 300 feet) and would not be expected to frequently occur at the altitudes where Prime Air is proposing to operate (Altitudes Attained by migrating Monarch Butterflies, 2024). Therefore, it is anticipated that the Proposed Action will have *no effect* on the monarch butterfly.

Bald Eagle

In addition to the above listed species identified within the IPaC review, the potential for impacts to Bald Eagles was evaluated. The location and activity of Bald Eagle nest sites throughout Florida are closely monitored by the Audubon Society and FWC. A desktop review of Audubon EagleWatch mapping indicates that there are 88 Bald Eagle nests documented either within or the protective zones are within the footprint of the Action Areas. Bald Eagle nest locations are provided as **Attachment E**. The National Bald Eagle Management Guidelines state aircraft should stay at least 1,000 feet from the nests during the breeding season unless the aircraft is operated by a trained wildlife biologist. Prime Air will establish an avoidance area such that there is 1,000 feet vertical and horizontal separation distance between the vehicle’s flight path and the nest during the breeding season.

Conclusion

Based on the analysis above, the FAA has determined the following:

- There will be no direct impacts or alterations to critical habitat located within the action areas for any species listed in Table 1 above,
- The action areas are mostly urbanized, with minimal suitable habitat for the ESA-listed species identified in them.
- Any increase in ambient sound levels would be short in duration.
- Drone dwell/hover time during takeoff and delivery would be less than one minute.
- Drones would generally operate at an altitude between 200 and 345 feet AGL.
- Drone activity would be highly concentrated over developed areas, where there is consumer demand for drone delivery service.
- Based on all of these factors, the probability of a drone/wildlife interaction would be low.

It is important to note that Prime Air has been performing similar drone delivery operations at its College Station, TX facility, for more than two years. A recent assessment of drone maintenance and telemetry records indicates zero instances of drone/wildlife collisions over the course of more than 8,000 delivery operations.

Accordingly, the FAA has determined the Proposed Action is ***not likely to adversely affect*** the tricolored bat (*Perimyotis subflavus*), Florida bonneted bat (*Eumops floridanus*), Crested Caracara (*Caracara plancus audobonii*), Eastern Black Rail (*Laterallus jamaicensis spp. jamaicensis*), Everglade Snail Kite (*Rostrhamus sociabilis plumbeus*), Rufa Red Knot (*Caliris canutus rufa*), Whooping Crane (*Grus americana*), Wood Stork (*Mycteria americana*), and Piping Plover (*Charadrius melodus*). Additionally, the Proposed Action would have ***no effect*** on the Florida Scrub Jay (*Aphelocoma coerulescens*), Red-Cockaded Woodpecker (*Dryobates borealis*), Black-Capped Petrel (*Pterodroma hasitata*), and monarch butterfly (*Danaus plexippus*).

Because the delivery of commercial goods by drones is an emerging technology and its potential effects on wildlife are still not well understood, Prime Air is proposing to implement a “Biological Monitoring Program” for this project, which would include:

- Record and analyze daily maintenance and telemetry records to document any potential drone/wildlife interactions,
- If applicable, report wildlife movement / activity in and around airport property that may be obtained from operations or wildlife management staff from nearby airports.
- If applicable, recover and analyze potential biological materials (e.g., snarge, feathers, etc.), generally in accordance with existing protocols used in cases of aircraft bird strikes at airports, and
- Report findings to the USFWS on an annual basis.

The proposed Biological Monitoring Program would serve as a useful tool for Prime Air, the FAA, and USFWS to better understand the possible interactions between drones and wildlife.

The FAA appreciates your review of the proposed project and requests your concurrence with (1) our “may affect” determination as stated above and (2) implementation of the proposed Biological Monitoring Program within 30 days of receiving this letter. If you have any questions, please contact Christopher Hurst via email at 9-faa-drone-environmental@faa.gov.

Sincerely,

Joseph Hemler
Manager, General Aviation and Commercial Branch (AFS-752)
Emerging Technologies Division
Office of Safety Standards, Flight Standards Service

Attachments:

Attachment A – Proposed MK30 Operating Areas

Attachment B – MK 30 Drone

Attachment C – Technical Noise Report

Attachment D – Official Species Lists and Dkeys

Attachment E – Potential Bald Eagle Nests

References

Altitudes attained by migrating monarch butterflies, *Danaus p. plexippus* (Lepidoptera: Danaidae), as reported by glider pilots. Available: https://doi.org/10.1139/z81-084_. Accessed July 2025.

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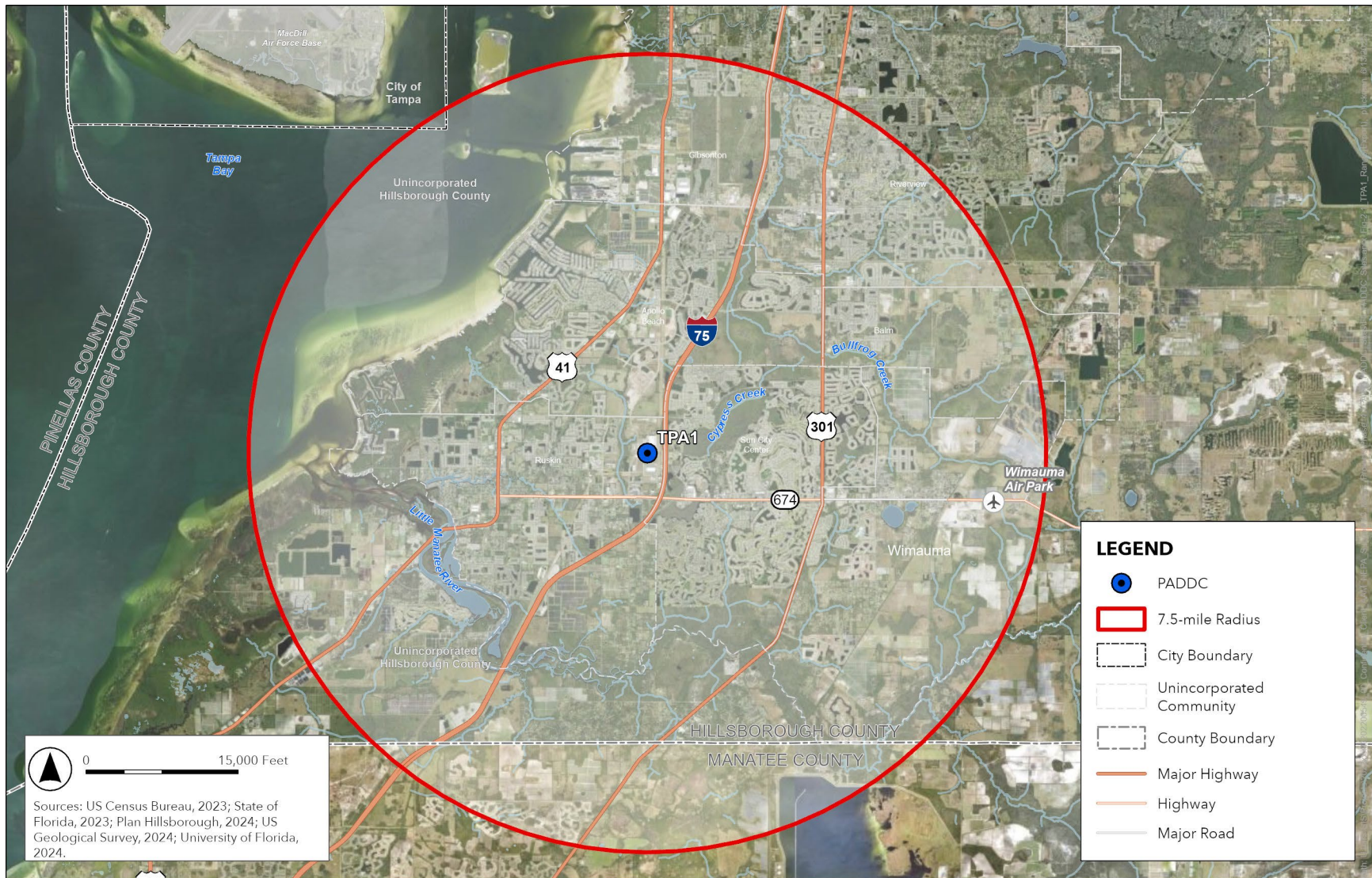
Red-Cockaded Woodpecker. https://www.fnai.org/PDFs/FieldGuides/Dryobates_borealis.pdf. Accessed June 2025.

U.S Fish and Wildlife Service – Eastern Black Rail. <https://www.fws.gov/species/eastern-black-rail-laterallus-jamaicensis-jamaicensis>. Accessed April 2025.

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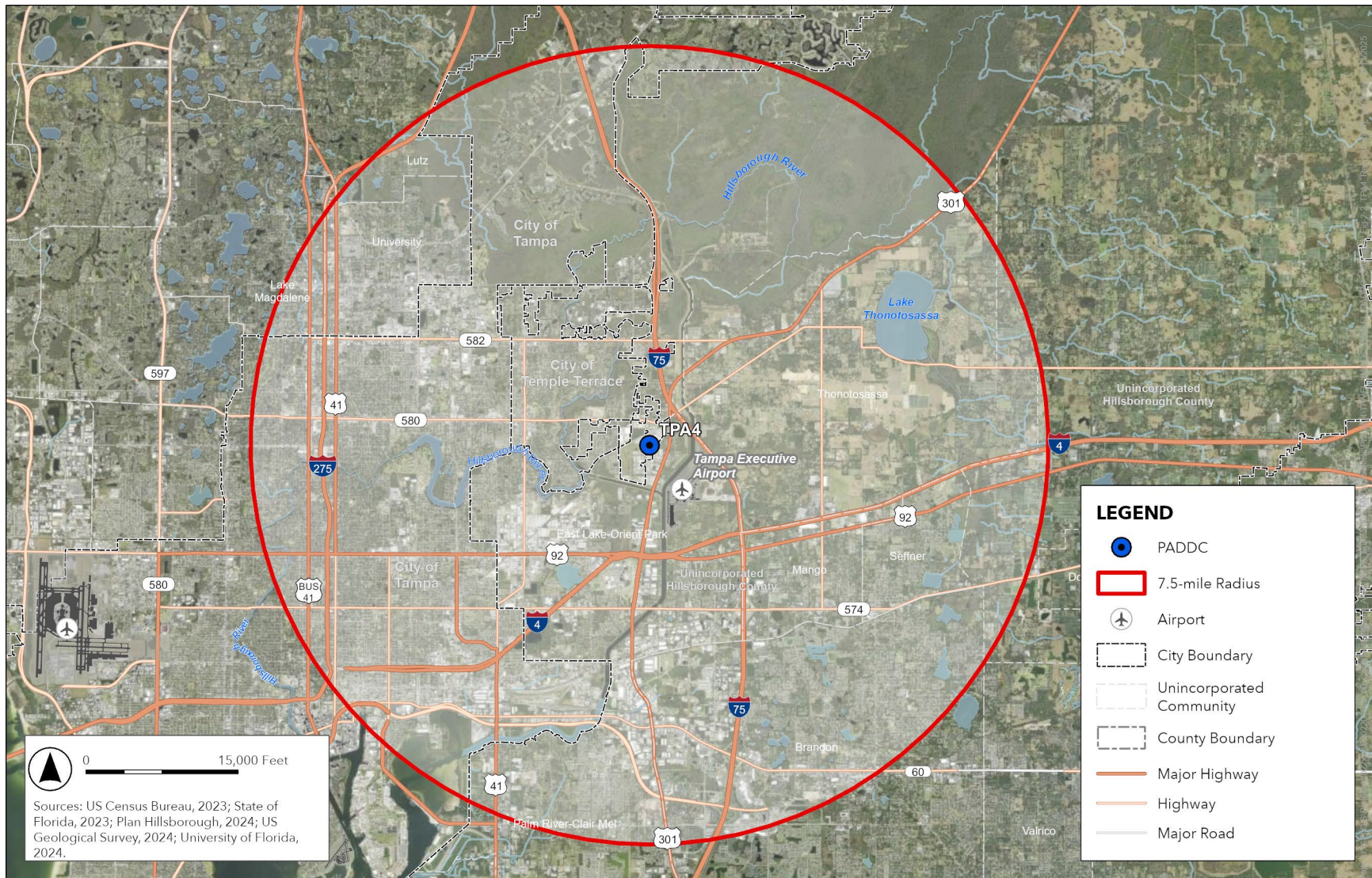
Attachment A

Proposed MK30 Operating Areas



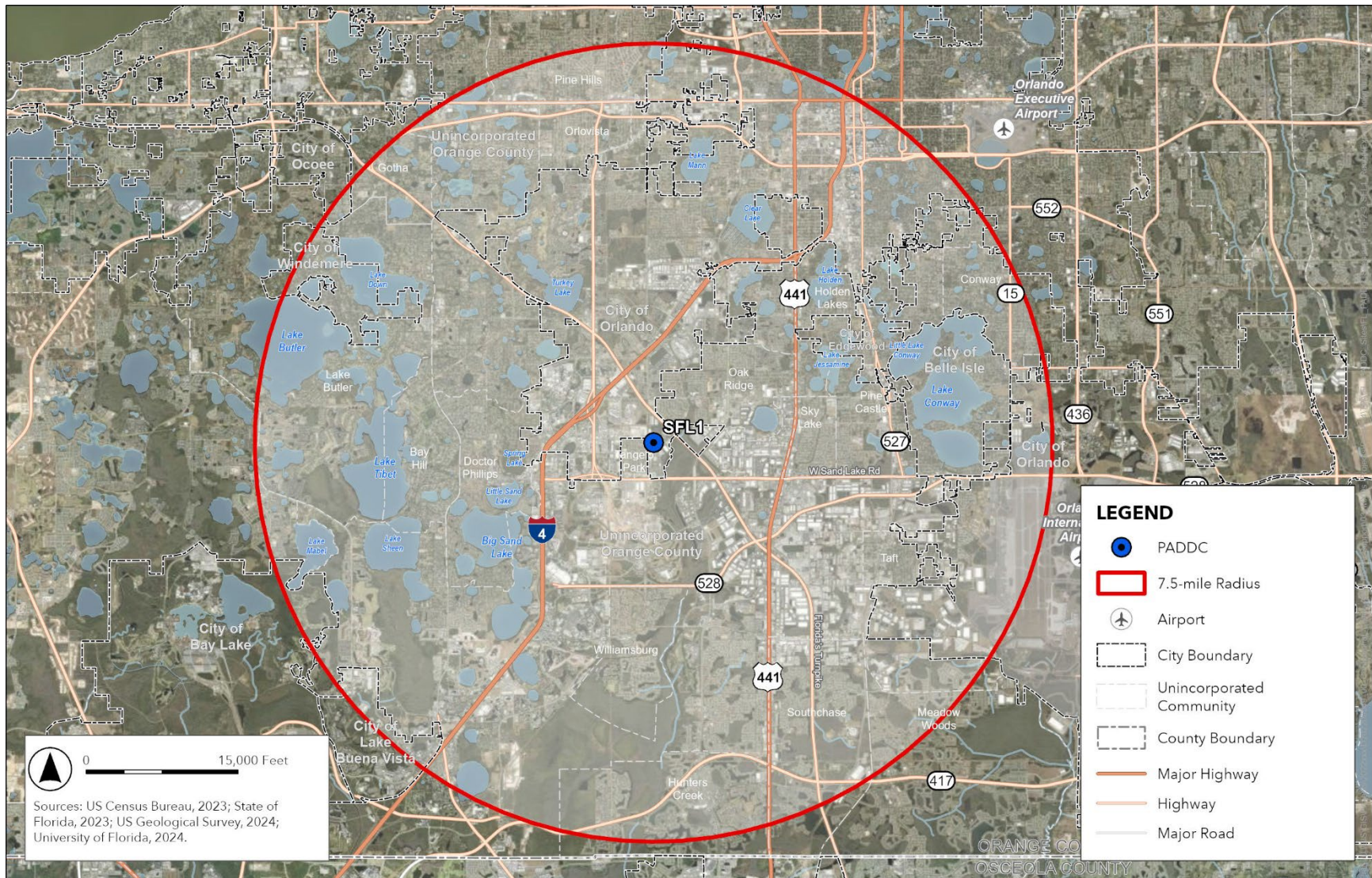
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; Plan Hillsborough, 2024; US Geological Survey, 2024; University of Florida, 2024.

TPA1 Drone Operation Action Area



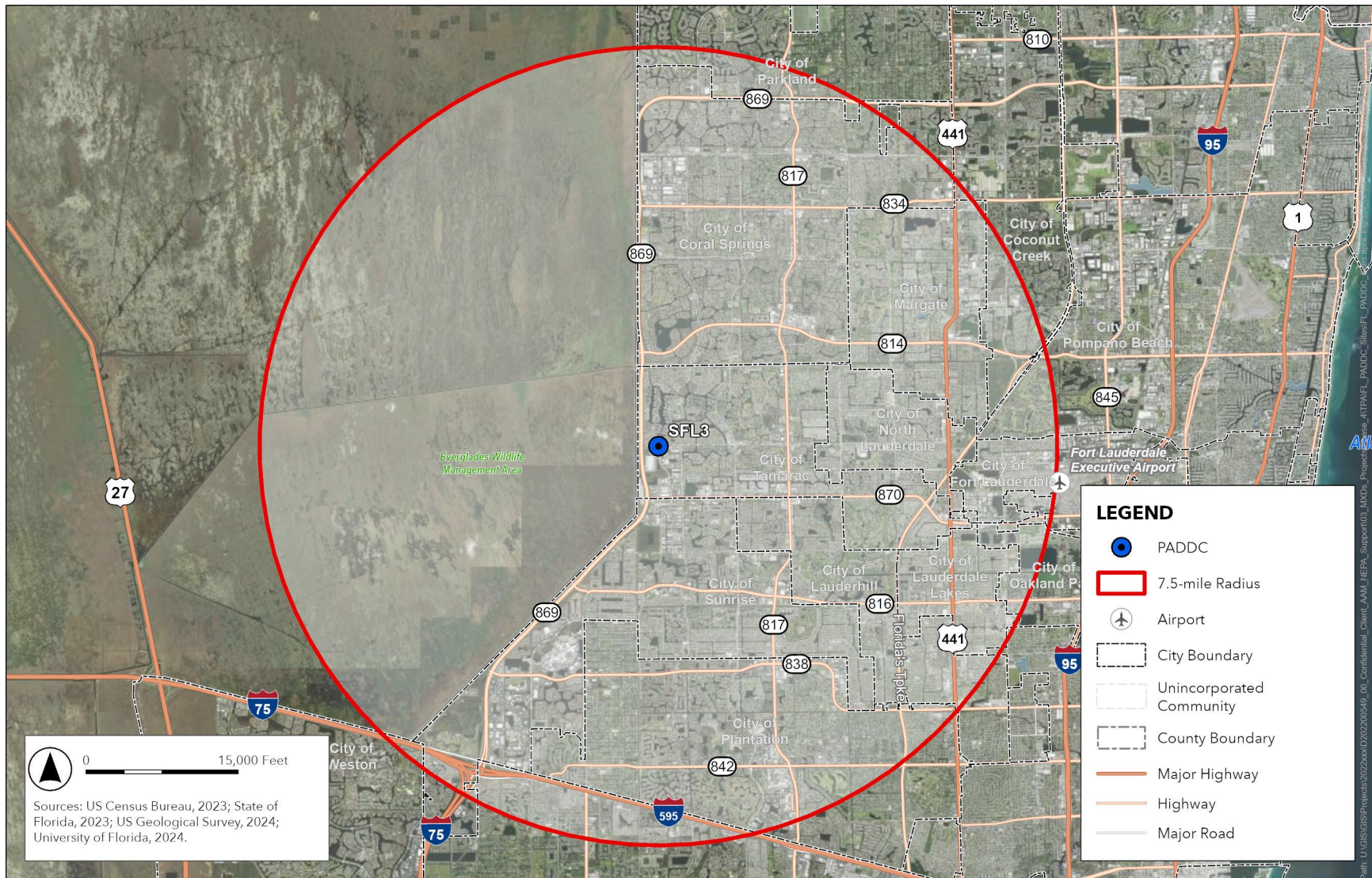
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; Plan Hillsborough, 2024; US Geological Survey, 2024; University of Florida, 2024.

