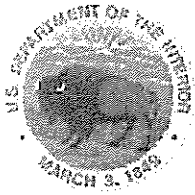


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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Merritt Island National Wildlife Refuge

P.O. Box 2683

Titusville, Florida 32781-2683

(321) 861-0667, (321) 861-1276 FAX



In Reply Refer To:
FWS/R4/RF/Area II

18 December 2014

Dave Navecky
Surface Transportation Board
U.S. Department of Transportation
395 E Street, SW
Washington, DC 20423-0001
Attention: Environmental Filing, Docket No. FD 35852
Delivered via email: David.Navecky@stb.dot.gov

Re: Public Scoping Comments regarding Docket No. FD 35852, Canaveral Port Authority –
Petition to Construct and Operate a Rail Line Extension to Port Canaveral, FL

Dear Mr. Navecky:

The U.S. Fish and Wildlife Service (Service) appreciates the opportunity to provide scoping comments to the Surface Transportation Board (STB) on the proposal by the Canaveral Port Authority (CPA) to create a rail line extension to connect the Port of Canaveral to the existing rail line at the National Aeronautics and Space Administration's (NASA's) Kennedy Space Center (KSC)/Merritt Island National Wildlife Refuge (MINWR) and to conduct operations along the entire length. The Service and NASA work very closely together at KSC/MINWR.

Comments and concerns of the Service are provided regarding: candidate, threatened, and endangered species; migratory birds, including bald eagles; other species of management concern; Banana River Lagoon, wetlands, water quality, and fisheries resources; MINWR management, including fire management and visitor services; cultural resources; accidents and catastrophic events; and other concerns.

CANDIDATE, THREATENED, AND ENDANGERED SPECIES

Merritt Island NWR supports numerous federally-listed species. Related to the proposal, the Service has concerns related to seven federal candidate, threatened, and endangered species: gopher tortoise (*Gopherus polyphemus*, candidate), Florida scrub-jay (*Aphelocoma coerulescens*, threatened), eastern indigo snake (*Drymarchon corais couperi*, threatened), wood stork (*Mycteria americana*, threatened), loggerhead sea turtle (*Caretta caretta*, threatened), green sea turtle (*Chelonia mydas*, endangered), and West Indian manatee (*Trichechus manatus*, endangered). Although not regularly occurring on MINWR, additional

federally-listed species could occur in the area and could be impacted by the proposal, including Atlantic saltmarsh snake (*Nerodia clarkia taeniata*, threatened), smalltooth sawfish (*Pristis pectinata*, endangered), shortnose sturgeon (*Acipenser brevirostrum*, endangered), and Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*, endangered). The EIS should include analysis of impacts to these species and their habitats.

Gopher Tortoise

Designated a candidate for listing under the Endangered Species Act and listed by the State of Florida as threatened, the gopher tortoise (*Gopherus polyphemus*) has a high ecological value as a keystone species, which means that many other wildlife species benefit from the gopher tortoise's presence and abundance within the ecosystem. More than 300 species have been known to use gopher tortoise burrows, including federally and State-listed species such as eastern indigo snake, Florida pine snake, and gopher frog. Surveys conducted in 2013 estimated MINWR's gopher tortoise population at 3,000 to 5,000. Gopher tortoises occur throughout the proposal area.

Gopher tortoises have a well-defined activity range limited by the amount of herbaceous ground cover where all feeding and reproduction take place (Auffenberg and Iverson 1979). Gopher tortoises are herbivores, eating mainly grasses, plants, fallen flowers, fruits, and leaves. Gopher tortoises prefer grassy, open-canopy microhabitats (Boglioli et al. 2000), and their population density directly relates to the density of herbaceous biomass (Auffenberg and Iverson 1979, Landers and Speake 1980, Wright 1982, Stewart et al. 1993) and a lack of canopy (Breininger et al. 1994, Boglioli et al. 2000).

The regular application of prescribed burning is critical for the maintenance of habitat conditions preferred by the gopher tortoise. Prescribed burning reduces shrub and hardwood encroachment and stimulates growth of gopher tortoise forage plants, such as grasses, forbs, and legumes. This allows great sunlight penetration to reach ground level, which promotes establishment of understory foliage used by the species as forage. Fire also promotes conditions necessary for gopher tortoise egg incubation. Any development in gopher tortoise habitat that limits prescribed burning represents a serious threat to gopher tortoise populations and their habitat. Consequently, maintaining habitat conditions preferred by gopher tortoises requires a commitment to plan and initiate vegetation management practices.

