APPENDIX A

AIR QUALITY, CLIMATE, GHG SOCIAL COST ANALYSIS

A.1 Construction Emission Inventory

The U.S. Environmental Protection Agency (USEPA) sets National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. The USEPA identifies the following seven criteria air pollutants for which NAAQS are applicable: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and sulfur dioxide (SO_2). The USEPA describes these pollutants as "criteria" air pollutants because the agency regulates them by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels (EPA, 2023).

According to the USEPA, Horry County is classified as “attainment” for all criteria pollutants (EPA, 2024). All construction activity would occur in the EA’s direct study area, which is also an “attainment” area for all NAAQS (EPA, 2024).[1]

This construction emission inventory (CEI) assessment was prepared for informational purposes to disclose the Proposed Project’s potential construction-related air emissions. Construction of the Proposed Project is anticipated to begin in 2026. The construction of the temporary runway is approximately 16 months, and the reconstruction of Runway 18/36 is approximately 4 months. The CEI uses 2026, 2027, and 2028 as the study years for analysis because 2026-2027 is the projected construction timeframe for the temporary runway. Reconstruction of Runway 18/36 would occur in 2028, and the reconstructed Runway 18/36 is projected to re-open in 2029.

A.1.1 Construction Emissions Inventory Approach

Construction requirements for the Proposed Project include a variety of construction emissions sources: non-road, on-road, and fugitive dust. The emissions from these sources are most commonly associated with the following types of activities: earthwork, grading and leveling, and construction equipment storage and movement.

Off-road Emission Sources

Non-road sources associated with the Proposed Project's construction include exhaust from heavy construction equipment (e.g., rollers) and fugitive dust emissions.

On-road Emission Sources

On-road emission sources associated with the Proposed Project's construction include material delivery vehicles (e.g., cement trucks) and passenger vehicles transporting construction personnel to and from the job site.

Fugitive Emissions

Paving or dust emission sources associated with the Proposed Project's construction include material movement on paved and unpaved roads, soil handling, un-stabilized land, and wind erosion. Paving or dust emissions were based on the number of months for construction.

Construction emissions are estimated based on these factors: construction schedule; the number of construction vehicles and/or equipment; the types of construction vehicles and/or equipment; types of

[1] NAAQS are six criteria pollutants: carbon monoxide, lead, ozone, sulfur dioxide, nitrogen dioxide, and ozone.

fuel used to power the equipment and vehicles; vehicle and equipment hourly activity/vehicle miles traveled; construction materials used and their quantities; and the duration of construction.

A.1.2 MOVES3

The CEI used the EPA's MOtor Vehicle Emissions Simulator 3 (MOVES3.1) to analyze the Proposed Project's potential construction emissions.

A.1.2.1 Construction Emissions Inventory Inputs

The Proposed Project's cost estimates and typical construction practices were used to develop the Non-Road CEI inputs displayed in ***Table A-1, Table A-2, and Table A-3***. On-Road CEI inputs are displayed in ***Table A-4, Table A-5, and Table A-6***. Inputs were coordinated with construction management engineers based on engineering judgment and past experience with airport construction projects. These equipment types and hours were used in MOVES3.1 to develop non-road and on-road engine emissions and load factors to determine the Proposed Project's emissions.

Table A-1: 2026 Non-Road Construction Emissions Inventory Inputs

Equipment Type	Fuel Type	Operating Hours
Air Compressor	Diesel	497
Chain Saw	Diesel	394
Chipper/Stump Grinder	Diesel	394
Concrete Saws	Diesel	497
Concrete Truck	Diesel	2,072
Dozer	Diesel	2,324
Dump Truck	Diesel	394
Dump Truck (12 cy)	Diesel	4,494
Excavator	Diesel	729
Grader	Diesel	158
Loader	Diesel	394
Other General Equipment	Diesel	1,520
Pickup Truck	Diesel	4,242
Pumps	Diesel	131
Roller	Diesel	1,546
Rubber Tired Loader	Diesel	497
Scraper	Diesel	595
Slip Form Paver	Diesel	497
Surfacing Equipment (Grooving)	Diesel	497
Tractors/Loader/Backhoe	Diesel	272
Water Truck	Diesel	4,320

Source: RS&H 2024.

Table A-2: 2027 Non-Road Construction Emissions Inventory Inputs

Equipment Type	Fuel Type	Operating Hours
Dozer	Diesel	336
Dump Truck	Diesel	446
Flatbed Truck	Diesel	3,073
Hydroseeder	Diesel	143
Loader	Diesel	110
Off-Road Truck	Diesel	143
Other General Equipment	Diesel	3,314
Pickup Truck	Diesel	3,782
Pumps	Diesel	131
Skid Steer Loader	Diesel	110
Tractors/Loader/Backhoe	Diesel	242
Water Truck	Diesel	1,440

Source: RS&H 2024.

Table A-3: 2028 Non-Road Construction Emissions Inventory Inputs

Equipment Type	Fuel Type	Operating Hours
Air Compressor	Diesel	594
Cold Planer	Diesel	356
Concrete Saws	Diesel	3,804
Concrete Truck	Diesel	2,475
Crack Cleaner	Diesel	31
Crack Filler (Trailer Mounted)	Diesel	31
Dozer	Diesel	672
Dump Truck	Diesel	3,796
Dump Truck (12 cy)	Diesel	3,036
Excavator	Diesel	3,329
Flatbed Truck	Diesel	3,700
Grader	Diesel	38
Hydraulic Hammer	Diesel	3,210
Hydroseeder	Diesel	4
Loader	Diesel	145
Off-Road Truck	Diesel	4
Other General Equipment	Diesel	8,274
Pickup Truck	Diesel	9,834
Pumps	Diesel	32
Roller	Diesel	522
Rubber Tired Loader	Diesel	594
Skid Steer Loader	Diesel	145
Slip Form Paver	Diesel	594
Surfacing Equipment (Grooving)	Diesel	594
Sweepers	Diesel	356
Tractors/Loader/Backhoe	Diesel	176
Water Truck	Diesel	1,316

Source: RS&H 2024.