TPA4 Drone Operation Action Area



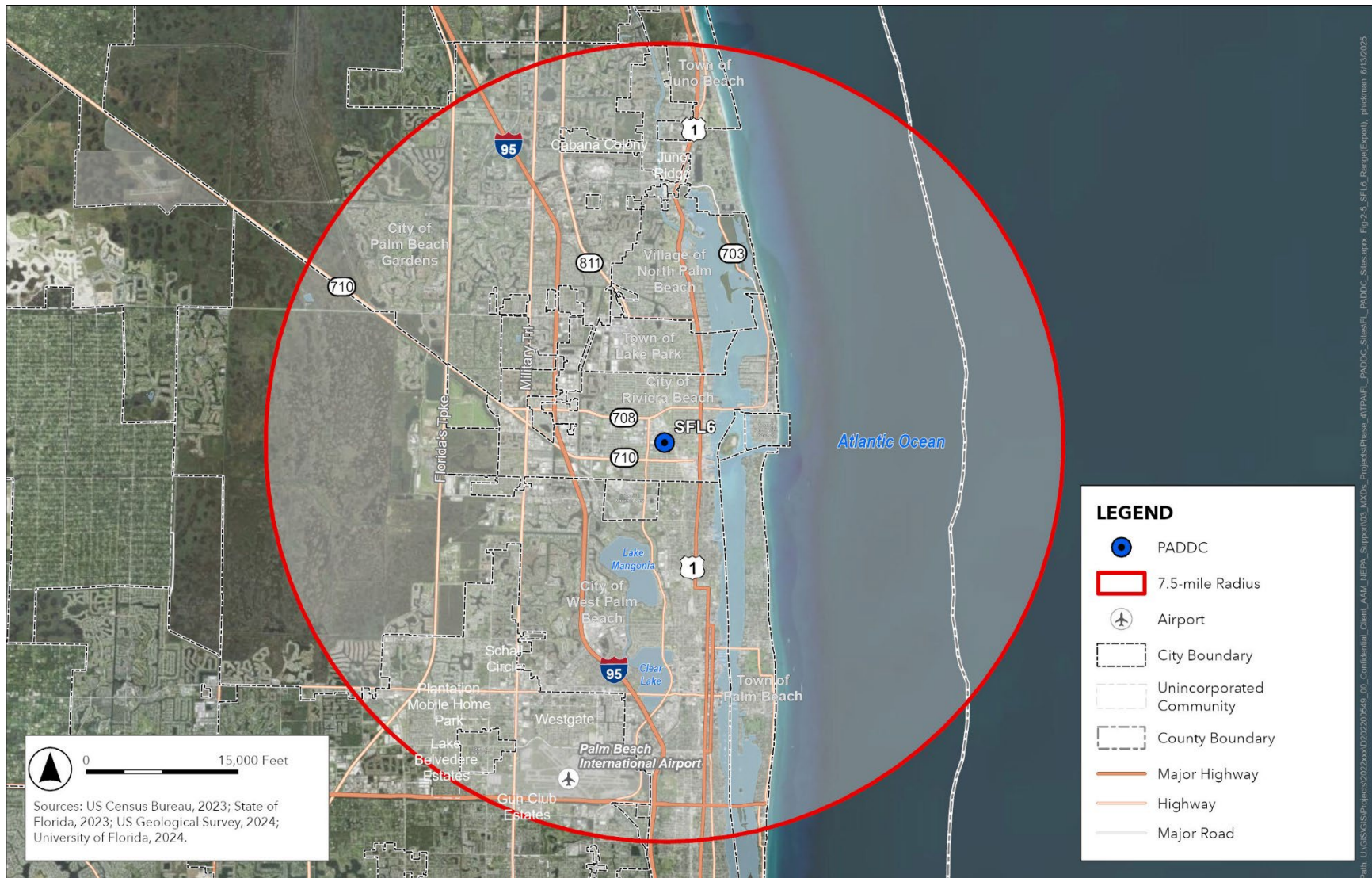
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

SFL1 Drone Operation Action Area



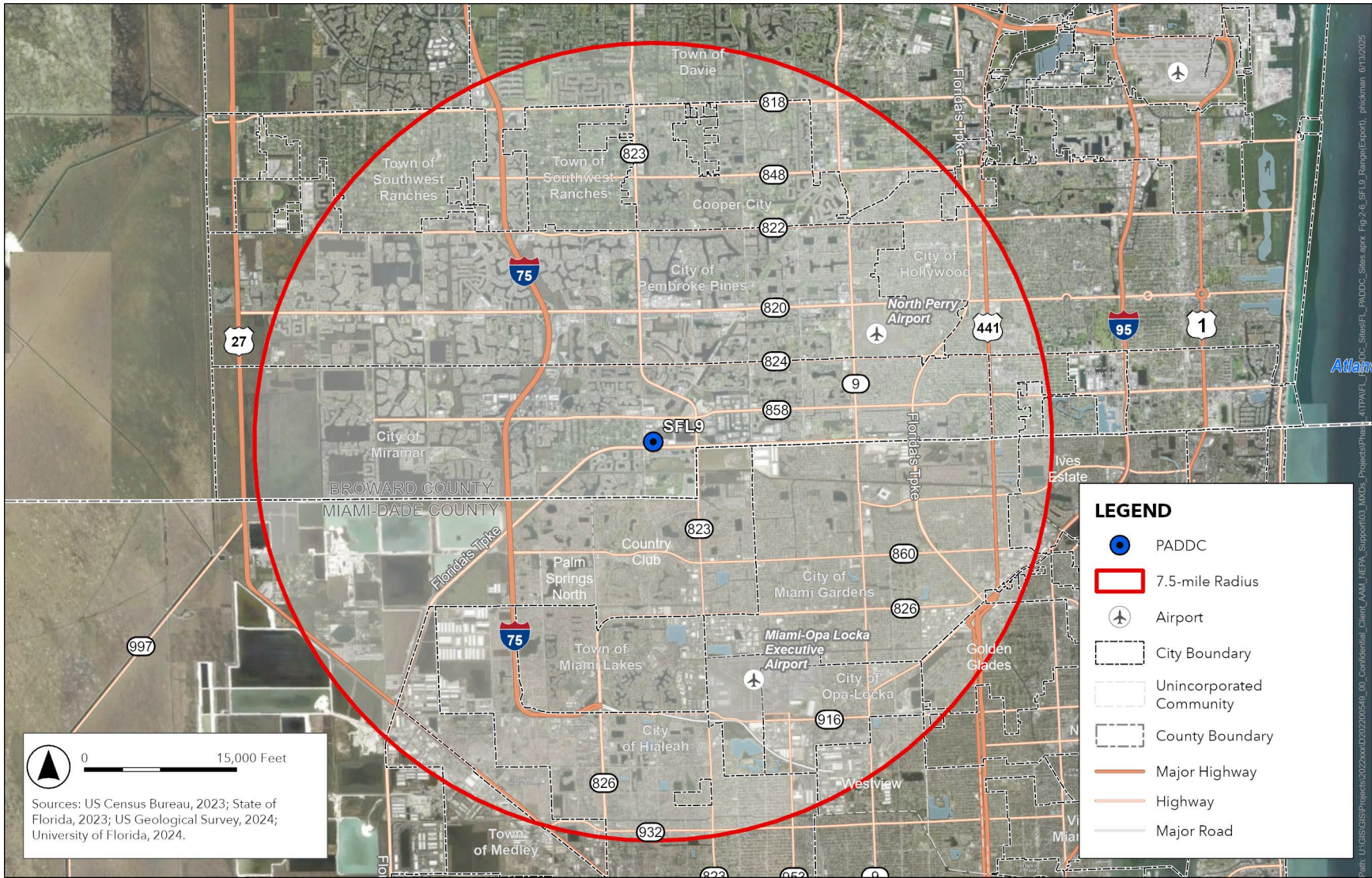
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

SFL3 Drone Operation Action Area



SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023;
 US Geological Survey, 2024; University of Florida, 2024.

SFL6 Drone Operation Action Area



SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

SFL9 Drone Operation Action Area

Attachment B
MK30 Drone

MK30 Drone



Attachment C
Technical Noise Report

The Technical Noise Report included in the original agency consultation has been omitted from this appendix; it can be found in Appendix E.

Attachment D
Official Species List and Dkeys



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
Phone: (352) 448-9151 Fax: (772) 562-4288
Email Address: fw4flesregs@fws.gov

In Reply Refer To:

07/14/2025 19:58:52 UTC

Project Code: 2025-0110021

Project Name: SFL1 Drone Project - Various Florida Delivery Areas

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Please include your Project Code, listed at the top of this letter, in all subsequent correspondence regarding this project. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of

this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Florida Ecological Services Field Office

777 37th St

Suite D-101

Vero Beach, FL 32960-3559

(352) 448-9151

PROJECT SUMMARY

Project Code: 2025-0110021
Project Name: SFL1 Drone Project - Various Florida Delivery Areas
Project Type: Drones - Use/Operation of Unmanned Aerial Systems
Project Description: Drone delivery project.
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@28.4599449,-81.44027775,14z>



Counties: Orange County, Florida

ENDANGERED SPECIES ACT SPECIES

There is a total of 20 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Crested Caracara (audubon's) [fl Dps] <i>Caracara plancus audubonii</i> Population: FL DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8250	Threatened
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Everglade Snail Kite <i>Rostrhamus sociabilis plumbeus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7713	Endangered
Florida Scrub-jay <i>Aphelocoma coerulescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6174	Threatened
Red-cockaded Woodpecker <i>Dryobates borealis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Threatened
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477 General project design guidelines: https://ipac.ecosphere.fws.gov/project/7FHJ7RU4XRAOFBILHZG3I7GOI4/documents/generated/6954.pdf	Threatened

REPTILES

NAME	STATUS
Eastern Indigo Snake <i>Drymarchon couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened

NAME	STATUS
Sand Skink <i>Neoseps reynoldsi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4094	Threatened
Short-tailed Snake <i>Stilosoma extenuatum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9266	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Beautiful Pawpaw <i>Deeringothamnus pulchellus</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4069	Endangered
Britton's Beargrass <i>Nolina brittoniana</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4460	Endangered
Florida Bonamia <i>Bonamia grandiflora</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2230	Threatened
Papery Whitlow-wort <i>Paronychia chartacea</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1465	Threatened
Pigeon Wings <i>Clitoria fragrans</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/991	Threatened
Sandlace <i>Polygonella myriophylla</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5745	Endangered
Scrub Lupine <i>Lupinus aridorum</i> Population:	Endangered

NAME	STATUS
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/736	
Scrub Plum <i>Prunus geniculata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2238	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Sarah McAbee
Address: 5401 South Kirkman Road, Suite 475
City: Orlando
State: FL
Zip: 32819
Email: smcabee@esassoc.com
Phone: 4076006723

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
Phone: (352) 448-9151 Fax: (772) 562-4288
Email Address: fw4flesregs@fws.gov

In Reply Refer To:

07/14/2025 19:56:25 UTC

Project code: 2025-0110021

Project Name: SFL1 Drone Project - Various Florida Delivery Areas

Federal Nexus: yes

Federal Action Agency (if applicable): Federal Aviation Administration

Subject: Record of project representative's no effect determination for 'SFL1 Drone Project - Various Florida Delivery Areas'

Dear Sarah McAbee:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on July 14, 2025, for 'SFL1 Drone Project - Various Florida Delivery Areas' (here forward, Project). This project has been assigned Project Code 2025-0110021 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey)**, invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat and/or Tricolored Bat

Based upon your IPaC submission and a standing analysis, your project has reached the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are 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. 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. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Beautiful Pawpaw *Deeringothamnus pulchellus* Endangered
- Britton's Beargrass *Nolina brittoniana* Endangered
- Crested Caracara (audubon's) [fl Dps] *Caracara plancus audubonii* Threatened
- Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Threatened
- Eastern Indigo Snake *Drymarchon couperi* Threatened
- Everglade Snail Kite *Rostrhamus sociabilis plumbeus* Endangered
- Florida Bonamia *Bonamia grandiflora* Threatened
- Florida Scrub-jay *Aphelocoma coerulescens* Threatened
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Papery Whitlow-wort *Paronychia chartacea* Threatened

- Pigeon Wings *Clitoria fragrans* Threatened
- Red-cockaded Woodpecker *Dryobates borealis* Threatened
- Sand Skink *Neoseps reynoldsi* Threatened
- Sandlace *Polygonella myriophylla* Endangered
- Scrub Lupine *Lupinus aridorum* Endangered
- Scrub Plum *Prunus geniculata* Endangered
- Short-tailed Snake *Stilosoma extenuatum* Proposed Threatened
- Whooping Crane *Grus americana* Experimental Population, Non-Essential
- Wood Stork *Mycteria americana* Threatened

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the species covered by this key. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Florida Ecological Services Field Office and reference Project Code 2025-0110021 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

SFL1 Drone Project - Various Florida Delivery Areas

2. Description

The following description was provided for the project 'SFL1 Drone Project - Various Florida Delivery Areas':

Drone delivery project.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@28.4599449,-81.44027775,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the species covered by this determination key. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

Yes

3. Your project overlaps with Zone 2 of the area where northern long-eared bats and tricolored bats may be present and roosting in trees year-round.

Do you understand that your project may impact bats at any time during the year?

Yes

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

10. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

11. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

12. Will the action cause effects to a bridge?

Note: Covered bridges should be considered as bridges in this question.

No

13. Will the action result in effects to a culvert or tunnel at any time of year?

No

14. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

15. Does the action include the intentional exclusion of bats from a building or structure?

Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

16. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

No

17. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

Note: For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

22. Will the action include drilling or blasting?

No

23. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

No

24. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

25. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

26. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

27. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

No

28. Will the proposed action result in the use of prescribed fire?

Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

29. Does the action area intersect the tricolored bat species list area?

Automatically answered

Yes

30. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known tricolored bat hibernacula? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

31. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

32. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

Has a presence/probable absence survey for the tricolored bat following the Service's [Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area? If unsure, answer "No."