Disease can greatly impact the health and population demographics of wildlife. The effects of disease can be increased or confounded when populations are fragmented or stressed by human activity. Gopher tortoises are known to be subject to several diseases that potentially affect their well-being and survival (e.g., mycoplasmal upper respiratory tract disease, iridovirus, and herpesvirus). Relocation could be one of the mechanisms by which ill tortoises are introduced and trigger an epizootic. Some studies have indicated that previously exposed captive tortoises became ill more quickly when re-exposed (McLaughlin 1997).

The Service is concerned that the proposal may have negative impacts to fire management activities to maintain appropriate habitat conditions for this species. Further, any gopher tortoises displaced from a development site must be relocated in accordance with federal and

State permitting guidelines. Details on Florida State guidelines can be found in the Florida Fish and Wildlife Conservation Commission's Gopher Tortoise Management Plan at: <http://myfwc.com/media/2286685/GT-Management-Plan.pdf>. Since gopher tortoise burrows are critical habitat for many commensal species, relocation of these associated species needs to be part of any plan to relocate gopher tortoises whose burrows are impacted by construction and development activities. Due to the risk of disease transmission, any permitted person engage in research or relocation activities should follow approved disinfection and sanitation protocols when conducting such activities. In the case that infected gopher tortoises are encountered, an approved protocol for accommodating clinically ill tortoises must be followed. In general, the Service would work with CPA to develop a movement plan for any gopher tortoises and/or burrows and any associated species to be moved. Further, mitigation measures would need to be developed, including addressing gopher tortoises getting stuck between the rails.

Florida Scrub-jay

Federally listed as threatened, the Florida scrub-jay (*Aphelocoma coerulescens*) is a cooperative breeding passerine endemic to Florida. The species was listed in 1987 in response to range-wide population declines resulting from habitat conversion and fragmentation caused by agricultural and urban development and degradation of undeveloped habitat as a result of fire suppression and exclusion. It is estimated that Florida scrub-jay populations have decline by more than 90 percent since European settlement (Boughton and Bowman 2011). Even on public conservation lands where habitat has been actively managed for scrub-jays, populations have declined 26 percent between 1993 and 2011 (Boughton and Bowman 2011).

The MINWR supports one of the largest populations of scrub-jays and is of critical importance to the long-term survival of the species. Scrub-jays can be found in areas of suitable habitat throughout MINWR, but are primarily concentrated in four core areas, which contain the best scrub-jay habitat and support at least 216 families or nearly 90 percent of the MINWR's known scrub-jay population. The proposal could impact the Southern Woodlands Scrub Reserve Unit (SRU), Swartz Road SRU, Happy Creek SRU, and connecting corridors. These three SRUs plus Burn Unit 3.2D host 165 families. Due to previous, ongoing, and planned habitat restoration and management, these core areas have the potential to support 270 scrub-jay families.

The MINWR's most important management tool for restoring and maintaining Florida scrub-jay habitat is prescribed fire. The Service is concerned that MINWR's ability to conduct prescribed burns may be impacted by the proposed construction, operation, and maintenance activities. This is of critical concern since the proposed project directly impacts the burn units containing 50 percent of the MINWR's Florida scrub-jay population.

Eastern Indigo Snake

Federally listed as threatened, the eastern indigo snake (*Drymarchon corais couperi*) is a habitat generalist, using diverse habitats, such as pine flatwoods, scrubby flatwoods, floodplain edges, sand ridges, dry glades, tropical hammocks, edges of freshwater marshes, coastal

dunes, and xeric sandhill communities (U.S. Fish and Wildlife Service 1999). The eastern indigo snake ranges over large areas and uses various habitats, including agricultural lands and various wetlands, throughout the year with most activity occurring in the summer and fall (Smith 1987). Females have been known to use 371 acres, while males use 805 acres (Smith 2003). The eastern indigo snake frequently uses gopher tortoise burrows. The entire length of the proposed rail development on the terrestrial portion of MINWR is occupied by eastern indigo snakes.

The Service is concerned that construction, operation, and maintenance activities could impact the eastern indigo snake, including direct mortality; the Service recommends that CPA and STB review and incorporate the Service's Standard Protection Measures for the Eastern Indigo Snake

(https://www.fws.gov/northflorida/IndigoSnakes/20130812_EIS%20Standard%20Protection%20Measures_final.pdf) to minimize potential harm to the species.

