

DEPARTMENT OF THE ARMY

U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT 701 SAN MARCO BOULEVARD JACKSONVILLE, FLORIDA 32207-8175

December 3rd, 2024

Regulatory Division North Branch Cocoa Permits Section

PUBLIC NOTICE

Permit Application No. SAJ-2024-02405 (SP-JAZ)

TO WHOM IT MAY CONCERN: The Jacksonville District of the U.S. Army Corps of Engineers (Corps) has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344) as described below.

If you are interested in receiving additional project drawings associated with this public notice, please send an e-mail to the project manager by electronic mail at jacob.a.zehnder@usace.army.mil.

APPLICANT: Space Florida

Attn: Peter Eggert

505 Odyssey Way, Ste 300 Exploration Park, FL 32953

WATERWAY AND LOCATION: The project would affect aquatic resources associated with the North Banana River (HUC12 030802020101 (Upper Banana River)). The project site is located on Cape Canaveral Space Force Station (CCSFS), Launch Complex 20 in Section 6, Township 23S, Range 38E.

APPROXIMATE CENTRAL COORDINATES: Latitude 28.515408°

Longitude -80.560289°

PROJECT PURPOSE:

Basic: Construction of a launch pad.

Overall: Construction of a launch pad to support commercial small-lift vehicles as part of Space Florida's CCS Master Plan.

EXISTING CONDITIONS: The wetland system consists of a freshwater system. The onsite vegetation consists of sand cordgrass (*Spartina bakerii*), saw palmetto (*Serenoa repens*), groundsel tree (*Baccharis halimifolia*), wax myrtle (*Myrica cerifera*), solidago (*Solidago* sp.), yaupon holly (*Ilex vomitoria*), spurred butterfly pea (*Centrosema virginianum*), sea-oxeye-daisy (*Borrichia arborescens*), marsh elder (*Iva frutescens*), and glasswort (*Salicornia maritima*). The existing area surrounding the project area

consists of scrub habitat with two launch pads to the north and south, and a coastal dune system to the east adjacent to the Atlantic Ocean.

PROPOSED WORK: The applicant seeks authorization to place fill in 0.95 acres of palustrine wetlands to develop a new launch pad on 12.26 acres of property.

AVOIDANCE AND MINIMIZATION INFORMATION – The applicant has provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment:

"Project site was shifted to the west to avoid the majority of Wetland A. Explosive safety requirements from SLC-20 Pads A and B strongly influenced the siting of the project in the North South orientation."

COMPENSATORY MITIGATION – The applicant has offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment:

"A total of 0.86 herbaceous mitigation credits will be used from the excess credits generated from the *Shuttle Landing Facility Stormwater Management System Modifications Wetland Mitigation Plan* authorized under SJRWMD Permit No. 16630-10 and USACE Permit No. SAJ-2013-02549." This mitigation is to cover both the primary fill impacts and secondary impacts within a 200 ft. buffer.

CULTURAL RESOURCES: The Corps is aware of recorded historic resources within or adjacent to the permit area and is evaluating the undertaking for effects to historic properties as required under Section 106 of the National Historic Preservation Act. This public notice serves to inform the public of the proposed undertaking and invites comments including those from local, State, and Federal government Agencies with respect to historic resources. Our final determination relative to historic resource impacts may be subject to additional coordination with the State Historic Preservation Officer, those federally recognized tribes with concerns in Florida and the Permit Area, and other interested parties.

ENDANGERED SPECIES: Based on a Regulatory Screening Tool (RST) report performed on 17 September 2024, the following species may occur in the vicinity of the project area: Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), Green Sea Turtle (*Chelonia mydas*), Loggerhead Sea Turtle (*Caretta caretta*), Leatherback Sea Turtle (*Dermochelys coriacea*), Kemp's Ridley Sea Turtle (*Lepidochelys kempii*), Hawksbill Sea Turtle (*Eretmochelys imbricata*), Giant Manta Ray (*Mobula birostris*), North Atlantic Right Whale (*Eubalaena glacialis*), Smalltooth Sawfish (*Pristis pectinata*), Audubon's Crested caracara (*Caracara plancus audubonii*), Carter's Mustard (*Warea carteri*), Eastern Black Rail (*Laterallus jamaicensis* ssp. *jamaicensis*), Eastern Indigo Snake (*Drymarchon couperi*), Everglade Snail Kite (*Rostrhamus sociabilis plumbeus*), Florida Scrub Jay (*Aphelocoma coerulescens*), Lewton's Polygala (*Polygala lewtonii*), Piping