The development of Vehicle Miles Traveled (VMT) is based on engineering judgment and past experience with airport construction projects. The calculation of VMT is developed by using the number of construction employees and the number of expected equipment types during the construction of the Proposed Project. The distance traveled by employees and material deliveries for the Proposed Project are based on a 30-mile round trip per passenger car and a 40-mile trip per material delivery. The round-trip distance is applied to each passenger and material delivery vehicle during the length of construction to develop the total VMT used for MOVES3.1.

Table A-4: 2026 On-Road Construction Emissions Inventory Inputs

Equipment	Fuel Type	VMT*
Single Unit Short-haul Truck	Diesel	476,654
Passenger Car	Gasoline	1,664,100

*Note – VMT = vehicle miles traveled.
Source: MOVES3.1, RS&H 2024.

Table A-5: 2027 On-Road Construction Emissions Inventory Inputs

Equipment	Fuel Type	VMT*
Single Unit Short-haul Truck	Diesel	476,654
Passenger Car	Gasoline	177,450

*Note – VMT = vehicle miles traveled.
Source: MOVES3.1, RS&H 2024.

Table A-6: 2028 On-Road Construction Emissions Inventory Inputs

Equipment	Fuel Type	VMT*
Single Unit Short-haul Truck	Diesel	569,160
Passenger Car	Gasoline	433,440

*Note – VMT = vehicle miles traveled.
Source: MOVES3.1, RS&H 2024.

A.1.2.2 Construction Emissions Inventory Results

For informational purposes, ***Table A-7, Table A-8, and Table A-9*** show the criteria pollutants in tons per year during the Proposed Project's construction.

Table A-7: Proposed Project MOVES3.1 Results (Tons Per Year)

							GHGs		
2026	**CO**	**VOC**	**NOx**	**PM_{10}**	**$PM_{2.5}$**	**SOx**	**CO_2**	**CH_4**	**N_2O**
Non-road	0.42	0.11	1.44	0.09	0.09	0.01	3,831.53	N/A	N/A
On-road	6.56	0.15	1.24	0.06	0.05	0.00	936.51	0.02	0.00
Fugitive Emissions	0.00	0.00	0.00	2.14	0.00	0.00	N/A	N/A	N/A
Total	**6.98**	**0.26**	**2.68**	**2.29**	**0.14**	**0.01**	**4,768.04**	**0.02**	**0.00**

Notes: N/A = not applicable.
Totals may not sum due to rounding.
De miminis thresholds are not shown because Horry County is in "attainment" for all NAAQS.
Source: MOVES3.1, RS&H 2024.

Table A-8: Proposed Project MOVES3.1 Results (Tons Per Year)

							GHGs		
2027	**CO**	**VOC**	**NOx**	**PM_{10}**	**$PM_{2.5}$**	**SOx**	**CO_2**	**CH_4**	**N_2O**
Non-road	0.27	0.07	0.88	0.06	0.05	0.01	2,148.76	N/A	N/A
On-road	1.24	0.10	1.01	0.05	0.04	0.00	502.83	0.01	0.00
Fugitive Emissions	0.00	0.00	0.00	0.91	0.00	0.00	N/A	N/A	N/A
Total	**1.52**	**0.17**	**1.89**	**1.01**	**0.10**	**0.01**	**2,651.60**	**0.01**	**0.00**

Notes: N/A = not applicable.
Totals may not sum due to rounding.
De miminis thresholds are not shown because Horry County is in "attainment" for all NAAQS.
Source: MOVES3.1, RS&H 2024.

Table A-9: Proposed Project MOVES3.1 Results (Tons Per Year)

							GHGs		
2028	**CO**	**VOC**	**NOx**	**PM_{10}**	**$PM_{2.5}$**	**SOx**	**CO_2**	**CH_4**	**N_2O**
Non-road	0.50	0.16	2.11	0.12	0.12	0.02	6,223.92	N/A	N/A
On-road	2.13	0.11	1.16	0.04	0.04	0.00	654.68	0.01	0.00
Fugitive Emissions	0.00	0.00	0.00	2.52	0.00	0.00	N/A	N/A	N/A
Total	**2.63**	**0.27**	**3.27**	**2.68**	**0.15**	**0.02**	**6,878.60**	**0.01**	**0.00**

Notes: N/A = not applicable.
Totals may not sum due to rounding.
De miminis thresholds are not shown because Horry County is in "attainment" for all NAAQS.
Source: MOVES3.1, RS&H 2024.

A.2 Climate and GHG Social Costs

In January 2023, the Council on Environmental Quality (CEQ) issued interim guidance, *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change,*[2] to assist agencies in analyzing greenhouse gas emissions (GHG) and climate change effects of a Proposed Project under NEPA. The FAA has not established a significance threshold for Climate impacts. As such, this section quantifies and discloses the potential greenhouse gas (GHG) emissions from the Proposed Project and provides context by monetizing the results using social cost of carbon estimates.

The CEQ identified Social Cost-Greenhouse Gases (SC-GHG) as the metric for assessing potential climate impacts and represents the monetary estimate of the effect associated with each additional metric ton of carbon dioxide released into the air (Interagency Working Group, 2021). The three GHGs[3] that are analyzed are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), which represent more than 97% of U.S. GHG emissions. Tocalculate SC-GHG, the carbon dioxide equivalent CO_2e[4] must be

[2] 88 FR 1196, National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate; Accessed November, 2023

[3] These three GHGs are identified in the CEQ's National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change.