No

33. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

Is suitable tricolored bat habitat present within 1000 feet of project activities? Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer "Yes." Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

34. Do you have any documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Sarah McAbee
Address: 5401 South Kirkman Road, Suite 475
City: Orlando
State: FL
Zip: 32819
Email: smcabee@esassoc.com
Phone: 4076006723

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
Phone: (352) 448-9151 Fax: (772) 562-4288
Email Address: fw4flesregs@fws.gov

In Reply Refer To:

07/14/2025 18:55:30 UTC

Project Code: 2025-0110029

Project Name: SFL6 Drone Project_WPB Drone Sites - Various Florida Delivery Areas

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Please include your Project Code, listed at the top of this letter, in all subsequent correspondence regarding this project. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of

this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Marine Mammals
- Coastal Barriers

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Florida Ecological Services Field Office

777 37th St

Suite D-101

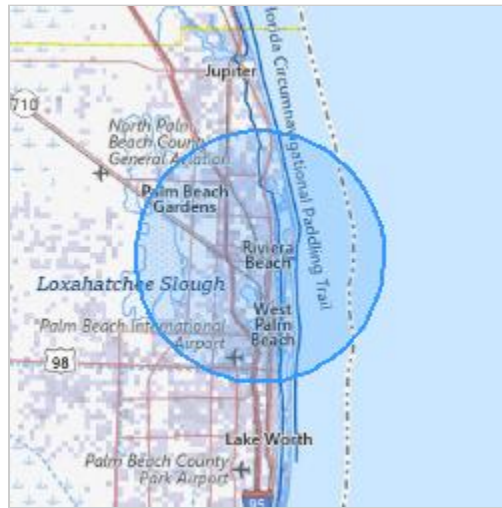
Vero Beach, FL 32960-3559

(352) 448-9151

PROJECT SUMMARY

Project Code: 2025-0110029
Project Name: SFL6 Drone Project_WPB Drone Sites - Various Florida Delivery Areas
Project Type: Drones - Use/Operation of Unmanned Aerial Systems
Project Description: Drone delivery project.
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@26.7741154,-80.065833325,14z>



Counties: Palm Beach County, Florida

ENDANGERED SPECIES ACT SPECIES

There is a total of 28 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Florida Bonneted Bat <i>Eumops floridanus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8630	Endangered
Florida Panther <i>Puma (=Felis) concolor coryi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1763 General project design guidelines: https://ipac.ecosphere.fws.gov/project/7E5WWZOU7RGVHPJUHALJROAP54/documents/generated/7123.pdf	Endangered
Puma (=mountain Lion) <i>Puma (=Felis) concolor (all subsp. except coryi)</i> Population: FL No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6049	Similarity of Appearance (Threatened)
Southeastern Beach Mouse <i>Peromyscus polionotus niveiventris</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3951	Threatened
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered
West Indian Manatee <i>Trichechus manatus</i> There is final critical habitat for this species. Your location overlaps the critical habitat. <i>This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.</i> Species profile: https://ecos.fws.gov/ecp/species/4469 General project design guidelines: https://ipac.ecosphere.fws.gov/project/7E5WWZOU7RGVHPJUHALJROAP54/documents/generated/7281.pdf	Threatened

BIRDS

NAME	STATUS
Black-capped Petrel <i>Pterodroma hasitata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4748	Endangered
Crested Caracara (audubon's) [fl Dps] <i>Caracara plancus audubonii</i> Population: FL DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8250	Threatened
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened

NAME	STATUS
Everglade Snail Kite <i>Rostrhamus sociabilis plumbeus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7713	Endangered
Florida Scrub-jay <i>Aphelocoma coerulescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6174	Threatened
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red-cockaded Woodpecker <i>Dryobates borealis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Threatened
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477 General project design guidelines: https://ipac.ecosphere.fws.gov/project/7E5WWZOU7RGVHPJUHALJROAP54/documents/generated/6954.pdf	Threatened

REPTILES

NAME	STATUS
American Alligator <i>Alligator mississippiensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/776	Similarity of Appearance (Threatened)
American Crocodile <i>Crocodylus acutus</i> Population: U.S.A. (FL) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6604	Threatened
Eastern Indigo Snake <i>Drymarchon couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened
Green Sea Turtle <i>Chelonia mydas</i> Population: North Atlantic DPS There is proposed critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Hawksbill Sea Turtle <i>Eretmochelys imbricata</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered

NAME	STATUS
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle <i>Caretta caretta</i> Population: Northwest Atlantic Ocean DPS There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Beach Jacquemontia <i>Jacquemontia reclinata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1277	Endangered
Florida Prairie-clover <i>Dalea carthagenensis floridana</i> Population: There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/2300	Endangered
Four-petal Pawpaw <i>Asimina tetramera</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3461	Endangered
Tiny Polygala <i>Polygala smallii</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/996	Endangered

LICHENS

NAME	STATUS
Florida Perforate Cladonia <i>Cladonia perforata</i> Population: No critical habitat has been designated for this species.	Endangered

NAME	STATUS
Species profile: https://ecos.fws.gov/ecp/species/7516	

CRITICAL HABITATS

There are 2 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Green Sea Turtle <i>Chelonia mydas</i> https://ecos.fws.gov/ecp/species/6199#crithab	Proposed
Loggerhead Sea Turtle <i>Caretta caretta</i> https://ecos.fws.gov/ecp/species/1110#crithab	Final

You should contact the local field office to determine whether critical habitat for the following species should be considered:

NAME	STATUS
West Indian Manatee <i>Trichechus manatus</i> https://ecos.fws.gov/ecp/species/4469#crithab	Final

COASTAL BARRIERS

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

OTHERWISE PROTECTED AREA (OPA)

*OPAs are denoted with a "P" at the end of the unit number. The only prohibition within OPAs is on Federal flood insurance. **CBRA consultation is not required for projects within OPAs.** However, agencies providing disaster assistance that is contingent upon a requirement to purchase flood insurance after the fact are advised to disclose the OPA designation and information on the restrictions on Federal flood insurance to the recipient prior to the commitments of funds.*

UNIT	NAME	TYPE	SYSTEM UNIT ESTABLISHMENT DATE	FLOOD INSURANCE PROHIBITION DATE
FL-18P	MacArthur Beach	OPA	N/A	11/16/1991
FL-18P	MacArthur Beach	OPA	N/A	12/21/2018

MARINE MAMMALS

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries³ [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

-
1. The [Endangered Species Act](#) (ESA) of 1973.
 2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
 3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME

West Indian Manatee *Trichechus manatus*

Species profile: <https://ecos.fws.gov/ecp/species/4469>

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Sarah McAbee
Address: 5401 South Kirkman Road, Suite 475
City: Orlando
State: FL
Zip: 32819
Email: smcabee@esassoc.com
Phone: 4076006723

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
Phone: (352) 448-9151 Fax: (772) 562-4288
Email Address: fw4flesregs@fws.gov

In Reply Refer To:

07/14/2025 18:51:35 UTC

Project code: 2025-0110029

Project Name: SFL6 Drone Project_WPB Drone Sites - Various Florida Delivery Areas

Federal Nexus: yes

Federal Action Agency (if applicable): Federal Aviation Administration

Subject: Record of project representative's no effect determination for 'SFL6 Drone Project_WPB Drone Sites - Various Florida Delivery Areas'

Dear Sarah McAbee:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on July 14, 2025, for 'SFL6 Drone Project_WPB Drone Sites - Various Florida Delivery Areas' (here forward, Project). This project has been assigned Project Code 2025-0110029 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey)**, invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat and/or Tricolored Bat

Based upon your IPaC submission and a standing analysis, your project has reached the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are 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. 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. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Alligator *Alligator mississippiensis* Similarity of Appearance (Threatened)
- American Crocodile *Crocodylus acutus* Threatened
- Beach Jacquemontia *Jacquemontia reclinata* Endangered
- Black-capped Petrel *Pterodroma hasitata* Endangered
- Crested Caracara (audubon's) [fl Dps] *Caracara plancus audubonii* Threatened
- Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Threatened
- Eastern Indigo Snake *Drymarchon couperi* Threatened
- Everglade Snail Kite *Rostrhamus sociabilis plumbeus* Endangered
- Florida Bonneted Bat *Eumops floridanus* Endangered
- Florida Panther *Puma (=Felis) concolor coryi* Endangered

- Florida Perforate Cladonia *Cladonia perforata* Endangered
- Florida Prairie-clover *Dalea carthagenensis floridana* Endangered
- Florida Scrub-jay *Aphelocoma coerulescens* Threatened
- Four-petal Pawpaw *Asimina tetramera* Endangered
- Green Sea Turtle *Chelonia mydas* Threatened
- Hawksbill Sea Turtle *Eretmochelys imbricata* Endangered
- Kemp's Ridley Sea Turtle *Lepidochelys kempii* Endangered
- Leatherback Sea Turtle *Dermochelys coriacea* Endangered
- Loggerhead Sea Turtle *Caretta caretta* Threatened
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Piping Plover *Charadrius melodus* Threatened
- Puma (=mountain Lion) *Puma (=Felis) concolor* (all subsp. except *coryi*) Similarity of Appearance (Threatened)
- Red-cockaded Woodpecker *Dryobates borealis* Threatened
- Southeastern Beach Mouse *Peromyscus polionotus niveiventris* Threatened
- Tiny Polygala *Polygala smallii* Endangered
- West Indian Manatee *Trichechus manatus* Threatened
- Wood Stork *Mycteria americana* Threatened

Critical Habitats:

- Green Sea Turtle *Chelonia mydas* Threatened
- Loggerhead Sea Turtle *Caretta caretta* Threatened
- West Indian Manatee *Trichechus manatus* Threatened

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the species covered by this key. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Florida Ecological Services Field Office and reference Project Code 2025-0110029 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

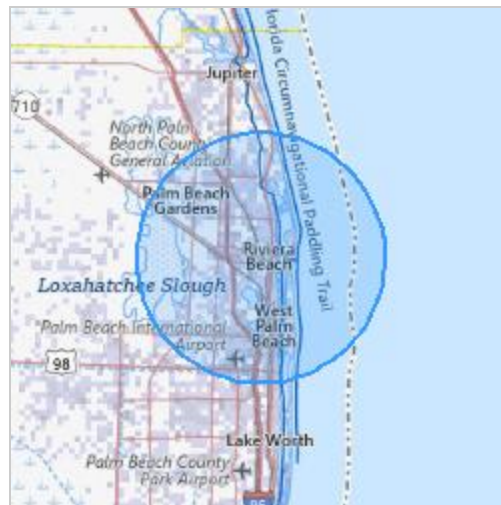
SFL6 Drone Project_WPB Drone Sites - Various Florida Delivery Areas

2. Description

The following description was provided for the project 'SFL6 Drone Project_WPB Drone Sites - Various Florida Delivery Areas':

Drone delivery project.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@26.7741154,-80.065833325,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the species covered by this determination key. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

10. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

11. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

12. Will the action cause effects to a bridge?

Note: Covered bridges should be considered as bridges in this question.

No

13. Will the action result in effects to a culvert or tunnel at any time of year?

No

14. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

15. Does the action include the intentional exclusion of bats from a building or structure?

Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

16. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

No

17. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

Note: For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

22. Will the action include drilling or blasting?

No

23. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

No

24. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

25. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

26. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

27. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

No

28. Will the proposed action result in the use of prescribed fire?

Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

29. Does the action area intersect the tricolored bat species list area?

Automatically answered

Yes

30. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known tricolored bat hibernacula? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

31. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

32. Has a presence/probable absence bat survey targeting the [tricolored bat and following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area?

No

33. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?
(If unsure, answer ""Yes."")

Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the [Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines](#).

Yes

34. Do you have any documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Private Entity
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State: FL
Zip: 32819
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Phone: 4076006723

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
Phone: (352) 448-9151 Fax: (772) 562-4288
Email Address: fw4flesregs@fws.gov

In Reply Refer To:

07/14/2025 17:34:45 UTC

Project Code: 2025-0110034

Project Name: SFL3_SFL9 Drone Sites - Various Florida Delivery Areas

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Please include your Project Code, listed at the top of this letter, in all subsequent correspondence regarding this project. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of

this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Marine Mammals

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Florida Ecological Services Field Office

777 37th St

Suite D-101

Vero Beach, FL 32960-3559

(352) 448-9151

PROJECT SUMMARY

Project Code: 2025-0110034
Project Name: SFL3_SFL9 Drone Sites - Various Florida Delivery Areas
Project Type: Drones - Use/Operation of Unmanned Aerial Systems
Project Description: Drone delivery project.
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@26.20772775,-80.2913889,14z>



Counties: Broward and Miami-Dade counties, Florida

ENDANGERED SPECIES ACT SPECIES

There is a total of 31 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Florida Bonneted Bat <i>Eumops floridanus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8630	Endangered
Florida Panther <i>Puma (=Felis) concolor coryi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1763 General project design guidelines: https://ipac.ecosphere.fws.gov/project/VG7MDLDKTB7VC6OMZCJZD55QY/documents/generated/7123.pdf	Endangered
Puma (=mountain Lion) <i>Puma (=Felis) concolor (all subsp. except coryi)</i> Population: FL No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6049	Similarity of Appearance (Threatened)
Southeastern Beach Mouse <i>Peromyscus polionotus niveiventris</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3951	Threatened
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered
West Indian Manatee <i>Trichechus manatus</i> There is final critical habitat for this species. Your location overlaps the critical habitat. <i>This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.</i> Species profile: https://ecos.fws.gov/ecp/species/4469 General project design guidelines: https://ipac.ecosphere.fws.gov/project/VG7MDLDKTB7VC6OMZCJZD55QY/documents/generated/7281.pdf	Threatened

BIRDS

NAME	STATUS
Crested Caracara (audubon's) [fl Dps] <i>Caracara plancus audubonii</i> Population: FL DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8250	Threatened
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Everglade Snail Kite <i>Rostrhamus sociabilis plumbeus</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7713	Endangered

NAME	STATUS
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477 General project design guidelines: https://ipac.ecosphere.fws.gov/project/VG7MDLDKTB7VC6OMZCJZD55QY/documents/generated/6954.pdf	Threatened

REPTILES

NAME	STATUS
American Alligator <i>Alligator mississippiensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/776	Similarity of Appearance (Threatened)
American Crocodile <i>Crocodylus acutus</i> Population: U.S.A. (FL) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6604	Threatened
Eastern Indigo Snake <i>Drymarchon couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened

FISHES

NAME	STATUS
Gulf Sturgeon <i>Acipenser oxyrinchus (=oxyrhynchus) desotoi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/651	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Beach Jacquemontia <i>Jacquemontia reclinata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1277	Endangered
Blodgett's Silverbush <i>Argythamnia blodgettii</i>	Threatened

NAME	STATUS
Population: There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/6823	
Cape Sable Thoroughwort <i>Chromolaena frustrata</i> Population: There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4733	Endangered
Carter's Mustard <i>Warea carteri</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5583	Endangered
Carter's Small-flowered Flax <i>Linum carteri carteri</i> Population: There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7208	Endangered
Crenulate Lead-plant <i>Amorpha crenulata</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6470	Endangered
Deltoid Spurge <i>Chamaesyce deltoidea ssp. deltoidea</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/199	Endangered
Everglades Bully <i>Sideroxylon reclinatum ssp. austrofloridense</i> Population: There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/4735	Threatened
Florida Brickell-bush <i>Brickellia mosieri</i> Population: There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/956	Endangered
Florida Pineland Crabgrass <i>Digitaria pauciflora</i> Population: There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/3728	Threatened
Florida Prairie-clover <i>Dalea carthagenensis floridana</i> Population: There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/2300	Endangered
Florida Semaphore Cactus <i>Consolea corallicola</i> Population: There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4356	Endangered

NAME	STATUS
Pineland Sandmat <i>Chamaesyce deltoidea pinetorum</i> Population: There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1914	Threatened
Sand Flax <i>Linum arenicola</i> Population: There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/4313	Endangered
Small's Milkpea <i>Galactia smallii</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3360	Endangered
Tiny Polygala <i>Polygala smallii</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/996	Endangered

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Everglade Snail Kite <i>Rostrhamus sociabilis plumbeus</i> https://ecos.fws.gov/ecp/species/7713#crithab	Final

You should contact the local field office to determine whether critical habitat for the following species should be considered:

NAME	STATUS
West Indian Manatee <i>Trichechus manatus</i> https://ecos.fws.gov/ecp/species/4469#crithab	Final

MARINE MAMMALS

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries³ [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on

this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

1. The [Endangered Species Act](#) (ESA) of 1973.
2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME

West Indian Manatee *Trichechus manatus*

Species profile: <https://ecos.fws.gov/ecp/species/4469>

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Sarah McAbee
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City: Orlando
State: FL
Zip: 32819
Email: smcabee@esassoc.com
Phone: 4076006723

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
Phone: (352) 448-9151 Fax: (772) 562-4288
Email Address: fw4flesregs@fws.gov

In Reply Refer To:

07/14/2025 17:31:16 UTC

Project code: 2025-0110034

Project Name: SFL3_SFL9 Drone Sites - Various Florida Delivery Areas

Federal Nexus: yes

Federal Action Agency (if applicable): Federal Aviation Administration

Subject: Record of project representative's no effect determination for 'SFL3_SFL9 Drone Sites - Various Florida Delivery Areas'

Dear Sarah McAbee:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on July 14, 2025, for 'SFL3_SFL9 Drone Sites - Various Florida Delivery Areas' (here forward, Project). This project has been assigned Project Code 2025-0110034 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey)**, invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat and/or Tricolored Bat

Based upon your IPaC submission and a standing analysis, your project has reached the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are 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. 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. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Alligator *Alligator mississippiensis* Similarity of Appearance (Threatened)
- American Crocodile *Crocodylus acutus* Threatened
- Beach Jacquemontia *Jacquemontia reclinata* Endangered
- Blodgett's Silverbush *Argythamnia blodgettii* Threatened
- Cape Sable Thoroughwort *Chromolaena frustrata* Endangered
- Carter's Mustard *Warea carteri* Endangered
- Carter's Small-flowered Flax *Linum carteri carteri* Endangered
- Crenulate Lead-plant *Amorpha crenulata* Endangered
- Crested Caracara (audubon's) [fl Dps] *Caracara plancus audubonii* Threatened
- Deltoid Spurge *Chamaesyce deltoidea ssp. deltoidea* Endangered

- Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Threatened
- Eastern Indigo Snake *Drymarchon couperi* Threatened
- Everglade Snail Kite *Rostrhamus sociabilis plumbeus* Endangered
- Everglades Bully *Sideroxylon reclinatum ssp. austrofloridense* Threatened
- Florida Bonneted Bat *Eumops floridanus* Endangered
- Florida Brickell-bush *Brickellia mosieri* Endangered
- Florida Panther *Puma (=Felis) concolor coryi* Endangered
- Florida Pineland Crabgrass *Digitaria pauciflora* Threatened
- Florida Prairie-clover *Dalea carthagenensis floridana* Endangered
- Florida Semaphore Cactus *Consolea corallicola* Endangered
- Gulf Sturgeon *Acipenser oxyrinchus (=oxyrhynchus) desotoi* Threatened
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Pineland Sandmat *Chamaesyce deltoidea pinetorum* Threatened
- Puma (=mountain Lion) *Puma (=Felis) concolor (all subsp. except coryi)* Similarity of Appearance (Threatened)
- Sand Flax *Linum arenicola* Endangered
- Small's Milkpea *Galactia smallii* Endangered
- Southeastern Beach Mouse *Peromyscus polionotus niveiventris* Threatened
- Tiny Polygala *Polygala smallii* Endangered
- West Indian Manatee *Trichechus manatus* Threatened
- Wood Stork *Mycteria americana* Threatened

Critical Habitats:

- Everglade Snail Kite *Rostrhamus sociabilis plumbeus* Endangered
- West Indian Manatee *Trichechus manatus* Threatened

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the species covered by this key. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Florida Ecological Services Field Office and reference Project Code 2025-0110034 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

SFL3_SFL9 Drone Sites - Various Florida Delivery Areas

2. Description

The following description was provided for the project 'SFL3_SFL9 Drone Sites - Various Florida Delivery Areas':

Drone delivery project.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@26.20772775,-80.2913889,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the species covered by this determination key. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

Yes

3. Your project overlaps with Zone 2 of the area where northern long-eared bats and tricolored bats may be present and roosting in trees year-round.

Do you understand that your project may impact bats at any time during the year?

Yes

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

10. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

11. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

12. Will the action cause effects to a bridge?

Note: Covered bridges should be considered as bridges in this question.