Wood Stork

Federally listed as threatened, the wood stork (*Mycteria americana*) uses various wetlands for foraging and uses mangroves and other woody vegetation for nesting. The proposal is within the core foraging area (15-mile radius) of at least two active wood stork colonies. The impoundments, restored salt marshes, interior wetlands, and lagoons on and near MINWR provide a wide range of foraging opportunities and ample sites for nesting for wood storks. Historically, wood stork nesting occurred on several of MINWR's mangrove islands, but the rookeries were abandoned in the late 1980s due to habitat changes that resulted from freezing temperatures. One of the objectives in the MINWR Comprehensive Conservation plan is to re-establish wood stork nesting.

The Service is concerned that construction, operation, and maintenance of the proposal could alter current wood stork feeding and resting activities.

Loggerhead and Green Sea Turtles

The loggerhead sea turtle (*Caretta caretta*) is federally listed as threatened and the green sea turtle (*Chelonia mydas*) is federally listed as endangered. The Banana River Lagoon is an important wintering area for juvenile sea turtles.

The Service is concerned that the proposed construction, operation, and maintenance of the proposed rail line over the Banana River Lagoon could directly and indirectly impact sea turtle foraging habitat and prey.

West Indian Manatee

Federally listed as endangered and protected under the Marine Mammal Protection Act, the West Indian manatee (*Trichechus manatus*) is found throughout peninsular Florida in fresh, brackish, and marine waters. The Florida subspecies, *Trichechus manatus latirostris*, can be found in most of the Lagoon system on MINWR, including Banana River Lagoon and Indian River Lagoon over which the proposal would cross. Turbid waters and other visibility limitations prevent consistent population estimates, but the accepted estimate for the entire

population of the species is approximately 4,800 individuals with some 1,100 using the estuaries of the MINWR during the winter (Florida Fish and Wildlife Conservation Commission 2013). The manatee's diet consists of submerged, emergent, and floating vegetation, with seagrass as the most common plant consumed by coastal populations (U.S. Fish and Wildlife Service 2001). There are approximately 50,000 acres of estuarine habitat on the MINWR with 27,000 acres of seagrass (U.S. Fish and Wildlife Service 2007). However, algal blooms in 2011 and 2012 reduced seagrass coverage by 60 percent in the Indian River Lagoon, including on MINWR (St. Johns River Water Management District 2013a).

The Service is concerned about seagrass impacts of the proposal in the Banana River Lagoon. Since the seagrass community in the Indian River Lagoon system has experienced dramatic declines in recent years, the stressed environment is susceptible to the added impacts in these important waters represented by the proposal, including the impacts associated with the proposed causeway and with spills or other accidents during construction, operation, and maintenance activities. The STB and CPA should consider measures to avoid impacts to wetlands for the conservation of the manatee. For construction activities that would occur within waters accessible to manatees, the Service recommends that STB and CPA review and incorporate the Service's Standard Manatee Conditions for In-water Work (https://www.fws.gov/northflorida/Manatee/Manatee_Key_Programmatic/20130425_gd_Appendix%20B_2011_Standard%20Manatee%20Construction%20Conditions.pdf) in plans for the construction, operation, and maintenance of the proposal to minimize the potential for harm and/or harassment to the manatees. Further, STB and CPA should work with the Service to explore measures to minimize impacts to manatees of all activities associated with construction, operation, and maintenance of the proposal.

MIGRATORY BIRDS

The Service is the principal Federal agency with oversight for the 1,026 avian species identified and protected under the Migratory Bird Treaty Act (50 CFR §10.13). These include individuals that are residing, breeding, overwintering, migrating, staging, roosting, feeding, resting, and otherwise moving through the area associated with the proposal on a daily, seasonal, annual, or other periodic basis. The Birds of Conservation Concern (BCC) is a set of lists generated by the Service that justify and present migratory birds of high conservation priority at a variety of spatial scales (e.g., national, regional, and ecoregional). The Service periodically updates and published its BCC lists. The most recent BCC lists were revised in 2008 and can be found at: <http://digitalmedia.fws.gov/cdm/fullbrowser/collection/document/id/1249/rv/singleitem/rec/2>. The BCC includes a list of bird species of conservation concern for Bird Conservation Region (BCR) 31 Peninsular Florida, as well as for the Service's Southeast Region and for the nation. The species identified on these lists are considered vulnerable and are among the highest bird conservation priorities for the Service and its partners. Many of these species are experiencing widespread declines and could potentially become candidates for federal listing under the Endangered Species Act in the future. The Service is responsible on an annual basis for demonstrating explicit progress in advancing the conservation of these species as a component of the Service's overall fiscal accountability and performance metrics. Therefore, it