[4] CO_2e: Number of metric tons of CO2 emissions with the same global warming potential as one metric ton of another greenhouse gas.

calculated first. CO_2e is calculated using the Global Warming Potential (GWP) metric to compare the impact a gas has on the global climate concerning CO_2. GWP values are based on the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) (IPCC, 2023). For example, CH_4 has 28 times the GWP of CO_2 and absorbs 28 times more energy in the atmosphere when compared to CO_2 (IPCC, 2023). ***Table A-10*** shows the CO_2e values for construction year 2026 using the CEI results from ***Table A-7***. ***Table A-11*** shows the CO2e values for construction year 2027 using the CEI results from **Table *A-8***. ***Table A-12*** shows the CO2e values for construction year 2028 using the CEI results from ***Table A-9***.

Table A-10: 2026 Proposed Project CO_2e

Pollutant	Emissions Quantity (Tons)	AR6 GWP	CO_2e
CO_2	4,768.040	1	4,768.04
CH_4	0.019	28	0.54
N_20	0.003	265	0.76
		Total	***4,769.34***

Note: Totals may not sum due to rounding.
Sources: MOVES 3.1; Interagency Working Group, 2021[5]; IPCC Sixth Assessment 2023.[6]

Table A-11: 2027 Proposed Project CO_2e

Pollutant	Emissions Quantity (Tons)	AR6 GWP	CO_2e
CO_2	2,651.596	1	2,651.60
CH_4	0.007	28	0.18
N_20	0.001	265	0.31
		Total	***2,652.09***

Note: Totals may not sum due to rounding.
Sources: MOVES 3.1; Interagency Working Group, 2021[7]; IPCC Sixth Assessment 2023.[8]

Table A-12: 2028 Proposed Project CO_2e

Pollutant	Emissions Quantity (Tons)	AR6 GWP	CO_2e
CO_2	6,878.602	1	6,878.60
CH_4	0.009	28	0.26
N_20	0.002	265	0.43
		Total	***6,879.29***

Note: Totals may not sum due to rounding.
Sources: MOVES 3.1; Interagency Working Group, 2021[9]; IPCC Sixth Assessment 2023.[10]

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5 https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf ; Accessed February 2024
6 https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf; Accessed November 2023
5 https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf ; Accessed February 2024
8 https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf; Accessed November 2023
5 https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf ; Accessed February 2024
10 https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf; Accessed November 2023

The Interagency Working Group (IWG) developed average discount rates to assess climate impacts over time.The higher the discount rate, the lower the social climate cost (SCC) for future generations.Three integrated assessment models (IAMs) were used to develop discount rates that were based on the results from the three IAMs used by the IWG: William Nordhaus' DICE model (Yale University), Richard Tol's FUND model (Sussex University), and Chris Hope's PAGE model (Cambridge University) (Interagency Working Group, 2021).The IWG average discount rates are 5 percent, 3 percent, 2.5 percent, and the 95th percentile estimate at the 3 percent discount rate, which represents the potential for low-probability catastrophic climate impacts. The IWG average discount rates represent a range of possible climate impacts to future generations. For example, the 5 percent average rate represents a situation where future generations are best suited to manage potential climate impacts from the Proposed Project, leading to a minimal social cost impact. The IWG determined the social cost of CO_2 (SC-CO_2) through 2050 and assigned a monetary value[11] for each additional metric ton of CO_2 produced. SC-CO_2 is equivalent to SC-GHGs and represents the social costs of the total greenhouse gases converted to the CO_2e equivalent. The SC-CO_2 helps weigh the benefits of climate mitigation against its costs.

Table A-13 shows the monetary value of each additional metric ton of CO_2 for 2026, 2027, and 2028. The SC-CO_2 models project the future cost of each additional ton of CO_2 (Institute for Policy Integrity, 2017).

The construction emissions inventory's CO_2e (see ***Table A-10***) was multiplied by the average discount rates (see ***Table A-13***) to determine the monetary impact for 2026, 2027, and 2028. ***Table A-14*** shows the SC-CO_2 for the Proposed Project's construction timeframe (2026-2028).

Table A-13: Annual Construction Emissions SC-CO_2 Per Metric Ton of CO_2 (in 2020 dollars)

Emissions year	Average Estimate at 5% Discount Rate	Average Estimate at 3% Discount Rate	Average Estimate at 2.5% Discount Rate	95th Percentile Estimate at 3.0% Discount Rate
2026	$17	$57	$84	$173
2027	$18	$59	$86	$176
2028	$18	$60	$87	$180

Note: Discount Rates from IWG 2021 represent the monetary value of each additional metric ton of CO_2 produced for 2026, 2027, and 2028. These monetary values are based on the results from three economic models used by the IWG: William Nordhaus' DICE model (Yale University), Richard Tol's FUND model (Sussex University), and Chris Hope's PAGE model (Cambridge University). The model projects the future cost of each additional metric ton of CO_2.
Sources: Interagency Working Group, 2021, IPCC Sixth Assessment 2023, RS&H, 2024.

[11] These monetary values are based on the results from three economic models used by the IWG: William Nordhaus' DICE model (Yale University), Richard Tol's FUND model (Sussex University), and Chris Hope's PAGE model (Cambridge University).