No

13. Will the action result in effects to a culvert or tunnel at any time of year?

No

14. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

15. Does the action include the intentional exclusion of bats from a building or structure?

Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

16. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

No

17. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

Note: For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

22. Will the action include drilling or blasting?

No

23. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

No

24. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

25. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

26. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

27. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

No

28. Will the proposed action result in the use of prescribed fire?

Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

29. Does the action area intersect the tricolored bat species list area?

Automatically answered

Yes

30. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known tricolored bat hibernacula? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

31. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

32. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

Has a presence/probable absence survey for the tricolored bat following the Service's [Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area? If unsure, answer "No."

No

33. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

Is suitable tricolored bat habitat present within 1000 feet of project activities? Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer "Yes." Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

34. Do you have any documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Sarah McAbee
Address: 5401 South Kirkman Road, Suite 475
City: Orlando
State: FL
Zip: 32819
Email: smcabee@esassoc.com
Phone: 4076006723

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
Phone: (352) 448-9151 Fax: (772) 562-4288
Email Address: fw4flesregs@fws.gov

In Reply Refer To:

07/14/2025 20:12:37 UTC

Project Code: 2025-0110007

Project Name: Tampa Drone Project (TPA1, TPA4) - Various Drone Delivery Areas

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Please include your Project Code, listed at the top of this letter, in all subsequent correspondence regarding this project. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of

this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Marine Mammals
- Coastal Barriers

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Florida Ecological Services Field Office

777 37th St

Suite D-101

Vero Beach, FL 32960-3559

(352) 448-9151

PROJECT SUMMARY

Project Code: 2025-0110007
Project Name: Tampa Drone Project (TPA1, TPA4) - Various Drone Delivery Areas
Project Type: Drones - Use/Operation of Unmanned Aerial Systems
Project Description: Drone delivery project.
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@28.02577925,-82.35527777499999,14z>



Counties: Hillsborough and Manatee counties, Florida

ENDANGERED SPECIES ACT SPECIES

There is a total of 17 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered
West Indian Manatee <i>Trichechus manatus</i> There is final critical habitat for this species. Your location overlaps the critical habitat. <i>This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.</i> Species profile: https://ecos.fws.gov/ecp/species/4469 General project design guidelines: https://ipac.ecosphere.fws.gov/project/4CZ3YEYMONCLJDMCJM7Q77S6EI/documents/generated/7281.pdf	Threatened

BIRDS

NAME	STATUS
Crested Caracara (audubon's) [fl Dps] <i>Caracara plancus audubonii</i> Population: FL DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8250	Threatened
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Everglade Snail Kite <i>Rostrhamus sociabilis plumbeus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7713	Endangered
Florida Scrub-jay <i>Aphelocoma coerulescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6174	Threatened
Rufa Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477 General project design guidelines:	Threatened

NAME	STATUS
https://ipac.ecosphere.fws.gov/project/4CZ3YEYMONCLJDMCJM7Q77S6EI/documents/generated/6954.pdf	

REPTILES

NAME	STATUS
American Crocodile <i>Crocodylus acutus</i> Population: U.S.A. (FL) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6604	Threatened
Eastern Indigo Snake <i>Drymarchon couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened
Short-tailed Snake <i>Stilosoma extenuatum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9266	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Britton's Beargrass <i>Nolina brittoniana</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4460	Endangered
Florida Bonamia <i>Bonamia grandiflora</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2230	Threatened
Pygmy Fringe-tree <i>Chionanthus pygmaeus</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1084	Endangered

LICHENS

NAME	STATUS
Florida Perforate Cladonia <i>Cladonia perforata</i>	Endangered

NAME	STATUS
Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7516	

CRITICAL HABITATS

You should contact the local field office to determine whether critical habitat for the following species should be considered:

NAME	STATUS
West Indian Manatee <i>Trichechus manatus</i> https://ecos.fws.gov/ecp/species/4469#crithab	Final

COASTAL BARRIERS

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

SYSTEM UNIT (SU)

*Most new Federal expenditures and financial assistance, including Federal flood insurance, are prohibited within System Units. **Federally-funded projects within System Units require consultation with the Service.** Consultation is not required for projects using private, state, or local funds.*

UNIT	NAME	TYPE	SYSTEM UNIT ESTABLISHMENT DATE	FLOOD INSURANCE PROHIBITION DATE
FL-83	Cockroach Bay	SU	11/16/1990	11/16/1990
FL-83	Cockroach Bay	SU	12/21/2018	12/21/2018

MARINE MAMMALS

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries³ [responsible for seals, sea lions, whales, dolphins,

and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

-
1. The [Endangered Species Act](#) (ESA) of 1973.
 2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
 3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME

West Indian Manatee *Trichechus manatus*

Species profile: <https://ecos.fws.gov/ecp/species/4469>

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Sarah McAbee
Address: 5401 South Kirkman Road, Suite 475
City: Orlando
State: FL
Zip: 32819
Email: smcabee@esassoc.com
Phone: 4076006723

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
Phone: (352) 448-9151 Fax: (772) 562-4288
Email Address: fw4flesregs@fws.gov

In Reply Refer To:

07/14/2025 20:07:48 UTC

Project code: 2025-0110007

Project Name: Tampa Drone Project (TPA1, TPA4) - Various Drone Delivery Areas

Federal Nexus: yes

Federal Action Agency (if applicable): Federal Aviation Administration

Subject: Record of project representative's no effect determination for 'Tampa Drone Project (TPA1, TPA4) - Various Drone Delivery Areas'

Dear Sarah McAbee:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on July 14, 2025, for 'Tampa Drone Project (TPA1, TPA4) - Various Drone Delivery Areas' (here forward, Project). This project has been assigned Project Code 2025-0110007 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey)**, invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat and/or Tricolored Bat

Based upon your IPaC submission and a standing analysis, your project has reached the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are 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. 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. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Crocodile *Crocodylus acutus* Threatened
- Britton's Beargrass *Nolina brittoniana* Endangered
- Crested Caracara (audubon's) [fl Dps] *Caracara plancus audubonii* Threatened
- Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Threatened
- Eastern Indigo Snake *Drymarchon couperi* Threatened
- Everglade Snail Kite *Rostrhamus sociabilis plumbeus* Endangered
- Florida Bonamia *Bonamia grandiflora* Threatened
- Florida Perforate Cladonia *Cladonia perforata* Endangered
- Florida Scrub-jay *Apelocoma coerulescens* Threatened
- Monarch Butterfly *Danaus plexippus* Proposed Threatened

- Pygmy Fringe-tree *Chionanthus pygmaeus* Endangered
- Rufa Red Knot *Calidris canutus rufa* Threatened
- Short-tailed Snake *Stilosoma extenuatum* Proposed Threatened
- West Indian Manatee *Trichechus manatus* Threatened
- Whooping Crane *Grus americana* Experimental Population, Non-Essential
- Wood Stork *Mycteria americana* Threatened

Critical Habitats:

- West Indian Manatee *Trichechus manatus* Threatened

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the species covered by this key. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Florida Ecological Services Field Office and reference Project Code 2025-0110007 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Tampa Drone Project (TPA1, TPA4) - Various Drone Delivery Areas

2. Description

The following description was provided for the project 'Tampa Drone Project (TPA1, TPA4) - Various Drone Delivery Areas':

Drone delivery project.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@28.02577925,-82.35527777499999,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the species covered by this determination key. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

10. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

11. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

12. Will the action cause effects to a bridge?

Note: Covered bridges should be considered as bridges in this question.

No

13. Will the action result in effects to a culvert or tunnel at any time of year?

No

14. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

15. Does the action include the intentional exclusion of bats from a building or structure?

Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

16. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

No

17. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

Note: For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

22. Will the action include drilling or blasting?

No

23. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

No

24. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

25. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

26. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

27. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

No

28. Will the proposed action result in the use of prescribed fire?

Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

29. Does the action area intersect the tricolored bat species list area?

Automatically answered

Yes

30. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known tricolored bat hibernacula? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

31. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

32. Has a presence/probable absence bat survey targeting the [tricolored bat and following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area?

No

33. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?
(If unsure, answer ""Yes."")

Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the [Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines](#).

Yes

34. Do you have any documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

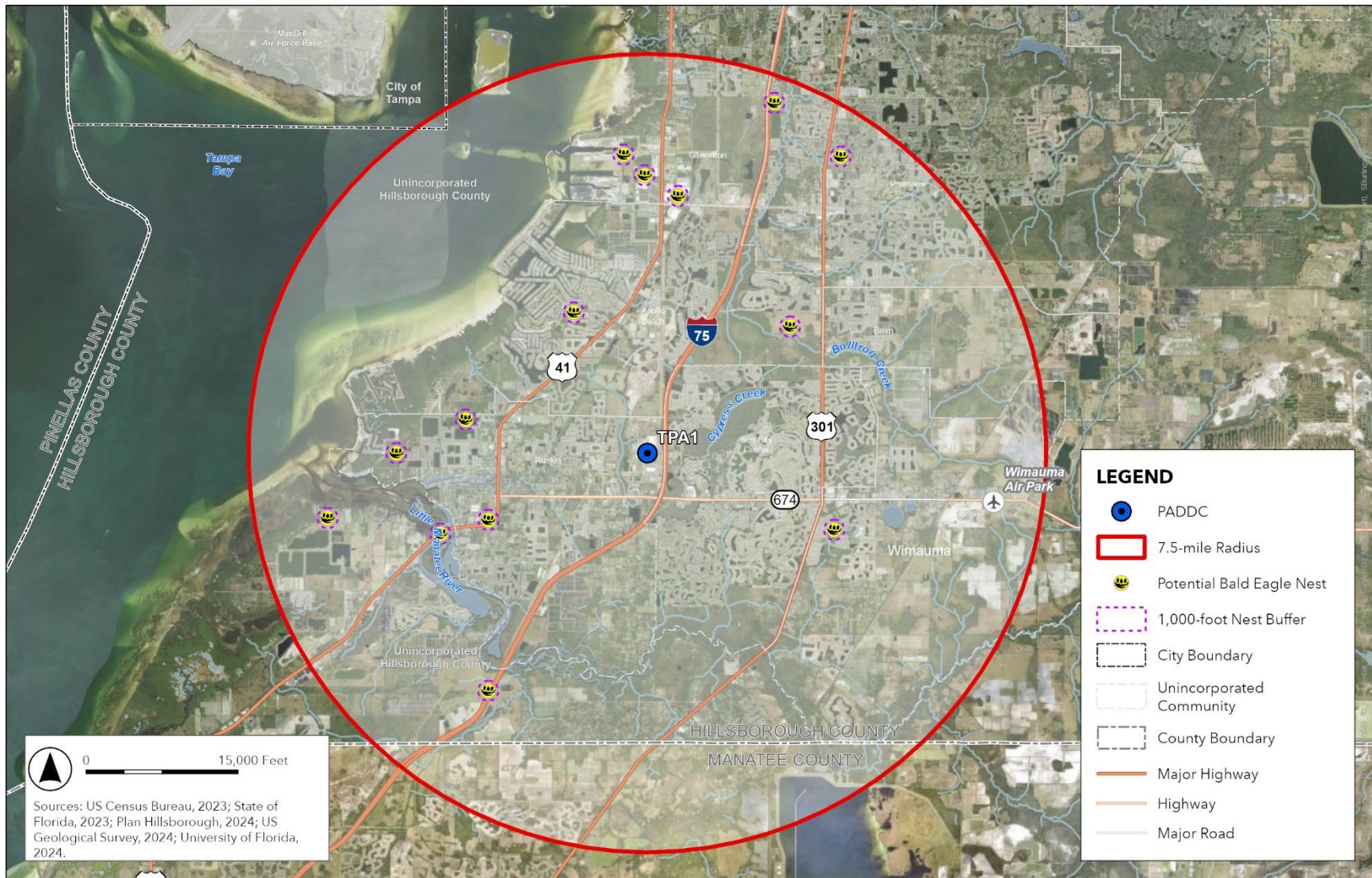
IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Sarah McAbee
Address: 5401 South Kirkman Road, Suite 475
City: Orlando
State: FL
Zip: 32819
Email: smcabee@esassoc.com
Phone: 4076006723

LEAD AGENCY CONTACT INFORMATION

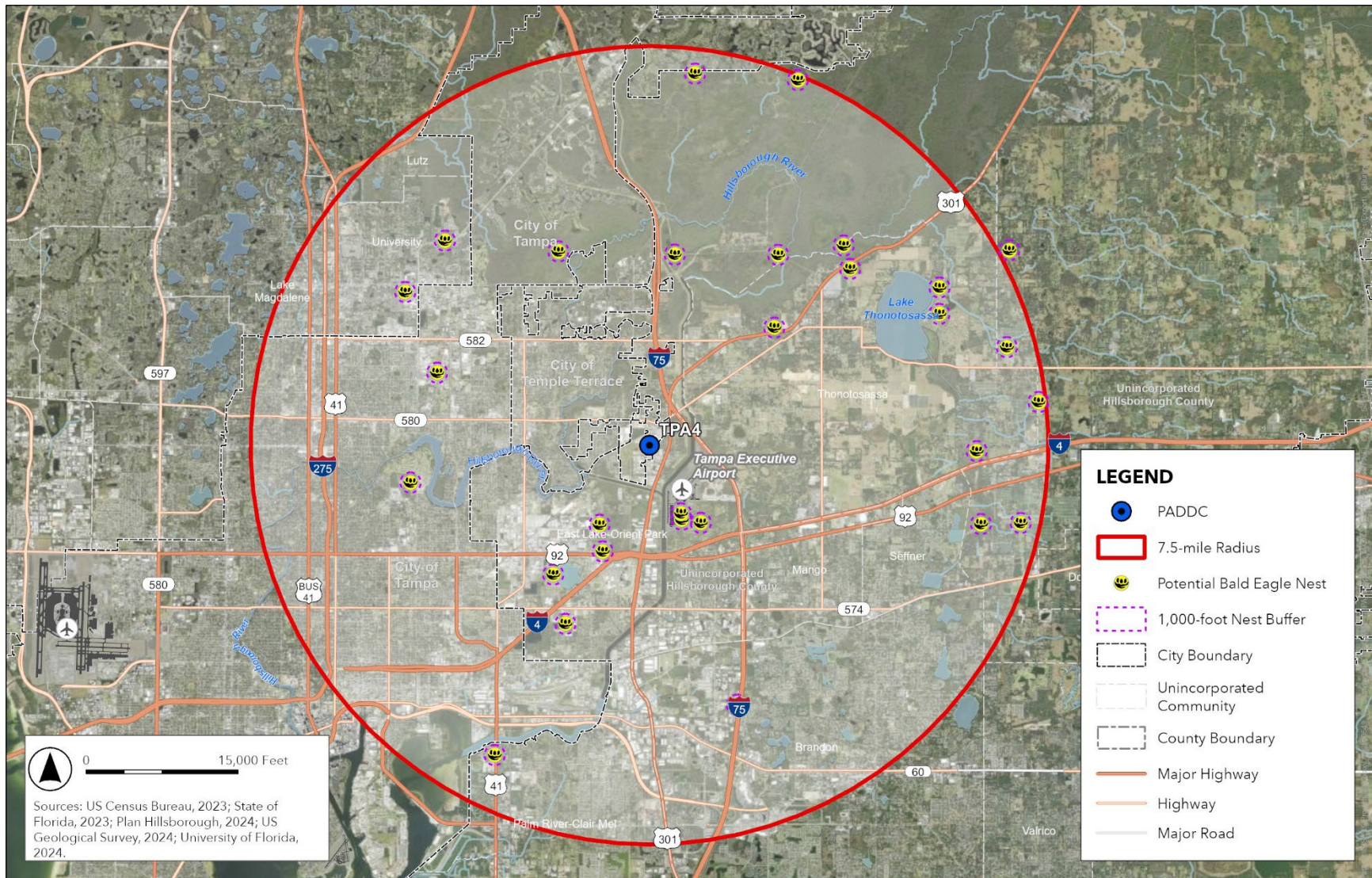
Lead Agency: Federal Aviation Administration

Attachment E
Potential Bald Eagle Nests



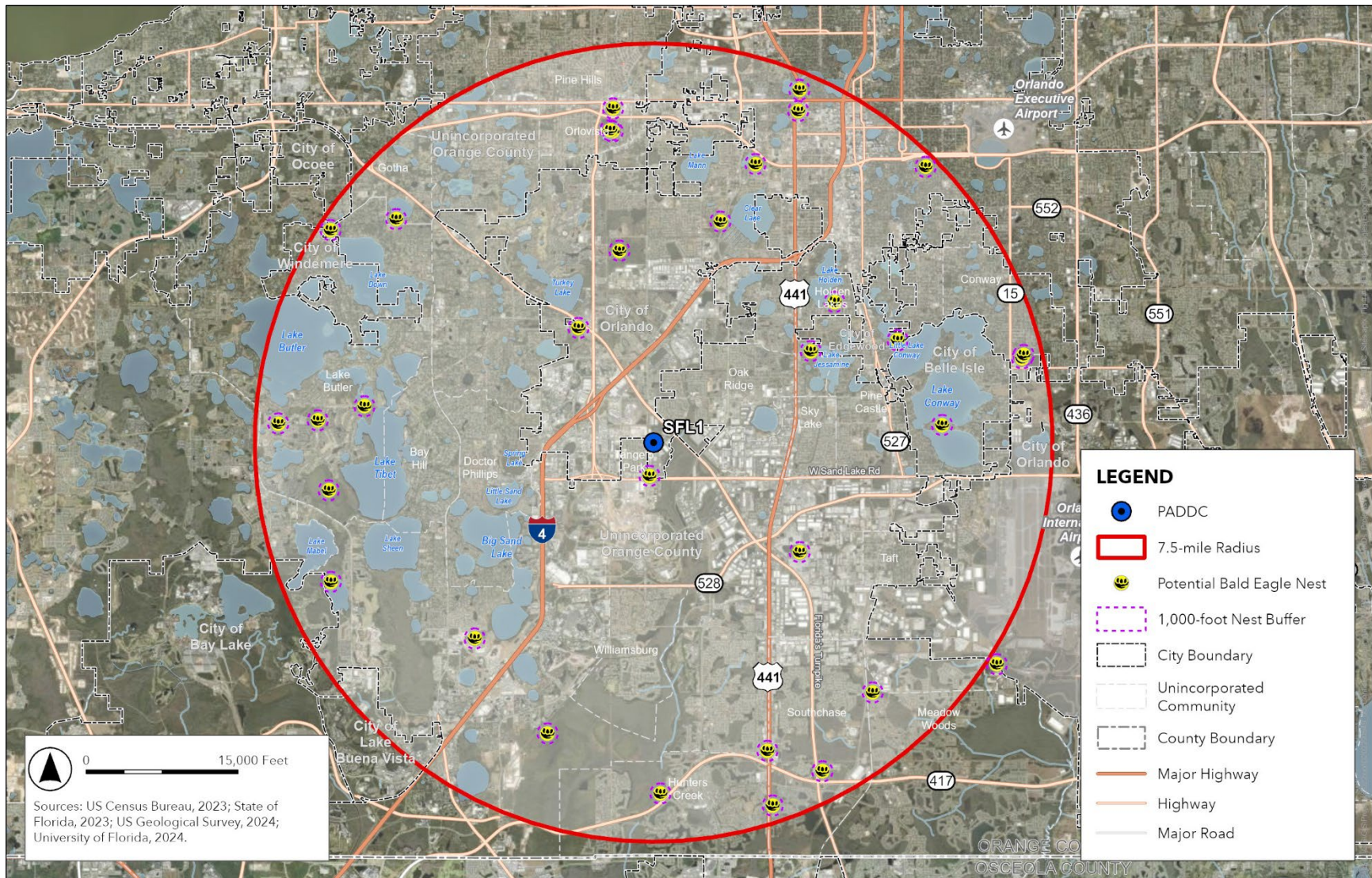
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; Plan Hillsborough, 2024; US Geological Survey, 2024; University of Florida, 2024.