is particularly important to the Service that the STB fully consider and evaluate impacts to BCC species when assessing impacts, including cumulative impacts, of the proposal that can reasonably be expected to influence individuals, populations, habitats, behaviors, and demographics of these species. The BCC lists for BCR 31 Peninsular Florida includes 49 species. However, additional data are needed to determine which bird species specifically utilize the proposed project area, how and when they use the area, the specific threats, and the manner in which the populations of the most vulnerable species might be impacted. These data will assist in determining the effect of the proposal on all federally protected migratory birds, particularly those where concern exists regarding their long-term viability.

The Service recommends that STB comprehensively assess the potential risks to all bird species, particularly those identified on relevant BCC lists, which are documented or suspected to occur in the proposal's project area or which could be impacted by the proposal.

Bald Eagles

The EIS should describe the disturbances to bald eagle nesting sites due to construction, operation, and maintenance activities associated with the proposal.

Bald Eagle Nest Surveys

The State of Florida Fish and Wildlife Conservation Commission (FWC) maintains a State database of all documented bald eagle nests across the State. Not all nests are documented and ground truthing the proposed sites is advised. Aerial survey coverage of the project areas and up to a ½-mile buffer is best to ensure nests are accounted for prior to commencing any tree clearing and to determine appropriate disturbance buffers for construction, operation, and maintenance activities. The survey should be conducted by experienced personnel while territories are active. December to March is the appropriate time to establish nest activity status in Florida. The general nesting season dates are October 1- May 15. Bald eagle nest surveys to support the EIS should include the entire project site and associated facilities, plus a 660-foot buffer for all construction activities, plus a ½-mile buffer for all areas where activities would produce significant audible disturbance (noise). Please report survey results to the FWC so it can update the database, as well as to Merritt Island NWR. Records can be emailed directly to baldeagle@myfwc.com and Mike.Legare@fws.gov.

Bald Eagle Management Guidelines to Avoid and Minimize Take

The National Bald Eagle Management Guidelines and State Bald Eagle Management Guidelines prescribe measures to help project proponents avoid and minimize the potential for take, including disturbance. Bald eagles and their nests are protected under the Bald and Golden Eagle Protection Act (BGEPA), as well as under 68A-16.002, Florida Administrative Code. Typical construction buffers are 660 feet from the nest, while blasting and other loud and intermittent noises are up to ½-mile, unless a greater tolerance has been demonstrated. This means that if any activities are being proposed closer than the recommended buffers, then they fall outside of the scope of the State and federal eagle management guidelines and a permit would be recommended. State and federal guidelines are found at:

http://www.myfwc.com/media/427567/Eagle_Plan_April_2008.pdf and <https://www.fws.gov/southeast/birds/Eagle/NationalBaldEagleManagementGuidelines.pdf>, respectively. The EIS should outline all proposed activities occurring within the ½-mile distance for all proposed construction, operation, and maintenance activities and the 660-foot distance for all proposed construction activities related to operations. All impacts of proposed construction, operation, and maintenance activities must be analyzed for impacts to bald eagles using the ½-mile and 660-foot buffers, as referenced in the National Bald Eagle Management Guidelines.

OTHER SPECIES OF MANAGEMENT CONCERN

The Service would also have concerns related to the proposal for a variety of other species of management concern listed by the State of Florida, including: Florida mouse [*Peromyscus floridanus*, State of Florida Species of Special Concern (SSC)], gopher frog (*Rana capito*, State of Florida SSC), Florida pine snake (*Pituophis melanoleucus mugitus*, State of Florida SSC), and Curtis' sandgrass (*Calamovilfa curtissii*, State of Florida Threatened). The EIS should include analysis of impacts to these species.

Florida Mouse

The Florida mouse (*Peromyscus floridanus*) is listed by the State of Florida as a SSC, is endemic to peninsular Florida, occupies fire maintained xeric uplands with well-drained soils, and has been documented on MINWR. It shares similar habitats with the Florida scrub-jay and, at time, occurs commensally with gopher tortoises. No systematic surveys for the Florida mouse have been conducted on MINWR, thus abundance and distribution are unknown. This species could be impacted by the proposal and should be included in the EIS. The application of prescribed fire is needed to properly maintain habitat for this species; any impacts to the ability of MINWR to apply prescribe fire in a timely manner could result in the decline or extirpation of local populations.