Plover (Charadrius melodus), Rufa Red Knot (*Calidris canutus rufa*), Southeastern Beach Mouse (*Peromyscus polionotus niveiventris*), Tricolored bat (*Perimyotis subflavus*), West Indian Manatee (*Trichechus manatus*), and Wood Stork (*Mycteria americana*). The Corps has reviewed the limits of the noise associated with rocket launches which may startle listed species. This threshold is 105-dBA (decibels) and may occur up to 1.5 miles away from the launch pad.

The U.S. Army Corps of Engineers (Corps) has determined the project will have "No Effect" on the following species due to a lack of suitable habitat being affected: Atlantic sturgeon, Audubon's Crested caracara, Carter's mustard, Eastern Black Rail, Everglade Snail Kite, Giant Manta Ray, Lewton's polygala, North Atlantic Right Whale, Smalltooth Sawfish, and West Indian Manatee.

Eastern Indigo Snake: The Corps completed an evaluation of the project based upon the U.S. Fish and Wildlife Service (FWS) North Florida Ecological Services Field Offices Consultation Key for the Eastern Indigo Snake (January 2010, amended August 2013). Use of the Key resulted in the following sequential determination: A (Project is not located in open water or salt marsh) > B (Permit will be conditioned for *Standard Protection Measures*) > C (There are gopher tortoise burrows, holes, etc. where a snake could be buried or trapped and injured) > D (The project will impact less than 25 acres of xeric habitat (scrub, sandhill, or scrubby flatwoods) or less than 25 active and inactive gopher tortoise burrows) > E (Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be evacuated prior to site manipulation in the vicinity of the burrow. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity...) = "May affect, not likely to adversely affect". No further consultation was required.

Florida Scrub Jay: Jays require open scrub habitats dominated by scrub oak species. The project area contains 11.31 acres of oak-dominated coastal scrub habitat. Due to a lack of semi-frequent low-intensity fires over the last 20 years the scrub habitat is considered of moderate importance because it is overgrown. Scrub-jay groups have been identified in the vicinity of the project area with several individuals observed adjacent to the project site. The proposed location is between two existing launch pads with a cadence of 24 launches per year, and the proposed cadence of the new launch pad would also be 24 launches per year, doubling the total annual cadence to 48 launches between the three pads. The proposed operations at SLC-20C would also have indirect impacts resulting from a minor increase in traffic in the vicinity of scrub-jay habitat and thus create the opportunity for a take due to road-kill mortality, in addition to the disturbance caused by rocket launches. Space Florida will be required to provide habitat restoration at a 2:1 ratio on CCSFS as mitigation for habitat impacts resulting from the project. Space Florida will coordinate with SLD45 and USFWS to determine the location of habitat restoration. Because of the potential for an indirect take of scrubjays as noted above, the Corps has determined the proposed project "May Affect, Not Likely to Adversely Affect" the Florida scrub-jay and will seek the concurrence of U.S. Fish and Wildlife Service.

Piping plover: Plovers are a shorebird that nests and feeds along coastal sand and gravel beaches in North America. They forage for food on beaches, moving across in short bursts around the high-tide wrack zone. The piping plover does have the potential to occur on Brevard beaches during the nonbreeding season (July to March) and has been documented on CCSFS. As such, individuals foraging along the shoreline could occur within the action area, which is defined by the 105-dBA noise limits. Indirect impacts to the species foraging and loafing behavior may occur due to the noise created during launches. Therefore, the Corps has determined the proposed project "May Affect, Not Likely to Adversely Affect" the Piping Plover and will seek the concurrence of U.S. Fish and Wildlife Service.