Potential Bald Eagle Nests in TPA1 Action Area



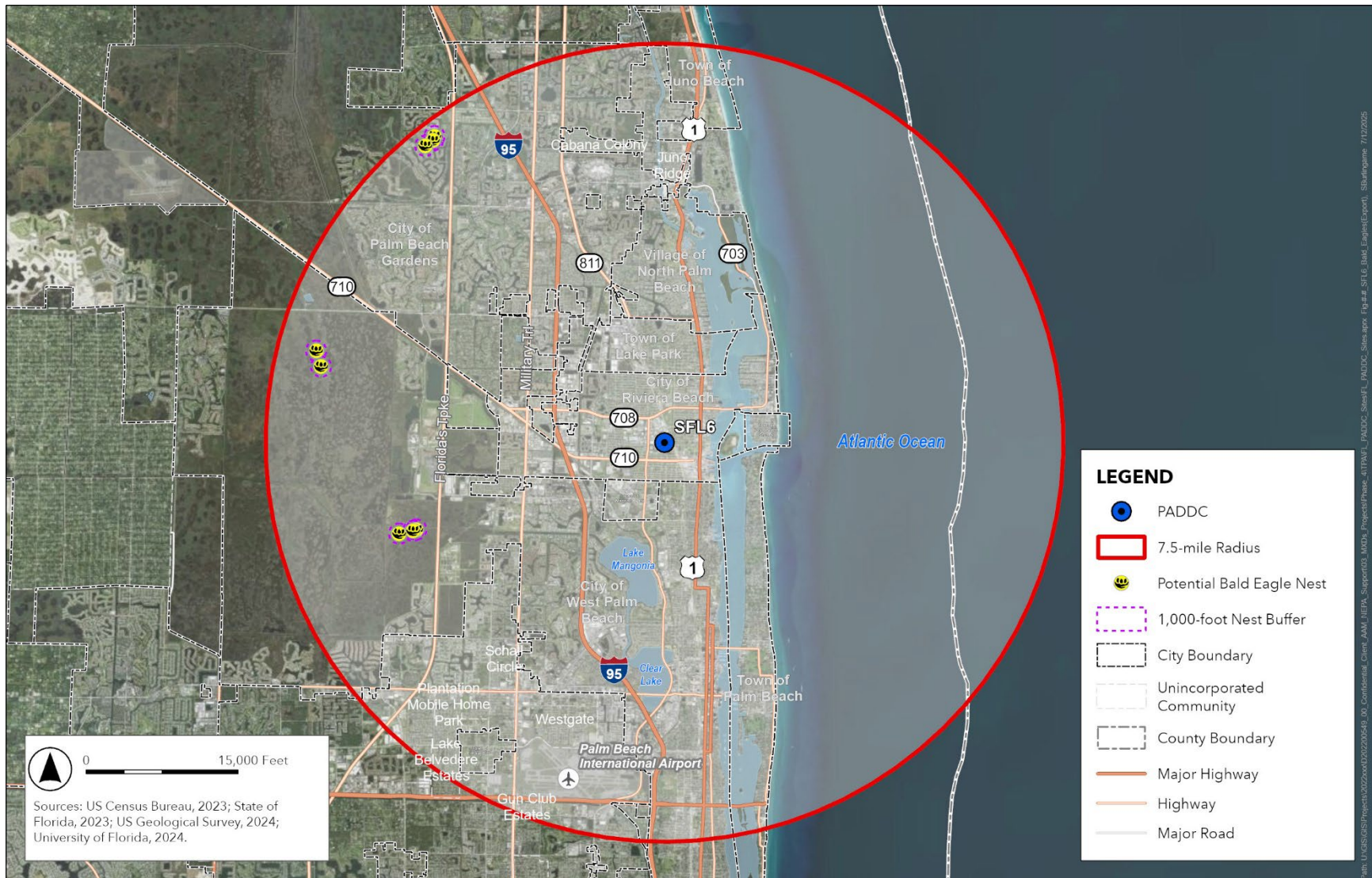
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; Plan Hillsborough, 2024; US Geological Survey, 2024; University of Florida, 2024.

Potential Bald Eagle Nests in TPA4 Action Area



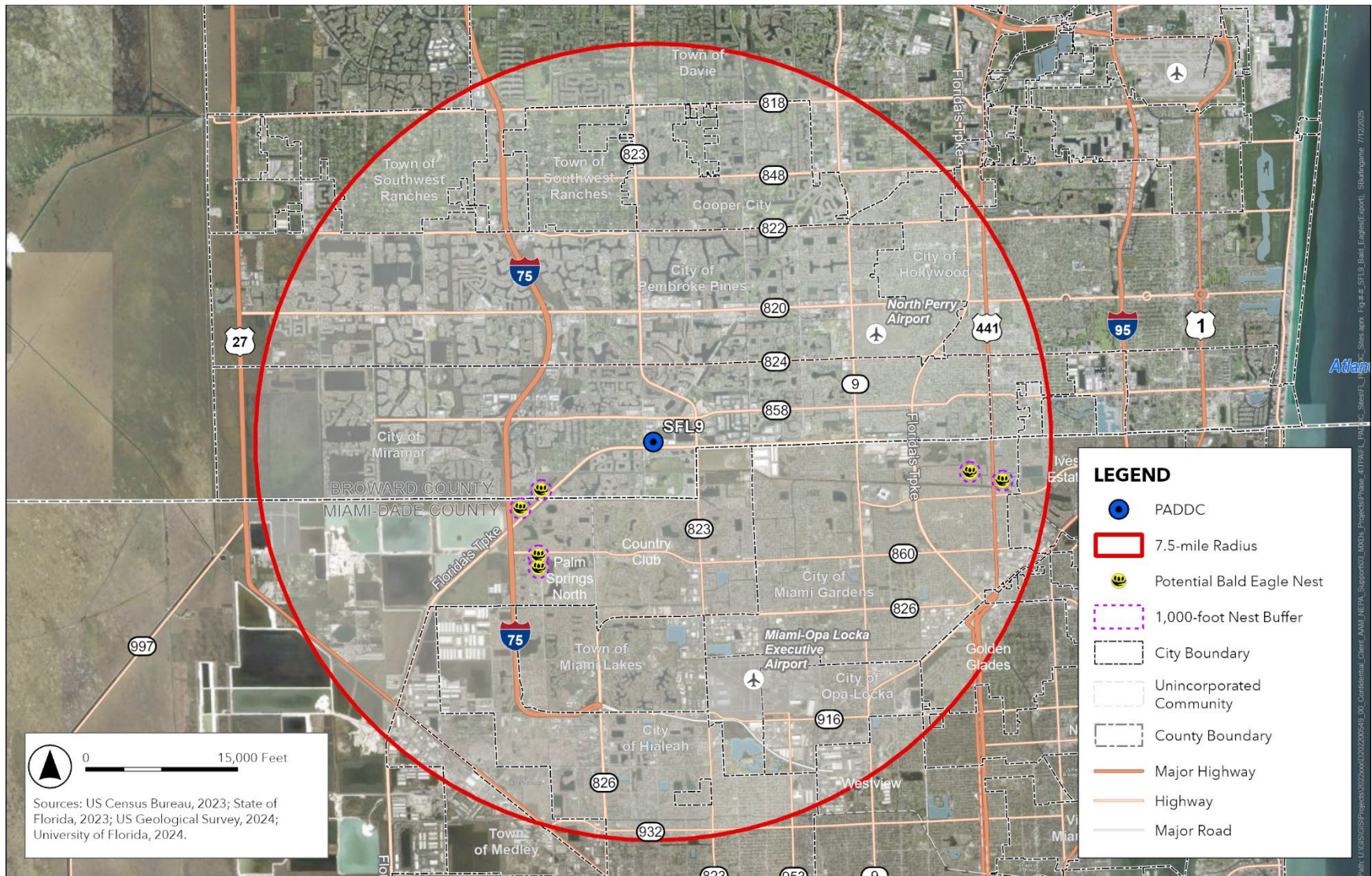
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

Potential Bald Eagle Nests in SFL1 Action Area



SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

Potential Bald Eagle Nests in SFL6 Action Area



SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

Potential Bald Eagle Nests in SFL9 Action Area



**Florida Fish
and Wildlife
Conservation
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Steven Hudson
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Fort Lauderdale

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Palm Beach Gardens

Gary Lester
Oxford

Albert Maury
Coral Gables

Sonya Rood
St. Augustine

Office of the
Executive Director
Roger A. Young
Executive Director

Charles "Rett" Boyd
Assistant Executive Director

George Warthen
Chief Conservation Officer

Jessica Crawford
Chief of Staff

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850-921-5786 FAX

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32399-1600
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800-955-8771 (T)
800-955-8770 (V)

MyFWC.com

August 28, 2025

Chris Stahl
Florida Department of Environmental Protection
3900 Commonwealth Blvd., M.S. 47
Tallahassee, FL 32399-2400
chris.stahl@floridadep.gov

Re: Federal Aviation Administration - Unmanned Aircraft Package Delivery Operations,
FL202508040539C, Multiple Counties

Dear Mr. Stahl:

Florida Fish and Wildlife Conservation Commission (FWC) staff reviewed the above-referenced project and provides the following comments and recommendations for consideration in accordance with Chapter 379, Florida Statutes (F.S.), and pursuant to the federal National Environmental Policy Act (NEPA), the federal Coastal Zone Management Act, and the State of Florida Coastal Management Program.

Project Description

The Federal Aviation Administration (FAA) has provided a request to review the proposal from Amazon.com Services, doing business as Prime Air, to introduce drone package delivery operations at six Prime Air Drone Delivery Centers (PADDCCs) locations in the state of Florida, with each flight taking a package to a customer delivery address before returning to the PADDCC. Each proposed PADDCC would be located at an existing logistics facility currently operated by Amazon Services. Landing pads used to support drone operations, which would include inspections, maintenance, charging/replacing drone batteries, and loading packages for customer delivery, would occupy a small portion of the facility's existing footprint (e.g., an existing parking lot).

The six proposed drone operating areas are the focal point for delivery areas within a 7.5-mile radius associated with each PADDCC. The locations of the proposed PADDCC facilities in Central and Southeast Florida are:

- TPA1 – 3350 Laurel Ridge Avenue in Ruskin
- TPA4 – 8727 Harney Road in Tampa
- SFL1 – 7469 Kingspointe Parkway, # 300, in Orlando
- SFL3 – 6901 Hiatus Rd in Tamarac
- SFL6 – 1301 President Barack Obama Highway in Riviera Beach
- SFL9 – 3701 Flamingo Road in Miami

The drone model MK30 is specifically planned for use described in the proposal. The MK30 has 6 propellers, weighs approximately 80 pounds, and a wingspan of 5.5 feet. This model has a maximum operating range of 7.5 miles and can fly up to about 67 miles per hour (mph) during wing-borne flights. It uses electric power from rechargeable lithium-ion batteries and is launched vertically using powered lift and converts to using wing lift during horizontal flight. The MK30 is equipped with collision avoidance technology to help avoid conflicts with other aircraft and drones during flights.

Prime Air anticipates operating the MK30 drone up to 1,000 overflights per operating day, per PADDCC, with operating hours occurring between 7:00 am to 10:00 pm, 7 days a week, including holidays. Each MK30 would fly at altitudes of between 180 and 377 feet at a speed of 67 miles

per hour. The takeoff and loading operations would occur at the PADDC and deliveries would involve the drone hovering at 13 feet Above Ground Level (AGL) for approximately 30 seconds. The estimated maximum sound exposure level (SEL) for takeoff, delivery, and landing for the MK30 is estimated at approximately 90.5 dB (at 20 feet), 92.1 dB (at 25 feet), and 91.8 dB (at 20 feet). Predicted sound levels decrease as distances from the drone increase. The maximum SEL for the en route phase is approximately 63.7 dB when the drone is at an altitude of 200 feet AGL and flying at approximately 67 mph.

Potentially Affected Resources

No assessment of potential wildlife impacts was included in the project information provided. Based on the wide variety of landcovers and habitats surrounding each of the six project areas, FWC staff conducted a geographic information system (GIS) analysis of each area which determined the following listed and managed species may be impacted by the proposed activities:

- Least tern (*Sternula antillarum*, State Threatened [ST])
- American oystercatcher (*Haematopus palliatus*, ST)
- Black skimmer (*Rynchops niger*, ST)
- Snowy plover (*Charadrius nivosus*, ST)
- Florida sandhill crane (*Antigone canadensis pratensis*, ST)
- Little blue heron (*Egretta caerulea*, ST)
- Tricolored heron (*Egretta tricolor*, ST)
- Roseate spoonbill (*Platalea ajaja*, ST)
- Reddish egret (*Egretta rufescens*, ST)
- Southeastern American kestrel (*Falco sparverius paulus*, ST)
- Florida burrowing owl (*Athene cunicularia floridana*, ST)
- Florida bonneted bat (*Eumops floridanus*, Federally Endangered [FE])
- Tricolored bat (*Perimyotis subflavus*, Proposed FE)
- Everglade snail kite (*Rostrhamus sociabilis plumbeus*, FE)
- Wood stork (*Mycteria americana*, Federally Threatened [FT])
- Bald eagle (*Haliaeetus leucocephalus*)

Comments and Recommendations

Wildlife Impact Avoidance Measures

Based on the times of day, the relatively large size of the drones, and their flight profiles, the proposed drone activities over Central and South Florida could cause avian and bat species to modify their behavior in response to the sight or sound of the vehicles. In general, many bird and bat species are typically active at dawn and dusk, including at the heights described, and therefore these activities could affect foraging and roosting movements. As an example, species that nest or roost in large flocks, such as wading birds, typically approach or leave their roosts during dawn and dusk. Also, some species, such as the Florida burrowing owl, are predated primarily by other avian species and may mistake a drone for a predatory bird and take cover. Additionally, some species, such as wading birds, shorebirds, and Florida sandhill cranes may flush or abandon their nests if flights get too close during the breeding season.

FWC staff recommends that the applicant review available resources and develop wildlife impact avoidance measures as project planning progresses. For example, FWC's Species Conservation Measures and Permitting Guidelines for both wading birds and imperiled beach-nesting birds (IBNBs) contain specific buffer distances and guidance on the proper use of drones in the vicinity of breeding, brood-rearing, roosting, and other important sites. Some available resources include:

- *Species Conservation Measures and Permitting Guidelines for the Little Blue Heron, Reddish Egret, Roseate Spoonbill, Tricolored Heron* (<https://myfwc.com/media/18634/threatened-wading-birds-guidelines.pdf>), Appendix B. Guidance for Using Unmanned Aerial Systems (UAS) Near Wading Birds
- *Species Conservation Measures and Permitting Guidelines for American Oystercatcher, Snowy Plover, Black Skimmer, and Least Tern* (<https://myfwc.com/media/29766/ibnb-guidelines.pdf>), Appendix F – Operation of Unmanned Aircraft Systems (UAS) Near Imperiled Beach Nesting Birds
- ShoreMapper for IBNBs (<https://gis.myfwc.com/shoremapper/>) provides distances to Recent Breeding sites, Critical Brood-rearing sites, and Critical Roosting sites
- FWC Imperiled Wading Bird Colony Viewer (<https://myfwc.maps.arcgis.com/apps/webappviewer/index.html?id=4929d2910c564e979fa0c58ac9da0c>) provides locations of colonies identified in the previous 5 years
- Audubon EagleWatch map tool (<https://cbop.audubon.org/conservation/about-eaglewatch-program>)

As an example of documented wildlife around these sites, approximately 6 rooftop nesting colony locations for listed seabirds have been documented within the 7.5-mile delivery radius around PADDCC TPA4 and 6 known wading bird colonies within 7.5 miles of PADDCC SFL3. As project planning progresses, FWC staff would appreciate continuing coordination on the above issues. FWC staff would like to meet with Prime Air staff to discuss potential impacts, available resources, and, as appropriate, develop project- and species-specific protocols to reduce the likelihood of negative impacts to wildlife during these activities.

Federal Species

This proposed range also contains suitable habitat or known nesting locations for the federally listed and managed species identified above, including bald eagles nests. FWC staff recommends continued coordination with the U.S. Fish and Wildlife Service (USFWS) Florida Ecological Services Office (ESO) as necessary for information regarding potential impacts to these species. The USFWS ESO can be contacted at FW4FLESRegs@fws.gov.

FWC staff appreciates the opportunity to provide input on this project and finds it consistent with FWC's authorities under the Coastal Zone Management Act/ Florida's Coastal Management Program. For specific technical questions regarding the content of this letter, please contact Josh Cucinella at (352) 620-7330 or by email at Josh.Cucinella@MyFWC.com. All other inquiries may be sent to ConservationPlanningServices@MyFWC.com.

Sincerely,

A handwritten signature in black ink that reads "Will Burnett". The signature is written in a cursive, slightly slanted style.