Gopher Frog

The gopher frog (*Rana capito*) is listed by the State of Florida as a SSC. It is closely linked to the presence of gopher tortoises and relies extensively on gopher tortoise burrows for shelter and, to some degree, for food (Godley 1992). Moreover, the survival of newly metamorphosed gopher frogs is dependent on their ability to locate and use gopher tortoise burrows and other underground refugia (Roznik and Johnson 2009). This species could be impacted by the proposal and should be included in the EIS. The alteration of hydrology, including the timing and depth of flooding on the natural swale wetlands should be avoided; the natural timing, depth, and seasonality should be maintained.

Florida Pine Snake

The Florida pine snake (*Pituophis melanoleucus mugitus*) is listed by the State of Florida as a SSC. It occupies relatively large, unfragmented blocks of fire-maintained, open canopy, xeric habitats, including sandhill, old fields, pastures, sand pine scrub, and scrubby flatwoods (Franz 1992, Hipes et al. 2001). In addition to the habitat itself, stump holes, active and inactive gopher tortoise burrows, and pocket gopher mounds and burrows are necessary to ensure

adequate underground refugia for this species. Florida pine snakes have relatively large home ranges with an average home range of 173 acres for males and 93 acres for females (Miller 2008). This species could be impacted by the proposal and should be included in the EIS. The creation of a new rail corridor could result in increased mortality of individuals and a negative impact on the species. The application of prescribed fire is needed to properly maintain habitat for this species; any impacts to the ability of MINWR to apply prescribe fire in a timely manner could result in the decline or extirpation of local populations.

Curtis' Sandgrass

Curtis' sandgrass (*Calamovilfa curtissii*, also called Curtiss' sandgrass and Florida sandreed) is listed as Threatened by the State of Florida. It is a Florida endemic found in coastal flatwoods. Dependent on fire to minimize woody vegetation, occurrences of the species have been documented in Brevard, Santa Rose, Okaloosa, Walton, and Bay counties (NatureServe 2014). This species could be impacted by the proposal and should be included in the EIS. The application of prescribed fire is needed to properly maintain habitat for this species; any impacts to the ability of MINWR to apply prescribe fire in a timely manner could result in the decline or extirpation of local populations.

BANANA RIVER LAGOON, WETLANDS, WATER QUALITY, AND FISHERIES RESOURCES

The Service is concerned about potential impacts of the proposal to the Banana River Lagoon, natural and impounded wetlands, water quality, and fisheries resources, which should be included and analyzed in the EIS.

As currently presented, the proposal includes a crossing with a partial causeway and navigation access bridge on the Banana River Lagoon. The Banana River Lagoon is part of the Indian River Lagoon system, which is North America's most diverse estuary with over 685 species of fish, 370 species of birds, 2,100 species of plants, and 2,200 species of animals (St. Johns River Water Management District 2013b). The Indian River Lagoon system was added to the National Estuary Program, which was created by an amendment to the Clean Water Act to identify, restore, and protect nationally significant estuaries in the United States.

The proposal includes a causeway on the Banana River Lagoon. The Service would have several concerns associated with construction, operation, and maintenance of such a causeway, including:

- hydrologic concerns such as flow/circulation and water quality;
- habitat concerns such as habitat loss and fragmentation, as well as seagrasses, benthic communities, and fish spawning and settlement sites;
- concerns regarding wildlife use patterns, recruitment, and migration, including fishes, waterfowl, wading birds, and West Indian manatees;
- concerns for potential increased algal blooms and associated impacts;

- environmental contaminant concerns such as hydrocarbons, oils, and other fluids from the rail cars (e.g., lubricants) and from any cargo; and
- concerns regarding magnification of impacts within the Banana River Lagoon and Indian River Lagoon system.

The Service is concerned about wildlife, habitat, and contaminant issues related to natural and impounded wetlands along the existing and proposed alignments. Further, the Service is also concerned about hydrologic impacts of the proposed new rail alignment as it fragments existing habitat, potentially alters community composition, and potentially alters fish migration between the ocean and lagoon system and with the lagoon system. The hydrology of the affected environment and the surrounding areas is complex. Past road construction, agricultural development, and impoundment construction are believed to have altered much of the hydrology of the freshwater swale wetlands, which are those low areas between the scrub ridges. The drainage canals that currently run from the east to west are believed to serve as drainage for the existing homeowners adjacent to the MINWR to the west. The Service is concerned that proposed rail corridor construction and associated drainage could exacerbate the hydrologic concerns for this area. The Service recommends a full and complete study of the hydrology of the area, including drainage concerns to fully understand the proposed rail beds' impact to the natural swale habitat and to NASA's responsibility to provide drainage for the adjacent landowners through the property. The proximity of the proposed railroad to wetlands that drain into the Banana River Lagoon and the Indian River Lagoon is a concern and the Service recommends a comprehensive evaluation on the potential impact of pollution from the proposed construction on the already compromised habitats of the Indian River Lagoon system.