Rufa red knot: Red Knots are a shorebird that breeds in Arctic Circle and it is an occasional visitor along the Florida Atlantic seashore during its annual migration. This species has been observed on CCSFS. As a result, individuals foraging along the shoreline could occur within the action area, which is defined by the 105-dBA noise limits. Indirect impacts to the species foraging and loafing behavior may occur due to the noise created during launches. Therefore, the Corps has determined the proposed project "May Affect, Not Likely to Adversely Affect" the Red Knot and will seek the concurrence of U.S. Fish and Wildlife Service.

Sea turtles: Green Sea Turtle, Loggerhead Sea Turtle, Leatherback Sea Turtle, Kemp's Ridley Sea Turtle, and Hawksbill Sea Turtle occur in the action area and may utilize the adjacent beach habitat for nesting. No night lighting is proposed during the construction activities and therefore these are not expected to affect the sea turtles, nor the indirect impacts from the heat plume during launches. But when night launches are scheduled during nesting and hatchling season, the pads may be lit in addition to the bright light and noise from rocket engines. Bright lights and/or loud noises are known to potentially disrupt nesting females and may cause them to abandon digging the nest cavity or interrupt the egg laying process. Noise associated with rocket launches may startle this species within the Action Area (limits of the 105-dBA noise). Bright lights may disrupt nesting females or disorient recently emerged hatchlings and cause them to move west towards the launchpad rather than east towards open water. USFWS has previously analyzed the effects of facility lighting adjacent to nesting marine turtle habitat at CCSFS. The applicant will implement all reasonable and prudent measures and terms and conditions of the 2008 Programmatic Light Management Biological Opinion (USFWS Log: 41910-2009-F-0087). USFWS has concurred that implementation of all terms and conditions of the 2008 Biological Opinion will not jeopardize the continued existence of nesting marine turtles. As a result, the U.S. Army Corps of Engineers (Corps) has determined the project "May Affect, Not Likely to Adversely Affect" the five species.

Southeastern Beach Mouse: Studies conducted in the vicinity of Launch Complex-40 (~4.0 miles to the north) indicate a large and healthy population of beach mice residing in coastal dune/strand and disturbed oak scrub communities in this area.

Further research has shown that beach mice are located in interior oak scrub sites, as well as buildings. Beach mice were captured inside the SLC-20 blockhouse (Facility 18800) in 2001 and have been detected east of SLC-20 in dunal areas from 2010 to 2017 but were not detected during a 2018 occupancy survey. A Biological Opinion and take for this species were previously issued in 2020 in response to the 2019 SLC-20 BA and 2020 SLC-20 EA (USFWS Log: USFWS 04EF1000-2020-F-0288). Construction and operations will occur approximately 500 feet west of the dunes, the typical habitat of the southeastern beach mouse. However, the project will not result in the clearing of beach dune habitat and is limited to clearing 11.31 acres of coastal scrub which may be utilized by the mice. This species may benefit from the approximately 22 acres of habitat restoration that will occur, if located near their primary dune habitat, as mitigation for impacts to the Florida scrub-jay. The applicant will also be required to provide habitat restoration at a 1:1 ratio on CCSFS as mitigation for beach mouse habitat impacts resulting from the project. Potential noise-related effects to the southeastern beach mouse during construction activities would include disruption of normal activities due to noise and ground disturbances. Noise associated with rocket launches may startle this species within the Action Area (limits of the 105-dBA noise). The proposed operations at SLC-20 would also result in a minor traffic increase in the vicinity of the beach mouse habitat and there is the possibility of a take due to road-kill mortality. In addition, night operations that will require lighting have the potential to increase predation of this species and negatively impact forage activities and efficiency in the vicinity of SLC-20. The applicant will implement all reasonable and prudent measures and terms and conditions of the 2008 Programmatic Light Management Biological Opinion (USFWS Log: 41910-2009-F-0087). Due to the potential for indirect impacts resulting from traffic, noise, and light, the Corps has determined that the proposed project "May Affect, Not Likely to Adversely Affect" the southeastern beach mouse and seeks the Service's concurrence.