William Burnett, Director
Office of Conservation Planning Services

wb/jc

Unmanned Aircraft Package Delivery Operations_63609_08282025

Cc: Mike Millard, Federal Aviation Administration, 9-FAA-Drone-Environmental@faa.gov



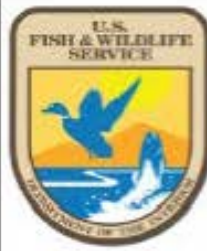
U.S. Department
of Transportation
**Federal Aviation
Administration**

Brendan Myers
Regulatory Biologist
U.S. Fish and Wildlife Service
Florida Ecological Services Office
Saint Petersburg, FL
brendan_myers@fws.gov

**SUBJECT: Endangered Species
Delivery Operation
Project Codes: 202**

Aviation Safety

800 Independence Ave., SW.
Washington, DC 20591



Florida Ecological Services Field Office

Service Project **2026-0022876**
Code No. _____

The U.S. Fish and Wildlife Service has reviewed the information provided and finds that the proposed action is not likely to adversely affect any federally listed species or designated critical habitat protected by the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 et. seq.). A record of this consultation is on file at the Florida Ecological Services Field Office.

This fulfills the requirements of section 7 of the Act and further action is not required. If modifications are made to the project, if additional information involving potential effects to listed species becomes available, or if a new species is listed, reinitiation of consultation may be necessary.

Digitally signed by
CHRISTOPHER PUTNAM
Date: 2026.04.23 16:05:00
-04'00'

Environmental Review Supervisor

In accordance with Section 7 of the Endangered Species Act (ESA), the Federal Aviation Administration (FAA) is requesting U.S. Fish and Wildlife Service (USFWS) concurrence that the FAA's action of authorizing Amazon Prime Air (Prime Air) to conduct commercial drone package delivery operations from six Prime Air Drone Delivery Centers (PADDCs) located throughout Florida (the Proposed Action), is *not likely to adversely affect* the tricolored bat (*Perimyotis subflavus*), Florida bonneted bat (*Eumops floridanus*), Crested Caracara (*Caracara plancus audobonii*), Eastern Black Rail (*Laterallus jamaicensis spp. jamaicensis*), Everglade Snail Kite (*Rostrhamus sociabilis plumbeus*), Rufa Red Knot (*Caliris canutus rufa*), Whooping Crane (*Grus americana*), Wood Stork (*Mycteria americana*), and Piping Plover (*Charadrius melodus*). Additionally, the Proposed Action would have *no effect* on Florida Scrub Jay (*Aphelocoma coerulescens*), Red-Cockaded Woodpecker (*Dryobates borealis*), Black-Capped Petrel (*Pterodroma hasitata*), and monarch butterfly (*Danaus plexippus*).

Project Description

Prime Air is seeking authorization to conduct commercial package deliveries using drones throughout the state of Florida. Prime Air intends to introduce its drone delivery capabilities in 2025 and has requested the FAA to authorize the operation of its MK30 drone, so it can provide drone package delivery services across its operating area. The six proposed MK30 operating areas and PADDCs are depicted in Attachment A.

Prime Air anticipates flying up to approximately 1,000 MK30 drone flights per operating day from each of the six PADDCs, with each flight taking a package to a customer delivery address before returning to the PADDC. The number of flights per day would vary based on customer demand and weather conditions. Prime Air is taking an incremental approach to operations and expects to gradually ramp up to approximately 1,000 flights per day per PADDC as consumer demand increases over time. Drone flights could be conducted up to 365 days a year between 7 A.M. and 10 P.M.

Unmanned Aircraft

As pictured in Attachment B, the MK30 drone is a hybrid multicopter fixed-wing tail-sitter drone with six propulsors allowing it to take off and land vertically and transition to wing borne flight. Its airframe is composed of staggered tandem wings for stable wing borne flight. The drone weighs approximately 78 pounds and has a maximum takeoff weight of approximately 83 pounds, which includes a maximum package payload of 5 pounds. It has a maximum operating range of 7.5 miles (or about 15 minutes) and

can fly up to 58 knots (67 miles per hour) during wing-borne flight. It uses electric power from rechargeable lithium-ion batteries and is launched vertically using powered lift and converts to using wing lift during en route flight. The MK30 is equipped with collision avoidance technology to help avoid conflicts with other aircraft and drones; however, no effective technology exists that can be used to help avoid collisions with wildlife.

Flight Operations

The MK30 drone would generally be operated at an altitude between 180 and 377 feet above ground level (AGL). The outbound en route altitude to a delivery location is expected to be flown between 180 and 279 feet AGL. The inbound en route altitude is expected to be flown between 279 and 377 feet back to the PADDCC. At a delivery location, the drone would descend vertically to a stationary hover and drop a package to the ground. Once a package has been delivered, the drone would ascend vertically to the inbound transition altitude and depart the delivery area while climbing to the en route altitude to return to the PADDCC. The PADDCC is a controlled area wherein drone flights are launched and recovered. The drone would fly a predefined flight path that is set prior to takeoff. Flight missions would be automatically planned by Prime Air's flight planning software, which assigns, deconflicts, and routes each flight. In accordance with FAA safety requirements, the drone would avoid operating over areas with dense human populations, such as over roadways, public gathering spots, etc.

Takeoff

Once a package is loaded onto the MK30 drone and the drone is cleared for departure from the PADDCC, the drone takes off from the ground vertically to an altitude of about 115 feet AGL and then transitions and climbs to its en route altitude of about 200 feet AGL (ranges from 180 and 279 feet AGL). The takeoff phase of flight would last less than one minute.

En Route Outbound

The en route outbound phase is the part of flight in which the MK30 drone transits from the PADDCC to a delivery point on a predefined flight path. During this flight phase, the drone will typically operate at a typical en route altitude of 200 feet AGL with a typical airspeed of 58 knots (67 miles per hour).

Delivery

The delivery phase consists of descent from the en route altitude to a delivery point to deliver a package. The MK30 drone transitions and descends to about 140 feet AGL and then vertically descends to about 13 feet AGL while maintaining position over the delivery point. The drone hovers while dropping the package and then proceeds to climb vertically back to the inbound transition altitude of 197 feet AGL. The MK30 then transitions and climbs to its en route inbound altitude of 345 feet AGL (ranges from 279 to 377 feet AGL). The delivery phase of flight would last approximately one minute.

En Route Inbound

The MK30 drone continues to fly at a typical en route altitude of about 345 feet AGL with a speed of 58 knots towards the PADDCC.

Landing

The drone decelerates as it approaches the PADDCC and descends to the transition altitude of 197 feet AGL and where it transitions from horizontal flight to vertical flight, coming to a zero-speed position over its assigned landing pad. The MK30 drone slowly descends over its assigned landing pad and lands on the pad.

Predicted Sound Levels

Based on a noise analysis using sound level measurement data for the MK30 drone, the estimated maximum sound exposure level (SEL) for the takeoff, delivery, and landing phases of flight is

approximately 90.5 (at 20 feet), 92.1 (at 25 feet), and 91.8 dB (at 20 feet), respectively. Predicted sound levels decrease as distances from the drone increase. The maximum SEL for the en route phase is approximately 63.7 dB when the drone is at an altitude of 200 feet AGL and flying at approximately 58 knots (67 miles per hour). The detailed noise analysis is provided as Attachment C.

Action Area

The action area is defined as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR § 402.02). For this Proposed Action, the action areas are defined as Prime Air's six proposed MK30 operating areas, as depicted in Attachment A. These areas capture all possible flight routes to the delivery areas and where potential effects (e.g., visual, auditory, physical) to listed species could occur.

The action area falls into two different ecoregions. The first ecoregion is the Southern Coastal Plain Ecoregion, and more specifically the Southwestern Florida Flatwoods and Eastern Flatwoods Subregion. The Southwestern Florida Flatwoods Subregion includes Pasco County, to the north, to Lee County, to the south on coastal west Florida; the entirety of Hardee and DeSoto Counties; and portions of Polk, Glades, Hendry, and Collier Counties. It includes barrier islands and peninsulas, Gulf coastal lowlands and valleys, as well as high elevation areas such as the DeSoto Plain and the Polk or Bone Valley Upland. This subregion contains most of the forested Green Swamp area, extensive areas of pasture and rangeland, spreading urbanization, disturbed lands from phosphate mining, and citrus groves to the south. The Eastern Flatwoods Subregion includes St. Johns County to the north and Palm Beach County to the south, is ribbed by sand ridges and some intervening swampy lowlands. Land uses include cropland and pasture, pine plantations, non-forested wetlands, and urban/suburban.

The second ecoregion is the Southern Florida Coastal Plain. It is characterized generally as flat plains with wet soils, marshland, and swamp land cover with everglades and palmetto prairie vegetation types. Specifically, within the ecoregion, the subregion is called the Miami Ridge/Atlantic Coast Strip, which includes southeastern Palm Beach County to the north and Miami-Dade County to the south. Much of the area is urban/built up, cropland, agriculture and pasture.

As indicated above, the Proposed Action would take place over high to medium density developed urban, commercial, and industrial areas, and some rural and agricultural areas scattered throughout the action area. The action area also includes some managed lands and conservation areas. However, flights within these areas would be minimal since most deliveries would be to urban areas. Portions of the Everglades Wildlife Management Area, Grassy Waters Preserve, Cockroach Bay Aquatic Preserve, Little Manatee River State Recreation Area, Hillsborough River State Park, Cypress Creek Nature Preserve, Lower Hillsborough Wildlife Management Area, and John D. MacArthur Beach State Park are within the action areas. These lands are comprised of natural uplands, wetlands, and surface water communities which have the potential to provide habitat for a variety of state and federal protected species. Other habitats utilized for wildlife within urban and developed portions of the action areas include parks, a few open spaces, waterways, and vacant lands. These areas provide habitat for many of the more common and ubiquitous bird and mammal species in the region, including white-tailed deer, eastern gray squirrels, eastern cottontails, raccoons, armadillos, mice, songbirds, raptors, waterfowl, and insects.

ESA-Listed Species and Critical Habitat in the Action Area

For the initiation of USFWS Section 7 Consultation, the FAA acquired Official Species Lists from the USFWS Information for Planning and Conservation (IPaC) online system to identify ESA-listed,

proposed-listed, and candidate species within four regions/action areas of the overall project. Species Lists were generated for the following: SFL 1 (Orlando Action Area, USFWS Project Code 2025-0110021), SFL 6 (West Palm Beach Action Area, USFWS Project Code 2025-0110029), SFL 3 and SFL 9 (Miami Action Area, USFWS Project Code 2025-0110034), and TPA 1 and TPA 4 (Tampa Action Area, Project Code 2025-0110007). For each Project/Action Area, the Tricolored Bat Range-wide Determination Key (Dkey) was entered online. The USFWS Official Lists and Dkeys are provided as Attachment D. Based on earlier coordination with USFWS, of the species identified in the IPaC review, only 13 species were followed through for additional analysis to determine if they may be affected by the drone operations. These are listed below in Table 1.

The remaining species identified include aquatic species, terrestrial mammals, and plants which would not be affected by the proposed action. These species include: West Indian manatee (*Trichechus manatus*), Florida panther (*Puma concolor coryi*), American crocodile (*Crocodylus acutus*), American alligator (*Alligator mississippiensis*), Eastern indigo snake (*Drymarchon couperi*), sand skink (*Neoseps reynoldsi*), green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), Kemp's ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), loggerhead sea turtle (*Caretta caretta*), Gulf sturgeon (*Acipenser oxyrinchus desotoi*), Britton's beargrass (*Norina brittoniana*), Florida bonamia (*Bonamia grandiflora*), pygmy fringe-tree (*Chionanthus pygmaeus*), beautiful pawpaw (*Deeringothamnus pulchellus*), papery whitlow-wort (*Paronychia chartacea*), pigeon wings (*Clitoria fragrans*), sandlace (*Polygonella myriophylla*), scrub lupine (*Lupinus aridorum*), scrub plum (*Prunus geniculata*), beach jacquemontia (*Jacquemontia reclinata*), Florida prairie-clover (*Dalea carthagenensis floridana*), four-petal pawpaw (*Asimina tetramera*), tiny polygala (*Polygala smallii*), Blodgett's silverbush (*Chromolaena frustrata*), Carter's mustard (*Warea carteri*), Carter's small-flowered flax (*Linum carteri carteri*), crenulate lead-plant (*Amorpha crenulate*), deltoid spurge (*Chamaesyce deltoidei spp. deltoidei*), Everglade bully (*Sideroxylon reclinatum spp. Austrofloridense*), Florida Brickell-bush (*Brickellia mosieri*), Florida pineland crabgrass (*Digitaria pauciflora*), Florida prairie-clover (*Dalea carthagenensis*), Florida semaphore cactus (*Consolea corallicola*), pineland sandmat (*Chamaesyce deltoidei pinetorum*)

Table 1. ESA-Listed Species, Species Proposed for Listing, and Candidate Species Potentially Present which have potential to be affected in the Action Areas

Species	Common Name	Species Name	Federal Status	PADDC
Mammals	Tricolored bat	<i>Parimyotis subflavus</i>	Proposed Endangered	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Florida bonneted bat	<i>Eumops floridanus</i>	Endangered	SFL3, SFL6, SFL9
Birds	Crested Caracara	<i>Caracara plancus audobonii</i>	Threatened	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Eastern Black Rail	<i>Laterallus jamaicensis spp. jamaicensis</i>	Threatened	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Everglade Snail Kite	<i>Rostrhamus sociabilis plumbeus</i>	Endangered	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Florida Scrub Jay	<i>Aphelocoma coerulescens</i>	Threatened	TPA1, TPA4, SFL1, SFL6
	Rufa Red Knot	<i>Calidris canutus rufa</i>	Threatened	TPA1, TPA4
	Whooping Crane	<i>Grus americana</i>	Experimental Population, Non-Essential	TPA1, TPA4, SFL1
	Wood Stork	<i>Mycteria americana</i>	Threatened	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9
	Red-Cockaded Woodpecker	<i>Dryobates borealis</i>	Threatened	SFL1, SFL6
	Black-Capped Petrel	<i>Pterodroma hasitata</i>	Endangered	SFL6
	Piping Plover	<i>Charadrius melodus</i>	Threatened	SFL6
Insects	Monarch butterfly	<i>Danais plexippus</i>	Candidate Species	TPA1, TPA4, SFL1, SFL3, SFL6, SFL9

SOURCE: USFWS IP&C, accessed June 2025.

Potential Effects of the Proposed Action on ESA-Listed, Proposed Listed, and Candidate Species

Drone noise, visual presence, and the potential for airborne strikes with flying species are the Proposed Action's potential stressors or threats to ESA-listed species. Flight operations would take place mostly in an urban environment, within airspace, and typically remain well above the tree line while en route to and from the PADDC. The duration of exposure by wildlife on the ground to visual or noise impacts from the drone would be of very short duration (approximately 30 seconds during takeoff/landing and delivery and a few seconds during the en route phase).

As noted above, the highest estimated SEL associated with Prime Air's proposed operations is 92.1 dB, which would occur during delivery. For reference, the sound level of a diesel truck at 50 feet or a noisy urban environment during the day is approximately 80 to 90 dB. The SEL on the ground when the drone is at an altitude of 200 feet AGL is estimated to be around 63.7 dB, which is comparable to the sound of an air conditioning unit at 100 feet (60 dB). The MK30 drone is expected to operate at altitudes higher than 200 feet AGL during en route flight; as such, the en route sound level is expected to be less than 63.7 dB.

A descriptor for noise effects on wildlife has not been universally adopted, but some research indicates SEL is the most useful predictor of responses. Characteristic of the bulk of research to date has been lack of systematic documentation of the source noise event. Many studies report “sound levels” without specifying the frequency spectrum or duration. A notable exception is a study sponsored by U.S. Air Force that identifies SEL as the best descriptor for response of domestic turkey poults to low-altitude aircraft overflights (Bradley et al. 1990). This study identified a threshold of response for disturbance of domestic turkeys (“100 percent rate of crowding”) as SEL 100 dB. None of the predicted sound levels for the different flight phases exceed SEL 92.1 dB.

The following paragraphs describe the anticipated effects of the Proposed Action on the ESA-listed, proposed-listed, and candidate species, as shown above in Table 1.

Tricolored bat and Florida bonneted bat

The tricolored bat (*Perimyotis subflavus*) is a proposed candidate for listing under the jurisdiction of USFWS. As of September 14, 2022, USFWS proposed to list the tricolored bat as an endangered species under the ESA. Designated critical habitat (CH) is not proposed for the tricolored bat at this time.

Tricolored bats are found throughout Florida; however, they are more common in the northern half of the state.

The Florida bonneted bat (*Eumops floridanus*) is a federally listed endangered species which has the potential to occur in the Orlando, West Palm Beach, and Miami Action Areas. No designated Critical Habitat is currently proposed. It is endemic to the state of Florida and is found in the areas from Orlando south to Miami, primarily along the coast. The Florida bonneted bat is Florida’s largest bat species and roosts in trees, rock outcrops, bat houses, chimneys, and under barrel roof tiles. They typically leave their roosts shortly after sunset and fly long distances at high altitudes to forage on insects.

Research suggests that drones have “minimal impact on bat and owl behavior” (Fu, Y., M. Kinniry, and L.N. Kloepper. 2018), and that bats do not appear to be disturbed by drones (August, T. and T. Moore. 2008). Bats at roost or in flight could experience drone noise during the en route and delivery flight phases. When foraging at or near the tree line at the time a drone flies by, bats would experience the greatest sound levels. Roosting bats or bats foraging near the ground at the time a drone flies by would experience lower sound levels. Given the estimated sound levels of the drone, the drone’s linear flight profile to and from nests and delivery locations, the short period of time the drone would be in any particular location, and the low probability of encountering an individual bat in the action area, drone noise is not expected to adversely affect the above referenced bat species. Any increase in ambient sound levels caused by the drone’s flight would only last a few seconds during the en route phase and approximately 49 seconds during a delivery.

There is no Dkey established for the Florida bonneted bat. The USFWS DKey for the tricolored bat resulted in a *No Effect* determination. However, since there is an incidental chance of in-flight encounters with bats, the FAA determination for the tricolored bat and Florida bonneted bat is *may affect, not likely to adversely affect*. This determination is based on:

- 1) operations occurring mostly in an urban environment,
- 2) the altitude at which the drone flies in the en route phase (180 to 377 feet AGL),
- 3) the expected low sound levels experienced by a bat,

- 4) the short duration of any increases in ambient sound levels,
- 5) the low probability of a listed bat species occurring in the action area, and
- 6) the low likelihood of the drone striking a bat.