The Service is also concerned about the impact of the proposed project to fisheries resources, as the Indian River Lagoon system is a valuable commercial and recreational fishery, and the Banana River Lagoon is one of the best fishing destinations on the East Coast of the United States. Red drum (*Sciaenops ocellatus*), black drum (*Pogonias cromis*), sheepshead (*Archosargus probatocephalus*), common snook (*Centropomus undecimalis*), spotted seatrout (*Cynoscion nebulosus*), and crevalle jack (*Caranx hippos*) are some of the best known recreational species found in the northern Indian River Lagoon system. Both red drum and spotted sea trout are the most popular recreational species sought by anglers, as they are present all year around. Tarpon (*Megalops atlanticus*) are occasionally found in the area.

Given the national importance of the Indian River Lagoon system, it is essential that STB analyze and address any adverse and cumulative impacts of the proposal, including addressing the above listed concerns. STB must analyze the corresponding potential impacts on the wide diversity of estuarine-dependent plants and animals found on MINWR and the surrounding area. Of particular concern is the stress that the Banana River Lagoon and Indian River Lagoon system have been experiencing, including algal blooms; loss of sea grass coverage; and manatee, dolphin, and pelican mortality.

MINWR MANAGEMENT

The Service is concerned that the proposal would potentially impact MINWR management activities, including fire management and visitor services. The EIS should include and analyze impacts to MINWR management.

Fire Management

Since the mid-1980s, the Service has conducted fire operations on the MINWR, including wildfire response and prescribed fire. Pursuant to the Service's agreement with NASA for MINWR management at KSC, the Service is responsible for the protection of KSC and MINWR resources, personnel, and visitors from wildland fire. The Service uses prescribed fire at MINWR to reduce hazardous fuel loads and to maintain high quality wildlife habitat. With high numbers of lightning strikes, MINWR/KSC experience frequent wildfires. Currently, MINWR provides wildfire suppression on KSC and CNS, as well as in adjacent communities. Of particular note are the residential areas south and west of the MINWR boundary; the Service regularly protects these areas through hazardous fuels reduction to minimize threats from wildfire and through the suppression of wildfires. MINWR conducts prescribed burns on 15,000 to 20,000 acres annually at various times of the year to mimic natural burn cycles. The average burn frequency to mitigate fuel loads is every three to four years for each fire management unit with annual burns occurring as needed to maintain Florida scrub-jay habitat. From 2004 to 2014, 31 prescribed fires (accounting for 24,819 acres) and 27 wildfires (accounting for 3,878 acres) occurred on MINWR either directly adjacent to the existing and proposed rail alignments or within the burn units through which the existing and proposed rail alignments would pass (for a total of 58 fires from 2004 to 2014 on 28,697 acres adjacent or near the proposal).

The Service conducts prescribed burning on MINWR to reduce hazardous fuels and manage fire-dependent wildlife habitat. The MINWR burning program is frequently restricted by operations at KSC. The EIS and CPA need to recognize that proposed rail operations on MINWR/KSC may be interrupted for periods of time during fire operations, whether prescribed fire or wildfire. The MINWR would develop a notification process for the CPA to inform CPA of fire management activities that may impact rail operations; the potential exists that during specific fire events, whether prescribed fire or wildfire, the CPA may be required to temporarily halt train operations until the Service completed fire management operations and approved the resumption of normal activities. In such cases, the MINWR Fire Management Officer or his/her Service designee would notify the CPA of temporary halts and of subsequent approvals to resume train operations. This authority and notification process would need to be reflected in whatever lease or other management agreement that NASA developed under this proposal for CPA's proposed construction, operation, and maintenance of the existing and proposed rail line.

Also of concern to the Service is the potential for accidental fire starts caused by passing trains. According to Florida Forest Service data, railroad operations resulted in 253 known fires across 3,055 acres Statewide between 2004 and 2014 (Florida Forest Service 2014).