Table A-14: Annual Social Cost - Carbon Dioxide for the Proposed Project

Emissions Year	Proposed Project CO_2e	Average Estimate at 5% Discount Rate	Average Estimate at 3% Discount Rate	Average Estimate at 2.5% Discount Rate	95th Percentile Estimate at 3.0% Discount Rate
2026	4,769.34	$81,079	$271,852	$400,625	$825,096
2027	2,652.09	$47,738	$156,473	$228,080	$466,768
2028	6,879.29	$123,827	$412,757	$598,498	$1,238,272

Note: Per the 2023 IPCC Sixth Assessment Report, CO_2e equivalent for SC-GHG were calculated using the Interagency Working Group[12] average discount rates: 5 percent, 3 percent, 2.5 percent, and the 95th percentile estimate applying the 3 percent discount rate. CO_2e Values are multiplied by the discount rate to calculate SC-CO_2.
Per the 2023 IPCC[13] Sixth Assessment Report, the CO_2 equivalent for N_2O is calculated by multiplying the N_2O emissions by the GWP of 265. The CO_2 equivalent for CH_4 is calculated by multiplying the CH_4 emissions by the GWP of 28. For example, the 2026 Average Estimate at a 5% Discount Rate was calculated using the 2026 CO2e value of 4,769.34 multiplied by 2026's $17 determined value for the 5% Discount Rate.
Sources: Interagency Working Group, 2021, IPCC Sixth Assessment 2023, RS&H, 2024.

The calculated social costs are estimates only and subject to change depending on various factors (e.g., energy supply).[14] These calculations are for information purposes only and represent the potential social costs from construction emissions during the Proposed Project's construction. The social cost calculations represent a range of possibilities and are not guaranteed to occur. As shown in ***Table A-14***, the range of potential social costs from the Proposed Project from construction emissions is approximately $81,079 – $825,096 for 2026, $47,738 - $466,768 for 2027 and $123,827 - $1,238,272 for 2028. This cost range represents the potential social costs of adding GHGs to the atmosphere in a given year.It includes the value of all climate change impacts, including (but not limited to) changes in net agricultural productivity, human health effects, property damage from increased flood risk natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services (Interagency Working Group, 2021). It is important to note that this climate analysis does not include positive impacts from the Proposed Project (e.g., improve the Runway 18-36 safety and extend the life for approximately 20 years).

In considering the impact of climate change on the Proposed Project, the foreseeable state of the environment is not expected to change significantly over the limited construction duration of the Proposed Project, which spans approximately three years, since effects are typically felt on decadal time scales. For example, the ACRP guidance on Climate Change Adaptation Planning: Risk Assessment for Airports (ACRP Report 147, 2015) provides short-term and long-term forecasts for 2030 and 2060 and recommends re-evaluating climate change risks to airports every 3-5 years. Therefore, no significant impacts to the Proposed Project are anticipated as a result of climate change effects occurring during the Proposed Project's construction.

[12] https://www.whitehouse.gov/wpcontent/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf; Accessed November, 2023
[13] https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf; Accessed November, 2023
[14] https://costofcarbon.org/files/Omitted_Damages_Whats_Missing_From_the_Social_Cost_of_Carbon.pdf; Accessed November 2023

APPENDIX B

BIOLOGICAL RESOURCES

December 2023

Myrtle Beach International Airport Wildlife Survey

Myrtle Beach International Airport Wildlife Survey

Volume No. 1

December 2023

Myrtle Beach/Horry County, South Carolina

RS&H No.: 102-118-6006

Prepared by RS&H, Inc. at the
direction of Myrtle Beach International
Airport

Table of Contents

1 Introduction

Deteriorating subbase materials on the runway are accelerating pavement degradation at Myrtle Beach International Airport (Airport, MYR). The Horry County Department of Airports (HCDA) needs airfield improvements to address this issue. The Proposed Project is the permanent full depth and width runway pavement rehabilitation of Runway 18-36. Connected actions to the Proposed Project include the construction of a 6,800-foot temporary runway between Runway 18-36 and the full parallel Taxiway B. In addition, the HCDA proposes the construction of taxiway connectors (B3 and B4), 30-foot wide temporary runway shoulders, runway edge lighting, and stormwater system improvements. The temporary runway starts at taxiway connector B5 and ends at taxiway connector B2. After Runway 18-36 rehabilitation is complete, the temporary runway would be converted into a taxiway.

The U.S. Fish and Wildlife Service (USFWS) enforces the Endangered Species Act, and the South Carolina Department of Natural Resources (SCDNR) enforces the South Carolina Nongame and Endangered Species Conservation Act (SC Code Section 50-15). A desktop analysis and threatened and endangered (T&E) survey of the project area were conducted. This survey information is being used to determine if the Proposed Project would result in impacts to, or takings of, protected T&E or critical habitats. The T&E species remote data assessment (the desktop review) results and the results from the on-site survey are discussed below.

2 Survey Area Description

The survey area is approximately 88 acres located on the northwest portion of the Airport property. There are minimal changes in elevation throughout, which vary from being saturated to being filled with water a few feet deep in some areas (i.e., on-Airport stormwater detention conveyance system/swales). The area is heavily maintained with routine mowing, such that the entire area is herbaceous with no shrub or tree species present.

The area surrounding the Airport consists of a mixture of residential and commercial use, and includes golf courses, retention ponds, and forest tracts. The Atlantic coast is approximately two miles from the survey area. Myrtle Beach State Park is approximately three miles from the survey area, and the closest portion of the Intracoastal Waterway is approximately 1,300 feet from the northern Airport property boundary. The Airport location relative to the surrounding area can be viewed in **Figure 1**, and the survey area with transects can be viewed in **Figure 2**.

3 Methods

3.1 Transect Design

This wildlife survey assesses the presence or absence of federal and state-listed species within the survey area based on line distance sampling methods, as detailed in Buckland et al. (1993). The survey focused on systematically collecting data along transect lines established to ensure comprehensive coverage of the survey area and were spaced to represent the range of habitats on-site and potential species occurrence.

3.2 Data Collection

A surveyor conducted pedestrian transects, frequently stopping to scan the horizon and surrounding area with binoculars and recording observations of wildlife, typical site conditions, vegetation, and other notable observations. Detailed data were collected, including any observed species and group size. The sampling unit, representing the area where observations contributed to presence/absence determinations, was defined as a strip perpendicular to the transect line.