Tricolored Bat: In the southern United States where caves are sparse, these bats are often found roosting in road-associated culverts where they exhibit shorter torpor bouts and forage during warm nights. During the spring, summer, and fall, the bats are found in forested habitats where they roost in trees, primarily among leaves of live or recently dead deciduous hardwood trees. They may also be found in Spanish moss, pine trees, and occasionally manmade structures. These bats forage over canopy openings and water such as agricultural fields and streams. This species has been documented through the use of sonic detectors at CCSFS and may occur within the Action Area due to the presence of suitable habitat and suitable foraging habitat. The applicant is proposing two Conservation Measures: 1. Avoid tree clearing May through July 15 to minimize impacts during bat maternity season, and 2. Avoid tree clearing when ambient day time temperatures are 45°F or below. With the inclusion of the proposed Conservation Measures, the Corps has determined that the proposed project "May Affect, Not Likely to Adversely Affect" the Tricolored Bat and seeks the Service's concurrence.

Wood Stork: The Corps completed an evaluation of the project based upon the U.S. Fish and Wildlife Service (FWS) North Florida Ecological Services Field Offices Programmatic Concurrence for use with the Wood Stork (September 2008). Use of the Key for Wood Stork resulted in the following sequential determination: A (The project is more than 2,500 feet from a colony site.) > B (Project impacts SFH.) > C (Project impacts to SFH are greater than or equal to 0.5 acres.) > D (Project impacts to SFH not within a Core Foraging of a colony site, and no wood storks have been documented foraging on site) = "May affect, not likely to adversely affect". The Corps has FWS concurrence for the proposed activities through the use of the aforementioned determination key. No mitigation is required.

ESSENTIAL FISH HABITAT (EFH): This notice initiates consultation with the National Marine Fisheries Service on EFH as required by the Magnuson-Stevens Fishery Conservation and Management Act 1996. No Essential Fish Habitat is present within the project area, therefore our initial determination is that the proposed action would have no adverse impact on EFH or Federally managed fisheries in the South Atlantic region. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

NAVIGATION: The proposed activity is not located in the vicinity of a federal navigation channel.

SECTION 408: The applicant will not require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because the activity, in whole or in part, would not alter, occupy, or use a Corps Civil Works project.

NOTE: This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the regulatory program. The jurisdictional line has not been verified by Corps personnel.

COMMENTS regarding the potential authorization of the work proposed should be submitted in writing to the attention of the District Engineer through the Cocoa Permits Section, 400 High Point Drive, Suite 600, Cocoa, FL 32926 within 21 days from the date of this notice.

The decision whether to issue or deny this permit application will be based on the information received from this public notice and the evaluation of the probable impact to the associated wetlands. This is based on an analysis of the applicant's avoidance and minimization efforts for the project, as well as the compensatory mitigation proposed.

QUESTIONS concerning this application should be directed to the project manager, Jacob Zehnder, in writing at the Cocoa Permits Section, 400 High Point Drive, Suite

600, Cocoa, FL 32926; by electronic mail at jacob.a.zehnder@usace.army.mil; by facsimile transmission at (321)504-3803; or, by telephone at 321-504-3771 ext. 0017.

IMPACT ON NATURAL RESOURCES: Coordination with U.S. Fish and Wildlife Service, Environmental Protection Agency (EPA), the National Marine Fisheries Services, and other Federal, State, and local agencies, environmental groups, and concerned citizens generally yields pertinent environmental information that is instrumental in determining the impact the proposed action will have on the natural resources of the area.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including cumulative impacts thereof; among these are conservation, economics, esthetics, general environmental concerns, wetlands, historical properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food, and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

Evaluation of the impact of the activity on the public interest will also include application of the guidelines promulgated by the Administrator, EPA, under authority of Section 404(b) of the Clean Water Act.