The Service is concerned that proposed rail operations may negatively impact MINWR fire operations, potentially negatively impacting habitat management activities that benefit species such as Florida scrub-jay, eastern indigo snake, and gopher tortoise. The Service urges the STB to analyze, evaluate, and fully consider the potential impacts of construction, operation, and maintenance activities under the proposal on fire management activities, including habitat quality and wildlife, importantly the Florida scrub-jay; hazardous fuels reduction activities; and prescribed fire operations.

Visitor Services

The National Wildlife Refuge System (NWRS) emphasizes connecting people with nature, making visitors feel welcome and safe, and providing visitors with a variety of accessible opportunities to enjoy and appreciate natural resources. The NWRS Improvement Act of 1997 outlined the six priority public uses of the NWRS: hunting, fishing, participating in wildlife observation and photography, and participating in environmental education and interpretation; these wildlife-dependent public uses are to be facilitated, provided they are compatible with the purpose(s) of the NWRS unit.

The Service is concerned that the proposed rail operations would have negative impacts to visitor use and access of MINWR and Canaveral National Seashore's (CNS's) Playalinda District. MINWR hosts over a million annual visitors (~1,195,457 visitors from October 1, 2013 to September 30, 2014); while CNS's Playalinda District hosts nearly a million annual visitors (879,000 from November 1, 2013 to October 30, 2014). The majority of visitor use areas are open only during daylight hours, however the Bairs Cove and Beacon 42 boat ramps are open 24 hours. Additionally, waterfowl hunters are allowed to enter MINWR at 4:00 am on hunt days.

MINWR recreational areas potentially affected by the proposed CPA rail operations would include: Banana River Lagoon, Oak and Palm Hammock trails, Black Point Wildlife Drive, Bio Lab Road, and Mosquito Lagoon access from Eddy Creek Boat Ramp. Visitors access the Banana River Lagoon from KARS Park I, SR 528, and locations south of SR 528; these users would pass under/around the proposed railroad crossing of the Banana River. Users of Oak and Palm Hammock trails cross over the existing rail line by foot. To access Black Point Wildlife Drive from Titusville, visitors must pass through an existing railroad crossing. Users of Bio Lab Road would also pass through one or two existing railroad crossings. To access the Eddy Creek Boat Ramp, visitors would pass through one or two existing railroad crossings; Eddy Creek visitors would be included in the CNS numbers for the Playalinda District. The entrance to the Playalinda District of CNS includes an existing rail crossing; visitors to CNS would pass through one or two existing railroad crossings. Totaling 1,057,830, visitor use annual estimates for these areas are listed; however, this total does not include total visitor use of the Banana River Lagoon, since only the KARS Park kayak access was included.

Table 1. The annual visitation is provided for key public use sites potentially impacted by construction, operation, and maintenance of the proposal; the total does not reflect total visitor use of the Banana River Lagoon

# Visits	Area	Time Period
2,400	KARS Park I kayak access to Banana River Lagoon	July 1, 2013- June 30, 2014
42,992	Oak and Palm Hammock Trails	October 1, 2013- September 30, 2014
97,222	Black Point Wildlife Drive	October 1, 2013- September 30, 2014
36,216	Bio Lab Road	October 1, 2013- September 30, 2014
879,000	Canaveral National Seashore Playalinda District	November 1, 2013- October 30, 2014
1,057,830	Total Annual Visitation to Key Sites	

Further, MINWR and CNS have about 75 commercial guides and 75 commercial harvesters who currently use Mosquito Lagoon, Indian River Lagoon, and Banana River Lagoon waters by Special Use Permit. Many of these permit holders have an economic interest in use of and access to the Banana River Lagoon and access to area waters from Titusville through SR 402, SR 406, and SR 3.

Related to visitor use and access, traffic interruptions and stoppages could also be a concern, including crossings within KSC's security area, near the SR 3 and SR 402 intersection, and near the SR 406 and SR 402 intersection (including KSC employees, contractors, and deliveries; MINWR employees and visitors; and CNS employees and visitors).

Further, the Service is working with the National Park Service, State of Florida (including the Florida Department of Environmental Protection and Florida Department of Transportation), and Brevard County on a portion of Florida's Coast-to-Coast connector trail (<http://www.fgtf.org/coast-to-coast/>) that would include a rail with trail portion along the existing rail line north of SR 402 connecting from Titusville, through MINWR, and to CNS with additional trail connections to MINWR's Visitor Center and along SR 3 to communities north of MINWR.