3.3 Assumptions/Limitations

The methodology operated under the assumption that the species' presence or absence could be reliably determined through line distance sampling. Limitations, including potential biases and variations in observer skills, were acknowledged and considered in the analysis.

4 Species Inventory

The species inventory section provides a comprehensive overview of the potential T&E wildlife researched (USFWS and SCDNR online resources) and observed during the field survey, focusing on species classified into three likelihood categories for encounter: High, Medium, and Low. The categorization was based on a pre-survey desktop assessment that considered habitat suitability and historical records. T&E wildlife in the High category is expected to be encountered within the survey area due to optimal habitat for nesting, breeding, or foraging. Wildlife in the Medium category is identified as species that may use the survey area for foraging activities but are unlikely to use the area for nesting or breeding. The Low designation is reserved for wildlife species that may be present in the surrounding area and may utilize the survey area during migratory activities, but are unlikely to use the area for nesting, breeding, or foraging. The wildlife survey began at approximately 8:45 am and concluded at 11:00 am.

4.1 Listed Species Status

The Proposed Project and survey area underwent a comprehensive review through the USFWS Information for Planning and Consultation (IPaC) system, seeking guidance on federally listed species. Within this framework, 12 threatened or endangered species were identified that might occur witin the survey area. Following a detailed analysis based on the IPaC submission, the Proposed Project has been determined to have "No Effect" on all federally listed species except for the piping plover (*Charadrius melodus*) and rufa red knot (*Calidris canutus rufa*), which were categorized as "Not Likely to Adversely Affect" (NLAA). However, the habitat requirements for both the piping plover and rufa red knot fall outside the survey area and were not observed during the survey. Therefore, a more accurate designation for these species is "No Effect," as the Proposed Project's activities would not impact their habitats.

In addition to the 12 T&E species identified through IPaC, seven state-listed T&E species were identified as potentially occurring within the survey area. **Table 1** below provides a list of T&E species, their federal and state listing status, typical habitat and USFWS Effect determination. The IPaC system correspondence with USFWS and effect determination letter can be found in **Appendix A**.

Table 1:

Federal and State-Listed T&E Species Potentially within the Survey Area

Wildlife Species	USFWS Listing Status	SCDNR Listing Status	Habitat	IPaC Effect Determination	Likeliness to Encounter
Piping Plover (*Charadrius melodus*)	Threatened	Endangered	Coastal; sand pits, tidal flats, shoals, sandbars	NLAA	None
Red-cockaded Woodpecker (*Picoides borealis*)	Endangered	Endangered	Mature pine forest	No Effect	None
Rufa Red Knot (*Calidris canutus rufa*)	Threatened	Threatened	Coastal marine and estuarine habitats with large areas of exposed intertidal sediments	NLAA	None
Swallow-tailed Kite (*Clemmys guttata*)	--	Endangered	Large tracts of forested wetlands of the Outer Coastal Plain	--	Low
Bald Eagle (*Haliaeetus leucocephalus*)	--	Threatened	Tall, live pines with a higher canopy than surrounding trees	--	Low
Peregrine Falcon (*Falco peregrinus*)	--	Endangered	Barrier island beaches and waterfowl impoundments	--	Low
Roseate tern (*Sterna dougallii dougallii*)	--	Threatened	Sandy barrier or rocky islands, occasionally islands or hummocks in salt marshes	--	None
Least Tern (*Sternula antillarum*)	--	Threatened	Beaches and sandbars with abundant shells, pebbles, and sparse vegetation	--	None
Spotted Turtle (*Clemmys guttatta*)	--	Threatened	Shallow aquatic habitats, including ditches, bays, bogs, cypress swamps	--	Medium
Kemp's Ridley Sea Turtle (*Lepidochelys kempii*)	Endangered	Endangered	Shallow coastal waters, bays, lagoons, estuaries	No Effect	None
Leatherback Sea Turtle (*Dermochelys coriacea*)	Endangered	Endangered	Marine waters	No Effect	None
Loggerhead Sea Turtle (*Caretta caretta*)	Threatened	Threatened	Marine waters	No Effect	None
Green Sea Turtle (*Chelonia mydas*)	Threatened	Threatened	Marine waters	No Effect	None
Southern Hog-nosed Snake (*Heterodon simus*)	--	Threatened	Xeric upland sandhills, pine flatwoods, coastal dune habitats	--	None
Northern Long-eared Bat (*Mytosis septentrionalis*)	Endangered	Endangered	Mature mixed hardwood forest, mixed pine forest	No Effect	None
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	Proposed Endangered	Live or recently dead deciduous hardwood trees, artificial roots	No Effect	None

Rafinesque's Big-Eared Bat	--	Endangered	Coastal plains, dilapidated buildings or tree cavities near water	--	None
Flowering Plant Species	USFWS Listing Status	SCDNR Listing Status	Habitat	IPaC Effect Determination	Likeliness to Encounter
Canby's Dropwort (*Oxypolis canbyi*)	Endangered	Endangered	Pond cypress savannahs, edges of cypress/pond pine ponds, sloughs, wet pine savannahs	No Effect	None
American Chaffseed (*Schwalbea americana*)	Endangered	Endangered	Fire-maintained longleaf pine flatwoods and savannahs	No effect	None
Pondberry (*Lindera melissifolia*)	Endangered	Endangered	Bottomland and hardwood wetland interiors, margins of sinks, ponds, and other depressions in coastal sites	No Effect	None

Source: South Carolina Ecological Services Field Office (ESFO) Determination Key (DKey); USFWS.gov; SCDNR Threatened and Endangered Species Inventory

4.2 High Likelihood Species

In assessing the likelihood of encountering species during the survey, the analysis accounted for the characteristics surrounding the area, including a mix of commercial and residential areas and proximity to bodies of water. In this context, there are no federal or state listed T&E species that are highly likely to be encountered within the survey area based on factors such as historical presence and habitat suitability.