Any effects would be discountable (extremely unlikely to occur) or insignificant (not able to be meaningfully measured, detected, or evaluated).

Crested Caracara

Audubon's Crested Caracara (*Caracara plancus audubonii*) can be found in various habitats including improved pastures, dry prairies, freshwater marshes, mixed upland hardwoods, shrub and brushland, grassland, and urban areas. Audubon's Crested Caracara is found throughout south-central Florida. The Consultation Area for the species is located along the eastern edge of the Tampa Action Area and the southern edge of the Orlando Action Area. In the instance where involvement with the species were to occur, the Crested Caracara is a large raptor, that would be able to hear and detect a drone approaching and move away in time to avoid a collision. Therefore, an appropriate effect determination is *may affect, not likely to adversely affect* the Crested Caracara.

Eastern Black Rail

The Eastern Black Rail (*Laterallus jamaicensis ssp. jamaicensis*) is an elusive bird which is reliant on dense intact freshwater or brackish wetlands. Eastern Black Rails fly very little and mostly remain on the ground and run quickly through dense vegetation. Due to the behavior and mobilization of the species and their classification as partially migratory (however in the south regions of the country tend to have a smaller range and can sometimes be residents) and the nature of the Proposed Action, the project determination is *may affect, not likely to adversely affect* the species.

Everglade Snail Kite

The Everglade Snail Kite (*Rostrhamus sociabilis plumbeus*) is a federally endangered species. Suitable habitat for the species is present within each of the Action Areas. Critical Habitat was established for the species in the Miami Action Area (PADDC Action Areas SFL3 and SFL9). However, no impacts to Critical Habitat areas are proposed. In addition, the Everglade Snail Kite is a large bird that would be able to hear and detect a drone approaching and move away in time to avoid a collision. Therefore, an appropriate effect determination is *may affect, not likely to adversely affect* for the Proposed Action on the species.

Florida Scrub Jay

The Florida Scrub-Jay (*Aphelocoma coerulescens*) is the only species of bird that is endemic to Florida and has adapted to a very specific habitat known as Florida scrub. Optimal Scrub-Jay habitat occurs on scrub ridges with well drained to excessively well drained soils that have scrubby oaks three to nine feet in height interspersed with 10 to 50 percent unvegetated sandy openings, and a sand pine (*Pinus clausa*) canopy of less than 20 percent. The species has been documented in suboptimal habitats such as those

fragmented by residential developments. The Tampa, Orlando, and West Palm Beach Action Areas are located within the Florida Scrub-Jay Consultation Area; however, the footprint does not contain the required specific active habitat. In addition, the Florida Scrub-Jay is very territorial, and flies close to the ground. Therefore, the Proposed Action will have *no effect* on the species.

Rufa Red Knot

The Rufa Red Knot (*Calidris canutus*) migrates exceptionally long distances, from High Arctic nesting areas to wintering spots in southern South America, Africa, and Australia. Suitable habitat for the species during migration occurs within the Tampa, West Palm Beach, and Miami Action Areas. This habitat is limited to the coastlines, where the drones will rarely spend time flying over. In the rare instance where involvement with the species were to occur, the Rufa Red Knot is a medium sized bird, that would be able to hear and detect a drone approaching and move away in time to avoid a collision. Therefore, an appropriate effect determination is *may affect, not likely to adversely affect* of the Proposed Action on the species.

Whooping Crane

IPaC reported the Whooping Crane (*Grus americana*) as having the potential to occur within the Tampa and Orlando Action Areas. The Whooping Crane breeds, migrates, winters, and forages in a variety of habitats, including coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh and sand or tidal flats, upland swales, wet meadows and rivers, pastures and agricultural fields. Suitable habitat for the species is present within the Southern Action Area; however, the Whooping Crane is a large bird that would be able to hear and detect a drone approaching and move away in time to avoid a collision. The FAA has determined that an appropriate effect determination is *may affect, not likely to adversely affect* the Whooping Crane. Any effects would be discountable (extremely unlikely to occur) or insignificant (not able to be meaningfully measured, detected, or evaluated).

Wood Stork

The Wood Stork (*Mycteria americana*) nests colonially in a variety of inundated wetlands including cypress swamps, mixed hardwood swamps, sloughs, and mangroves and utilizes freshwater marshes, flooded pastures, and roadside ditches for feeding. For the Tampa and Orlando Action Areas, the USFWS has defined the Core Foraging Habitat (CFA) for a wood stork colony as the area within a 15-mile radius from the colony location. For the West Palm Beach and Miami Action Areas, the USFWS has defined the Core Foraging Habitat (CFA) for a wood stork colony as the area within a 18.6-mile radius from the colony location. Suitable habitat for the species is present within each of the Action Areas. However, no disturbance to suitable habitat is proposed. In addition, the wood stork is a large bird that would be able to hear and detect a drone approaching and move away in time to avoid a collision in flight. Therefore, an appropriate effect determination is *may affect, not likely to adversely affect* for the Proposed Action on the species.

Red Cockaded Woodpecker

The IPaC reported the Red-Cockaded Woodpecker (*Dryobates borealis*) (RCW) as having the potential to occur within the Orlando and West Palm Beach Action Areas. RCWs inhabit 90-100 year-old longleaf,

slash and loblolly pine habitats and nest in live pine trees as opposed to the typical dead tree preference of other woodpeckers. They are non-migratory and maintain territories throughout the year and generally forage over a small area close to nests. Given that suitable habitat is likely not present with the Orlando and West Palm Beach Action Areas, the proposed Action will have *no effect* on the RCW.

Black-Capped Petrel

The Black-Capped Petrel (*Pterodroma hasitata*), a federally endangered species under the ESA, is a pelagic seabird that is widely distributed and travels long distances to foraging areas in the western Atlantic and southern Caribbean basins and the central and northeastern Gulf of Mexico. The IPaC reported the Black-Capped Petrel as having potential to occur within the West Palm Beach Action Area. Due to the species being a pelagic seabird, drones are limited to the coastlines and would not operate over the ocean. Therefore, the proposed Action will have *no effect* on the Black-Capped Petrel.

Piping Plover

The IPaC analysis reported the Piping Plover (*Charadrius melodus*) as having the potential to occur in the West Palm Beach Action Area. The Piping Plover is a small shorebird that inhabits sandy beaches, sand flats, and mudflats along coastal areas. The species does not breed in Florida but spend a large portion of the year “wintering”. Drone activity is limited on the coastlines and would typically not operate over beaches or mudflats. Therefore, an appropriate effect determination is *may affect, not likely to adversely affect* for the Proposed Action on the species.

Monarch butterfly

The monarch butterfly (*Danaus plexippus*), a candidate for federal listing, has the potential to occur in the action areas. Information regarding drone impacts on insects is limited and there have been no widespread negative impacts identified in scientific literature. Some research shows that monarch butterflies are not commonly observed at higher altitudes (generally between 1 and 300 feet) and would not be expected to frequently occur at the altitudes where Prime Air is proposing to operate (Altitudes Attained by migrating Monarch Butterflies, 2024). Therefore, it is anticipated that the Proposed Action will have *no effect* on the monarch butterfly.

Bald Eagle

In addition to the above listed species identified within the IPaC review, the potential for impacts to Bald Eagles was evaluated. The location and activity of Bald Eagle nest sites throughout Florida are closely monitored by the Audubon Society and FWC. A desktop review of Audubon EagleWatch mapping indicates that there are 88 Bald Eagle nests documented either within or the protective zones are within the footprint of the Action Areas. Bald Eagle nest locations are provided as Attachment E. The National Bald Eagle Management Guidelines state aircraft should stay at least 1,000 feet from the nests during the breeding season unless the aircraft is operated by a trained wildlife biologist. Prime Air will establish an avoidance area such that there is 1,000 feet vertical and horizontal separation distance between the vehicle’s flight path and the nest during the breeding season.

Conclusion

Based on the analysis above, the FAA has determined the following:

- There will be no direct impacts or alterations to critical habitat located within the action areas for any species listed in Table 1 above,
- The action areas are mostly urbanized, with minimal suitable habitat for the ESA-listed species identified in them.
- Any increase in ambient sound levels would be short in duration.
- Drone dwell/hover time during takeoff and delivery would be less than one minute.
- Drones would generally operate at an altitude between 200 and 345 feet AGL.
- Drone activity would be highly concentrated over developed areas, where there is consumer demand for drone delivery service.
- Based on all of these factors, the probability of a drone/wildlife interaction would be low.

It is important to note that Prime Air has been performing similar drone delivery operations at its College Station, TX facility, for more than two years. A recent assessment of drone maintenance and telemetry records indicates zero instances of drone/wildlife collisions over the course of more than 8,000 delivery operations.

Accordingly, the FAA has determined the Proposed Action is *not likely to adversely affect* the tricolored bat (*Perimyotis subflavus*), Florida bonneted bat (*Eumops floridanus*), Crested Caracara (*Caracara plancus audobonii*), Eastern Black Rail (*Laterallus jamaicensis spp. jamaicensis*), Everglade Snail Kite (*Rostrhamus sociabilis plumbeus*), Rufa Red Knot (*Caliris canutus rufa*), Whooping Crane (*Grus americana*), Wood Stork (*Mycteria americana*), and Piping Plover (*Charadrius melodus*). Additionally, the Proposed Action would have *no effect* on the Florida Scrub Jay (*Aphelocoma coerulescens*), Red-Cockaded Woodpecker (*Dryobates borealis*), Black-Capped Petrel (*Pterodroma hasitata*), and monarch butterfly (*Danaus plexippus*).

Because the delivery of commercial goods by drones is an emerging technology and its potential effects on wildlife are still not well understood, Prime Air is proposing to implement a "Biological Monitoring Program" for this project, which would include:

- Record and analyze daily maintenance and telemetry records to document any potential drone/wildlife interactions,
- If applicable, report wildlife movement / activity in and around airport property that may be obtained from operations or wildlife management staff from nearby airports.
- If applicable, recover and analyze potential biological materials (e.g., snarge, feathers, etc.), generally in accordance with existing protocols used in cases of aircraft bird strikes at airports, and
- Report findings to the USFWS on an annual basis.

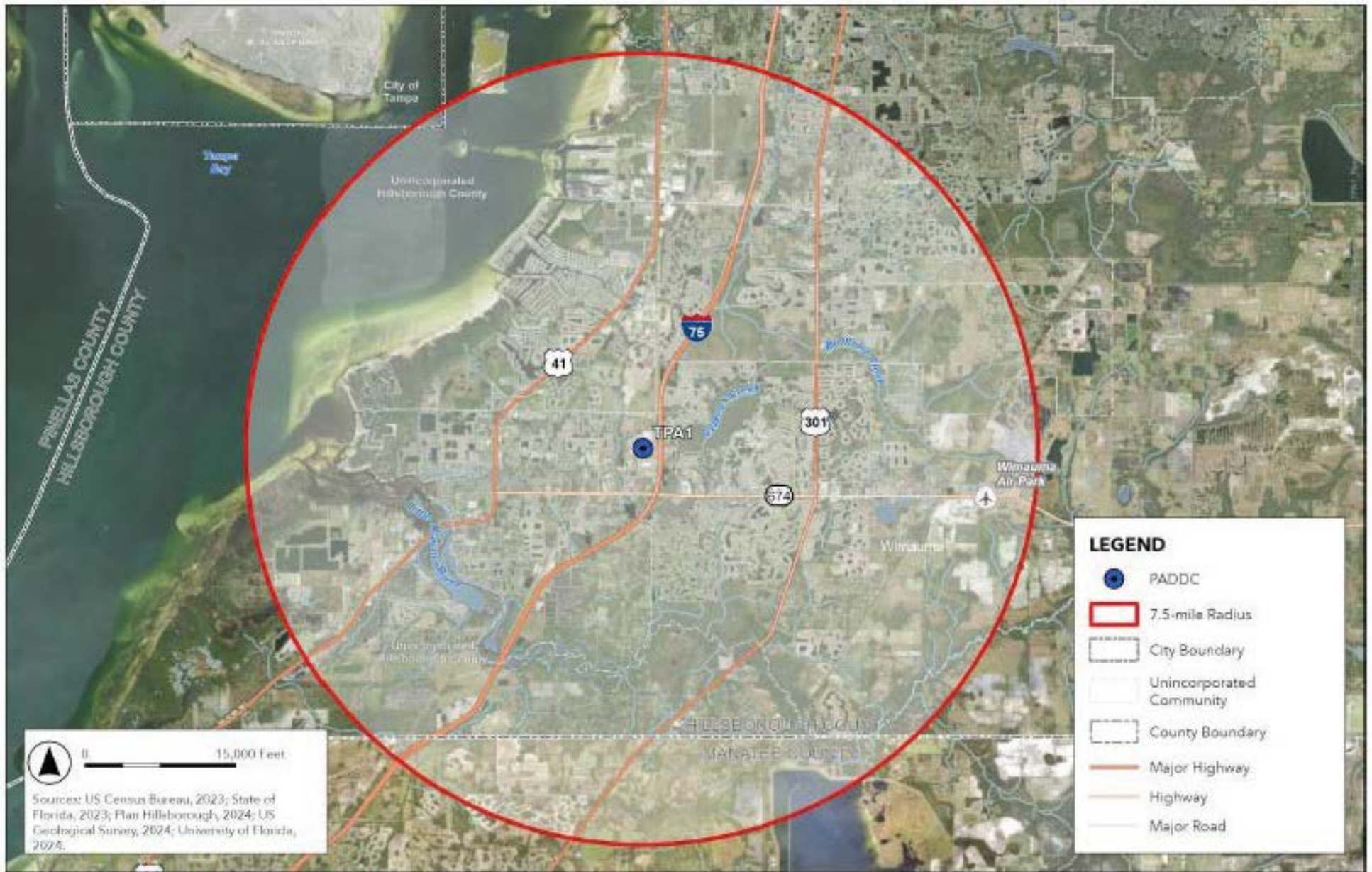
The proposed Biological Monitoring Program would serve as a useful tool for Prime Air, the FAA, and USFWS to better understand the possible interactions between drones and wildlife.

The FAA appreciates your review of the proposed project and requests your concurrence with (1) our "may affect" determination as stated above and (2) implementation of the proposed Biological Monitoring Program within 30 days of receiving this letter. If you have any questions, please contact Christopher Hurst via email at 9-faa-drone-environmental@faa.gov.