The US Army Corps of Engineers (Corps) is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other Interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this determination, comments are used to assess impacts to endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

WATER QUALITY CERTIFICATION: Water Quality Certification is required from the St. Johns River Water Management District. The project is being reviewed under SJRWMD application no. 226098-1.

COASTAL ZONE MANAGEMENT CONSISTENCY: In Florida, the State approval constitutes compliance with the approved Coastal Zone Management Plan. In Puerto Rico, a Coastal Zone Management Consistency Concurrence is required from the Puerto Rico Planning Board. In the Virgin Islands, the Department of Planning and

Natural Resources permit constitutes compliance with the Coastal Zone Management Plan.

REQUEST FOR PUBLIC HEARING: Any person may request a public hearing. The request must be submitted in writing to the District Engineer within the designated comment period of the notice and must state the specific reasons for requesting the public hearing.

NEW CONSTRUCTION DESCRIPTION OF WORK

BUILDING DATA

SITE DATA

REAL PROPERTY LICENSE PARCEL ID: SPACE LAUNCH COMPLEX 20

FLOOD ZONE:

ZONE AE (BFE: 9) (FEMA FIRM PANEL 12008C0270H PARCEL SIZE: 214.TAC

ORANAGE BASIN 15,08 ACRES

42 ACRES

PROPERTY LEGAL DESCRIPTION

SPACE FLORIDA

PROJECT CONTACTS

GENERAL NOTES



PROJECT VICINITY MAP



CIVIL DRAWING INDEX

SECTIONS SITE DETAILS DRAINAGE DETAILS

DEMOLITION PLAN - SOUTH
DEMOLITION PLAN - NORTH
MASTER PLAN CONCEPT - (FINAL BUILD-OUT) OVERALL PAVING, GRADING & DRAINAGE PLAN
PAVING, GRADING & DRAINAGE PLAN - SOUTH OVERALL EROSION & SEDIVENTATION CONTROL PLAN



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SLC-20C PAD SITEWORK CAPE CANAVERAL SPACEPORT, FLORIDA SPACE FLORIDA



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06/02/2023 **COVER SHEET**

G-001

ENGINEERS & CONSULTANTS

SURVEY
LAND 8 SEA SURVEYING CONCEPTS INC.
1605 CHARE HAMBOOK PD.
MERRITT ISLAND, PL 20693
TIME, DRILLE, PLLS.
321-164-9310

GEOTECHNICH, ARDAMAN & ASSOCIATES, INC. 8008 S, CRANGE AVENUE





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06/02/2023

WETLAND IMPACT PLAN

C-100

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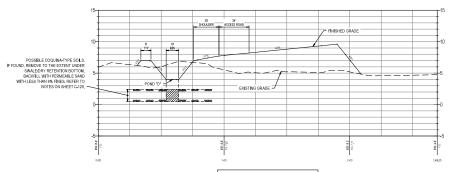
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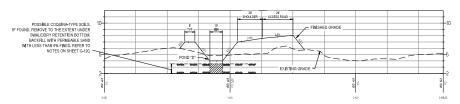
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C-401

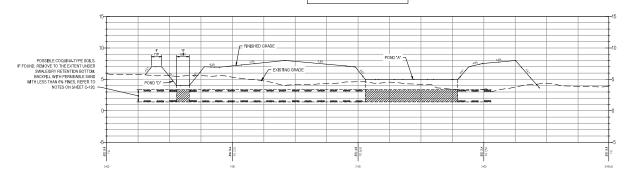
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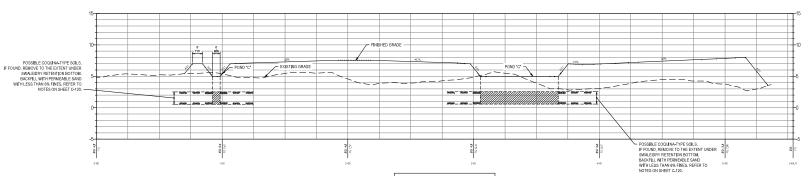
SITE SECTION A PROFILE



SITE SECTION B PROFILE



SITE SECTION C PROFILE



SITE SECTION D PROFILE

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