4.3 Medium Likelihood Species

Spotted Turtle (*Clemmys guttata*) – Threatened (State)

The spotted turtle typically reaches only 3.5 to 4.3 inches, with a maximum size of approximately 4.7 inches, and features a black carapace with orange-yellow dots. The head and neck of the spotted turtle also have orange-yellow blotches, although carapacial spots are sometimes reduced or absent in juveniles and very old individuals.

While not abundant in South Carolina, the spotted turtle can be common in suitable habitat throughout the coastal plain and is known to occur on several tracts of public land in the state. It is semi-aquatic and inhabits a variety of wetland types, including small ponds, streams, swamps, flooded forests, and other shallow bodies of water. Spotted turtles are most active during early spring, with some individuals, particularly males, wandering some distance during the spring. They can be difficult to find during the summer months when they undergo a period of aestivation (summer dormancy) in some areas (SCDNR, 2015).

A network of on-site stormwater ditches provides a potential suitable habitat for spotted turtles, which prefer slow-moving shallow water with lots of aquatic vegetation. The spotted turtle was not observed during the field survey. The Proposed Project would have no effect on the spotted turtle.

4.4 Low Likelihood Species

Bald Eagle (*Haliaeetus leucocephalus*) – Threatened (State)

The Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA) protect the bald eagle. Bald eagles showcase predominantly dark brown plumage throughout their body, except for their head, neck, and tail, which is white. Its bill, feet, and eyes are distinctly yellow. In their juvenile stage, eaglets display a range of light to dark brown plumage with dark eyes and bill. The transition to mature colors begins around three years and may not be complete until 5-6 years.

The bald eagle is the largest raptor in South Carolina. It feeds predominantly on fish, waterfowl, carrion, and occasionally small mammals. Nests are constructed in tall trees along coasts or riverbanks and lakes, chosen for their proximity to water, vantage point, and tree height. Typically, nesting sites are within one mile of large bodies of water (SCDNR, n.d.).

The Airport's proximity to the coast increases the likelihood that bald eagles may be observed near the survey area, however, it is not likely that they would utilize the survey area, which lacks tall trees suitable for nesting. The Bald Eagle was not observed during the field survey. The Proposed Project would have no effect on the Bald Eagle.

American Peregrine Falcon (*Falco peregrinus*) – Endangered (State)

Mature peregrine falcons exhibit slate-gray plumage on their upper parts, complemented by a pale white or buff underside with dark spots and bars, including a distinctive stripe beneath their eyes. Juvenile falcons are brownish-slate above and display heavily streaked undersides. Comparable in size to crows, they feature beaks distinguished by a notable notch used for severing the spinal cord of prey.

Peregrine falcons have worldwide distribution. In South Carolina, they are typically found near barrier island beaches and waterfowl impoundments, as well as in cities where prey (such as pigeons) is abundant. Peregrine falcons feed almost exclusively on other birds, which they catch in midair. While peregrines do not build their own nests, they use other birds' nests or crevices in trees or cliffs and are seen during the winter season or during migration in South Carolina (SCDNR, n.d.).

The Airport's proximity to waterfowl impoundments and urbanized areas increases the likelihood that peregrine falcons may be encountered in the survey area. However, it is important to note that peregrine falcons do not nest along the coastal plains of South Carolina. Instead, the survey area may serve as a migratory pathway for these falcons, presenting an opportune location for hunting prey or as a migratory pathway. The American Peregrine Falcon was not observed during the field survey. The Proposed Project would have no effect on the American Peregrine Falcon.

Swallow-tailed Kite (*Clemmys guttata*) – Endangered (State)

Swallow-tailed kites can be recognized by long, pointed wings, a deeply forked tail with black feathers, a white body and head, and a dark, sharply hooked bill. They spend most of their time in the air, however, mating pairs build nests in the upper branches of trees, preferring dominant loblolly pines growing within or on the edges of wetland forests.

Swallow-tailed kites prey on insects, anoles, treefrogs, small snakes, and nestling birds. They eat, drink, and bathe on the wing and are closely associated with large tracts of forested wetlands of the Outer Coastal Plain of South Carolina. A migratory species, the swallow-tailed kite typically travels south in late summer or early fall and returns to the southeastern United States in the spring (SCWF, n.d.; SCDNR, 2015).

The Airport's proximity to large tracts of forested wetlands and available prey suggests a potential foraging habitat for swallow-tailed kites. However, the absence of tall trees within the survey area diminishes the likelihood of the survey area serving purposes beyond foraging habitat or as a migratory pathway. The swallow-tailed kite was not observed during the field survey. The Proposed Project would have no effect on the swallow-tailed kite.

5 Results

During the comprehensive wildlife survey conducted within the proposed construction area at MYR, field observations revealed an absence of federal and state designated T&E species potentially associated with the region within the survey area.

Vegetation in the upland areas of the survey area includes broomsedge (*Andropogon* spp.), bitter sneezeweed (*Helenium amarum*), crabgrass (*Digitaria* spp.), carpetgrass (*Anxonopus fissifolius*), common dandelion (*Taraxacum officinale*), blackberry (*Rubus* sp.), and Bermuda grass (*Cynodon dactylon*). Many

inundated areas contained algae, large rocks, and murky water. Stormwater system/swale depths ranged from approximately 0.5 inch to a few feet deep, with deeper areas typically found towards the northern portion of the survey area. Photos of the survey area, notable observations, and typical vegetation can be found in the photo log in **Appendix B**.

6 Conclusion

The Proposed Project would not adversely impact federal or state-listed T&E species or their critical habitats.