Sincerely,

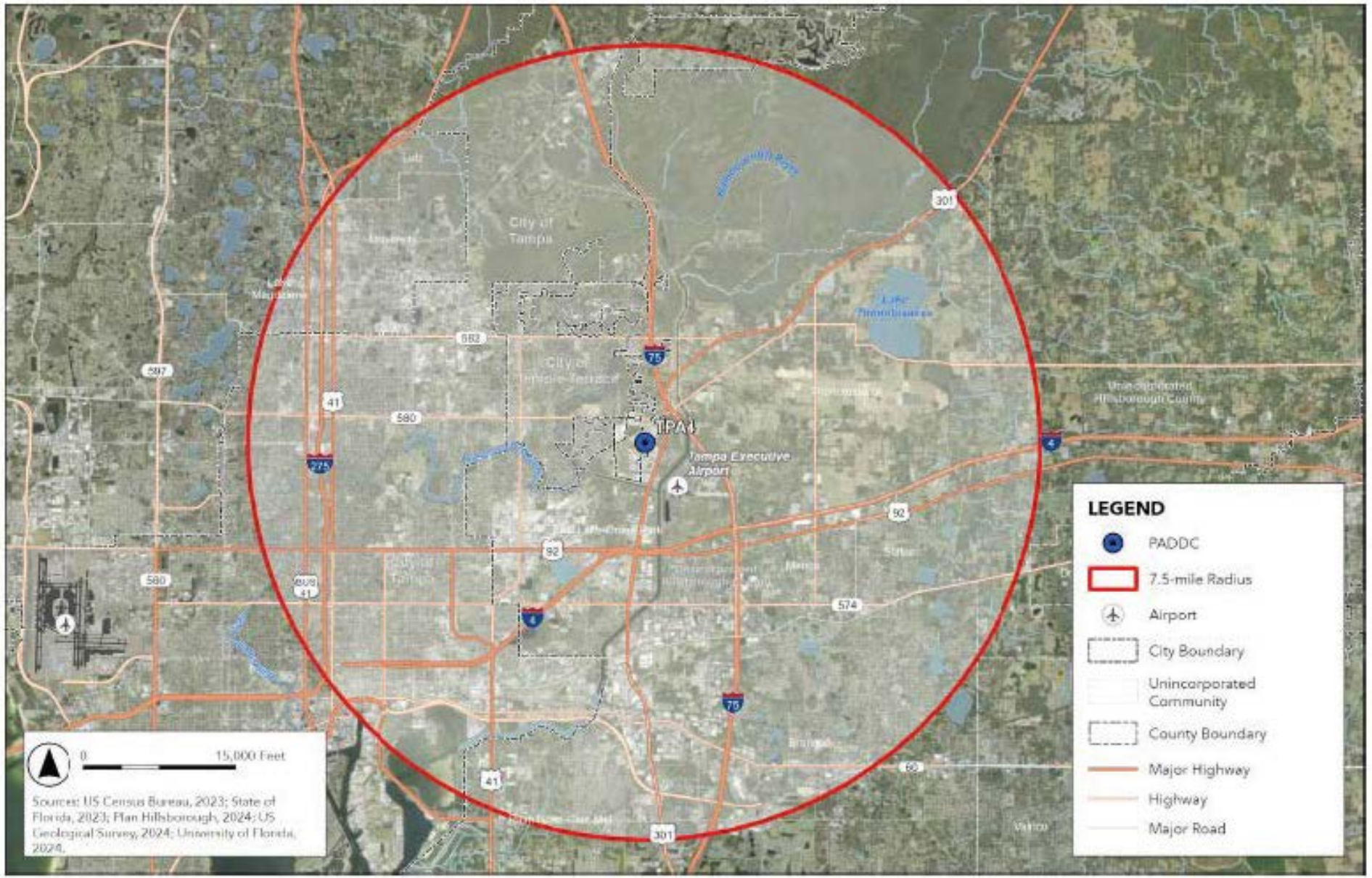
Joseph K.
Hemler Jr

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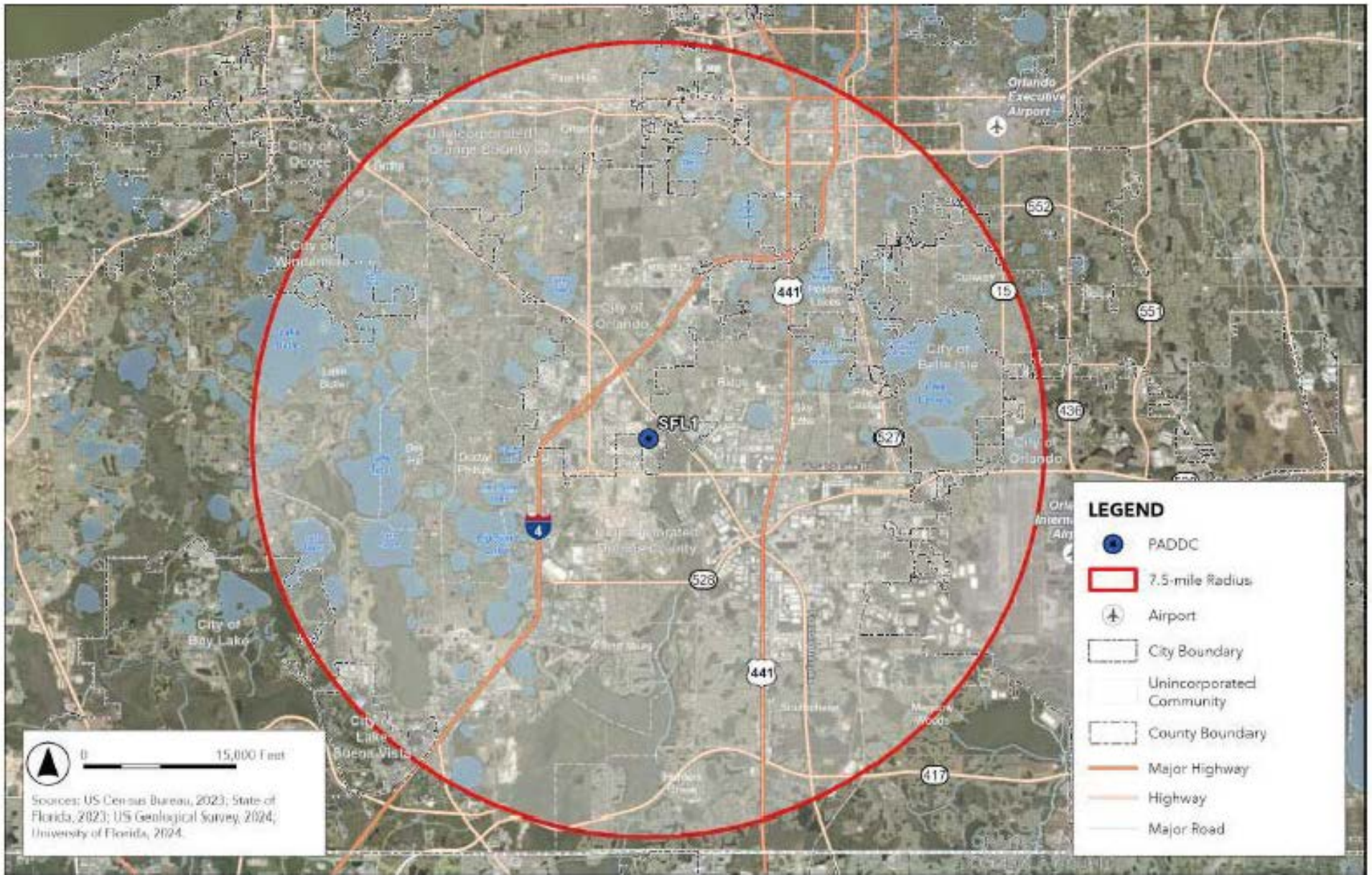
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; Plan Hillsborough, 2024; US Geological Survey, 2024; University of Florida, 2024.

TPA1 Drone Operation Action Area



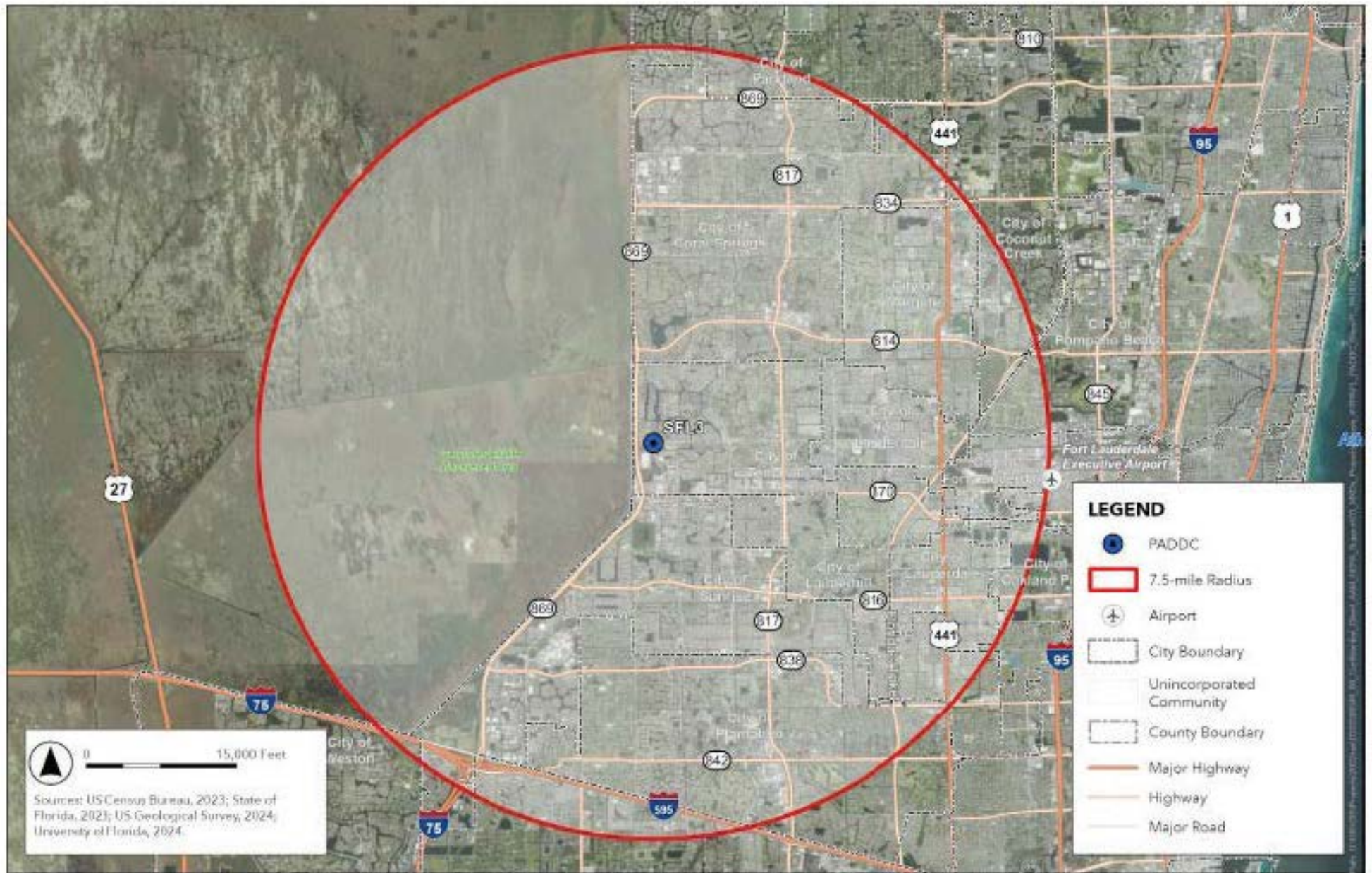
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TPA4 Drone Operation Action Area



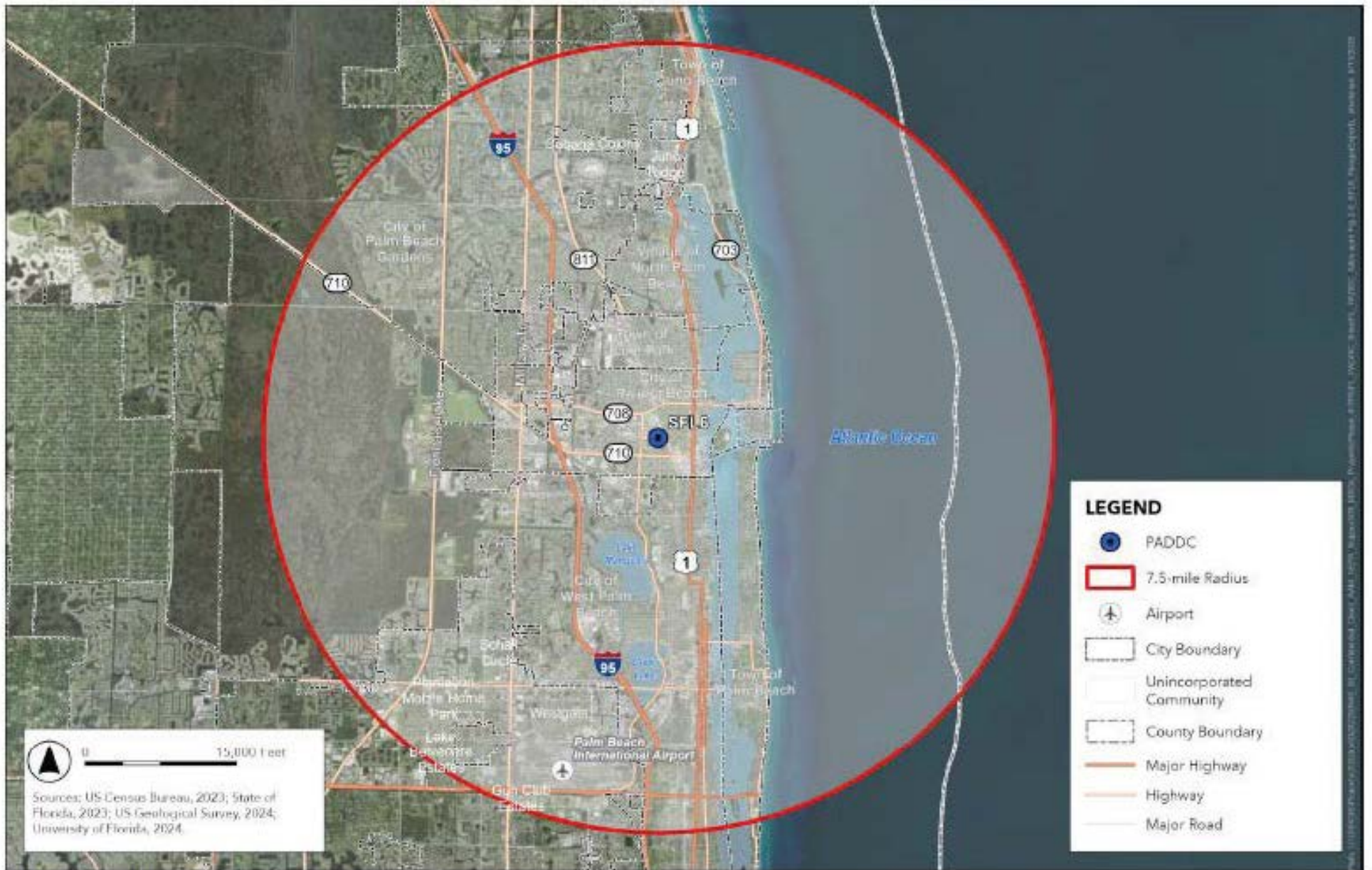
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

SFL1 Drone Operation Action Area



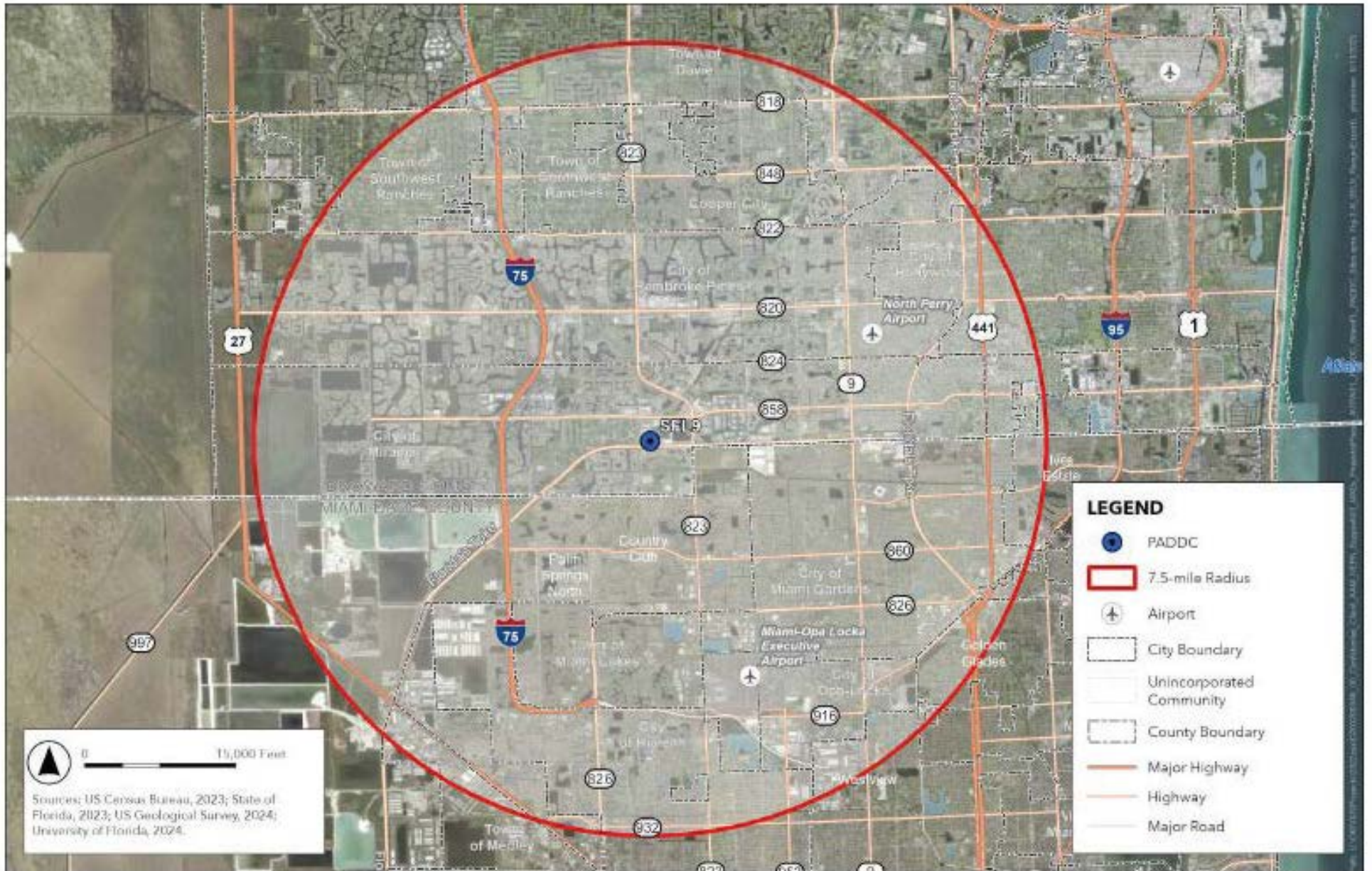
SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

SFL3 Drone Operation Action Area



SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

SFL6 Drone Operation Action Area



SOURCE: ESA, 2025; US Census Bureau, 2023; State of Florida, 2023; US Geological Survey, 2024; University of Florida, 2024.

SFL9 Drone Operation Action Area

1. The Service strongly recommends avoiding flying over or through the Grassy Waters Preserve within Palm Beach County. This area has a high density of Everglades snail kite nests. Flying at low altitudes has the potential for adverse effects to nesting snail kites.

Amazon concurs. There are no plans to fly over the Grassy Waters Preserve. If a business case emerges that requires overflight of the Grassy Waters Preserve, Amazon will consult to mitigate impacts to the lowest level.

2. The Service recommends implementing avoidance of flying over or through the Water Conservation Area 2 A and B within Broward County. This area has a historical high density of Everglades snail kite nests.

3. ***Amazon concurs. There are no plans to fly over WCA 2 A/B. If a business case emerges that requires overflight of WCA 2 A/B, Amazon will consult to mitigate impacts to the lowest level.***

4. The Service recommends implementing a 2,500-foot buffer around all known wood stork nesting colonies found within the six operational areas. The Service can assist with providing the locations of these colonies, if needed.

Amazon concurs where practicable. Amazon requests the most recent locations of Wood Stork nesting colonies, and the coordination of a mechanism to keep these locations updated within our database.

5. The Service recommends that any wildlife collisions be reported within 24 hours to the USFWS Florida Ecological Services Office (352-448-9151) and the Florida Fish and Wildlife Conservation Commission Wildlife Hotline (888-404-3922).

Amazon concurs. Our internal procedures require wildlife strike reporting to the FAA at all Prime Air sites. Local procedures in Florida will require reporting within 24 hours to the USFWS Florida Ecological Services Office and the Florida Fish and Wildlife Conservation Commission Wildlife Hotline.

6. The Service recommends implementing a minimum flying height of 300 feet above ground level at all times unless ascending or descending for takeoffs or landings, to reduce the potential interactions with Florida bonneted bats and tricolored bats.

Amazon does not concur. This is not possible with Prime Air's current drone model and flight planning system. The drone will fly enroute between roughly 200' and 380' above ground level. Amazon will take this into consideration for future updates.

7. The Service recommends that all drones have proximity sensors installed that will be able to initiate avoidance procedures if flying wildlife (birds or bats) are within the flight path of the drone.

Amazon does not concur. This technology does not exist yet. Amazon will continue to advance our collision avoidance technology with this goal in mind.

8. The Service recommends that drone landings or deliveries not be undertaken on nesting sea turtle beaches or during the winter migratory bird season to reduce potential effects to nesting sea turtles, piping plovers and red knots.

Amazon concurs. No deliveries or planned landings will be conducted to any beaches at any time.

9. Is the issuance of the permit/license include future modifications or will those be considered for Section 7 reinitiation when modifications are applied for by the applicant?

Modifications will be considered for reinitiation per FAA requirements.

10. The Service recommends avoidance of flying over the TECO Big Bend Manatee Warm Water Aggregation Area. Low altitude drone flights have been known to startle and disturb manatees.

Amazon concurs.