The Service is concerned that visitor use, access, and experience would potentially be impacted by the proposal. The Service urges the STB to analyze, evaluate, and fully consider the potential impacts of the proposal on visits and visitors to MINWR and CNS, including on the potential reduction of wildlife within public areas, thus decreasing visitor opportunities to participate in wildlife-oriented recreational activities such as fishing and observing and photographing wildlife. To limit potential impacts to MINWR and CNS visitors, the Service recommends that rail operations be limited to sunset to sunrise.

CULTURAL RESOURCES

In a letter dated November 12, 2014 to the STB, the Service accepted STB's invitation to participate as a Consulting Party under Section 106 of the National Historic Preservation Act. Incorporated herein by reference, the November 12, 2014 Section 106 letter outlined the Service's recommendations and concerns regarding cultural resources associated with the proposal. Further, the Service recommends that the STB develop an understanding of the historic landscape that existed prior to KSC and an understanding of the historic space exploration landscape that has been developed since the establishment of Cape Canaveral Air Force Station and KSC. Both will be important in evaluating potential impacts in the EIS of the proposal.

ACCIDENTS AND CATASTROPHIC EVENTS

The Service urges STB to include analysis in the EIS of accidents and catastrophic events related to construction, operation, and maintenance under the proposal. Of particular concern are: the crossings of the Banana River Lagoon and Indian River Lagoon and wetlands along the existing and proposed alignments, including natural swale habitat, impounded wetlands, and mesic hardwoods. The EIS should describe CPA's planned response and the level of potential damage to adjacent land, water, wildlife, staff of the MINWR and CNS, and the public, as well as how the determination would be made to reopen the area to the public and how damage and losses of MINWR and CNS resources would be mitigated. The CPA should coordinate with local agencies, including the Service, National Park Service, NASA, and appropriate local authorities to develop an emergency response plan to include actions for assessment and mitigation of impacts to infrastructure, natural and cultural resources, and the public in the event of an accident or catastrophic mishap. This emergency response plan would also need to address fire management concerns related to the particular cargo that could be involved in an accident or catastrophic event.

OTHER CONCERNS

The Service has other concerns that should be addressed in the EIS. Noise impacts associated with construction, operation, and maintenance activities under the proposal should be addressed. While this associated noise could alter wildlife distribution and movement away from rail alignments and could temporarily interfere with wildlife communication, startle wildlife, and trigger fight or flight responses, we also recognize that some wildlife could become habituated to train noise and disturbance. Federal regulations (49 Code of Federal Regulations Part 222 Appendix E) state that locomotive horns need to be between a minimum of 96 decibels and a maximum of 110 decibels at 100 feet; 110 decibels is the pain threshold for humans. It seems that nine new railroad crossings would be needed in Florida scrub-jay habitat for the proposed new rail. The Service is also concerned that construction, operation, and maintenance activities associated with the proposal could unintentionally contribute to the invasion and spread of invasive plants. Further, given the concerns related to the proposed

causeway, the Service suggests that STB and CPA consider other reasonable alternatives in the EIS, such as a State Road 528 alternative with no new causeway.

CONCLUDING COMMENTS

The Service has identified a number of concerns regarding the proposal, including candidate, threatened, and endangered species; migratory birds, including bald eagles; other species of management concern; Banana River Lagoon, wetlands, water quality, and fisheries resources; MINWR management, including fire management and visitor services; cultural resources; accidents and catastrophic events; and other concerns. We look forward to working with STB, the cooperating agencies, CPA, and the contractor throughout the EIS planning process for the proposal. If you have further questions or need clarification, please contact me at 321.861.2278 and/or Layne_Hamilton@fws.gov.

Sincerely yours,



Layne Hamilton
Project Leader, Merritt Island NWR Complex

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- cc: Sylvia Pelizza (Sylvia_Pelizza@fws.gov), Area II Supervisor, SE Region, U.S. Fish and Wildlife Service
Maury Bedford (Maury_Bedford@fws.gov), Deputy Area II Supervisor, SE Region, U.S. Fish and Wildlife Service
Don Dankert (Donald.J.Dankert@nasa.gov), Kennedy Space Center, NASA
Irene Sadowski (Irene.Sadowski@usace.army.mil), Cocoa Permitting Section, U.S. Army Corps of Engineers
Barry Dragon (Barry.Dragon@uscg.mil), U.S. Coast Guard
Randall D. Overton (Randall.D.Overton@uscg.mil), U.S. Coast Guard
Myrna Palfrey (Myrna_Palfrey@nps.gov), Park Superintendent, Canaveral National Seashore, National Park Service
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