7 References

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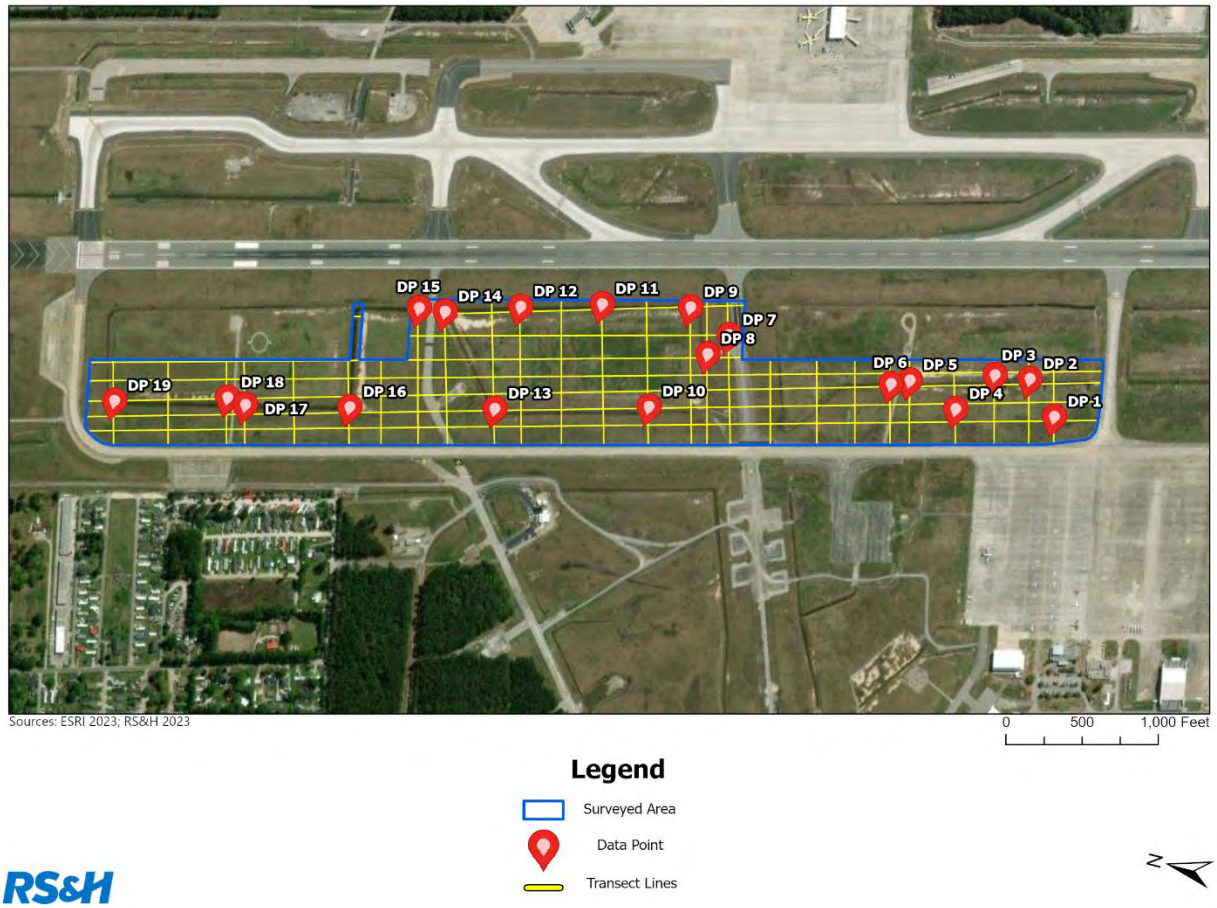
South Carolina Wildlife Federation. (n.d.). Swallow-tailed Kites. Retrieved from https://www.scwf.org/swallowtailed-kites

Figures

Figure 1: Airport Location

Figure 2: Survey Area



Appendix A: USFWS Correspondence and Determination Letter

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
Phone: (843) 727-4707 Fax: (843) 727-4218

In Reply Refer To: December 18, 2023
Project code: 2024-0027524
Project Name: MYR Runway 18-36 Rehabilitation EA

Federal Nexus: yes
Federal Action Agency (if applicable): Federal Aviation Administration

Subject: Record of project representative's no effect determination for 'MYR Runway 18-36 Rehabilitation EA'

Dear Michael Fesanco:

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 December 18, 2023, for 'MYR Runway 18-36 Rehabilitation EA' (here forward, Project). This project has been assigned Project Code 2024-0027524 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 Rangewide 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

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. 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 for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Chaffseed *Schwalbea americana* Endangered
- Canby's Dropwort *Oxypolis canbyi* Endangered
- Green Sea Turtle *Chelonia mydas* Threatened
- Kemp's Ridley Sea Turtle *Lepidochelys kempii* Endangered
- Leatherback Sea Turtle *Dermochelys coriacea* Endangered
- Loggerhead Sea Turtle *Caretta caretta* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Piping Plover *Charadrius melodus* Threatened
- Pondberry *Lindera melissifolia* Endangered
- Red-cockaded Woodpecker *Picoides borealis* Endangered
- Rufa Red Knot *Calidris canutus rufa* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

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

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/ coordination for this project is required with respect to the northern long-eared bat. 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 South Carolina Ecological Services and reference Project Code 2024-0027524 associated with this Project.

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

1. Name

MYR Runway 18-36 Rehabilitation EA

2. Description

The following description was provided for the project 'MYR Runway 18-36 Rehabilitation EA':

> The Proposed Project is the permanent full depth and width runway pavement rehabilitation of Runway 18-36. Connected actions to the Proposed Project include the construction of a 6,800-foot temporary runway between Runway 18-36 and the full parallel Taxiway B. In addition, the HCDA proposes the construction of taxiway connectors (B3 and B4), 30-foot wide temporary runway shoulders, runway edge lighting, and stormwater system improvements.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.68330725,-78.93140463326614,14z

DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (Myotis septentrionalis). 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 the northern long-eared bat 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. Your project overlaps with an area where northern long-eared bats may be present year-round. Time-of-year restrictions may not be appropriate for your project due to bats being active all year.

   Do you understand that your project may impact bats at any time during the year and time-of-year restrictions may not apply to your project?

   Yes

3. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

   Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

   No

4. Does any component of the action involve 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.

   No

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. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the effects of any activities that would not occur but for the proposed action.

    If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

    Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of Effects of the Action can be found here: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    Yes

PROJECT QUESTIONNAIRE

Will all project activities by completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Private Entity
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City: Jacksonville
State: FL
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Email michael.fesanco@rsandh.com
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LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
Phone: (843) 727-4707 Fax: (843) 727-4218

In Reply Refer To: December 18, 2023
Project code: 2024-0027524
Project Name: MYR Runway 18-36 Rehabilitation EA

Subject: Consistency letter for 'MYR Runway 18-36 Rehabilitation EA' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the South Carolina Ecological Services Field Office (ESFO) Determination Key (DKey) for project review and guidance for federally listed species.

Michael Fesanco:

The U.S. Fish and Wildlife Service (Service) received on **December 18, 2023** your effect determination(s) for the 'MYR Runway 18-36 Rehabilitation EA' (the Action) using the South Carolina ESFO DKey for project review and guidance for federally-listed species within the Information for Planning and Consultation (IPaC) application. The Service developed this application in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's South Carolina ESFO DKey, you made the following effect determination(s) for the proposed Action:

Species	**Listing Status**	**Determination**
American Chaffseed (*Schwalbea americana*)	Endangered	No effect
Canby's Dropwort (*Oxypolis canbyi*)	Endangered	No effect
Green Sea Turtle (*Chelonia mydas*)	Threatened	No effect
Kemp's Ridley Sea Turtle (*Lepidochelys kempii*)	Endangered	No effect
Leatherback Sea Turtle (*Dermochelys coriacea*)	Endangered	No effect
Loggerhead Sea Turtle (*Caretta caretta*)	Threatened	No effect
Piping Plover (*Charadrius melodus*)	Threatened	NLAA
Pondberry (*Lindera melissifolia*)	Endangered	No effect
Red-cockaded Woodpecker (*Picoides borealis*)	Endangered	No effect
Rufa Red Knot (*Calidris canutus rufa*)	Threatened	NLAA

Consultation with the Service is not complete. The above effect determination(s) becomes applicable when the lead federal action agency or designated non-federal representative submits a request to the Service to rely on the South Carolina ESFO DKey in order to satisfy the agency's consultation requirements for this project.

Please provide this consistency letter to the lead Federal action agency or its designated non-federal representative with a request for its review, and as the agency deems appropriate, to submit for concurrence verification through the IPaC system. The lead Federal action agency or designated non-federal representative should log into IPaC using their agency email account and click "Search by record locator." They will need to enter the record locator **255-136021062**

The following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please note the Service shares jurisdiction with the Fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries) over sea turtles. The Service exerts jurisdiction when sea turtles are nesting on coastal beaches while NOAA Fisheries has jurisdiction when sea turtles inhabit coastal and offshore waters.

In-water activities may require consultation with NOAA Fisheries. Please visit the NOAA Fisheries website at https://www.fisheries.noaa.gov/topic/endangered-species-conservation#conservation-&-management to review their consultation requirements. Also, NOAA Fisheries should be contacted if you think your project will affect Atlantic and/or shortnose sturgeon.

Please note that due to obligations under the ESA, potential impacts of this project must be reconsidered if: (1) new information reveals impacts of this identified action may affect any listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner which was not considered in this assessment; or (3) a new species is listed or critical habitat is designated that may be affected by the identified action. If any of the above conditions occurs, additional consultation with the South Carolina ESFO should take place before project changes are final or resources committed.

Bald and Golden Eagle Protection Act (BGEPA): Bald and golden eagles are not included in this section 7(a)(2) consultation and this information does not constitute a determination of effects by the Service. The Service developed the National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with bald eagles when and under what circumstances the protective provisions of the BGEPA may apply to their activities. The guidelines should be consulted prior to conducting new or intermittent activity near an eagle nest.

If the Federal Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C.

668a-d) may be required. Please contact Ulgonda Kirkpatrick (phone: 321/972-9089, e-mail: ulgonda_kirkpatrick@fws.gov) with any questions regarding potential impacts to bald or golden eagles.

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

1. Name

MYR Runway 18-36 Rehabilitation EA

2. Description

The following description was provided for the project 'MYR Runway 18-36 Rehabilitation EA':

> The Proposed Project is the permanent full depth and width runway pavement rehabilitation of Runway 18-36. Connected actions to the Proposed Project include the construction of a 6,800-foot temporary runway between Runway 18-36 and the full parallel Taxiway B. In addition, the HCDA proposes the construction of taxiway connectors (B3 and B4), 30-foot wide temporary runway shoulders, runway edge lighting, and stormwater system improvements.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.68330725,-78.93140463326614,14z

QUALIFICATION INTERVIEW

1. Does the proposed project involve research or other actions that include the collection, capture, handling, or harassment of any individual federally listed threatened, endangered or proposed species?

   No

2. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

3. Are you the Federal agency or designated non-federal representative?

   No

4. Is the project an existing structure that requires maintenance, repair, or replacement?

   Yes

5. Will all project take place within the existing structure's footprint?

   Yes

6. Does the project intersect the piping plover AOI?

   Automatically answered
   Yes

7. Will the proposed action impact docks, piers, and/or bulkheads?

   No

8. Will the project affect shorebird resting/foraging behavior, foraging habitat (i.e.,), AND/ OR roosting habitat?

   No

9. Does the project intersect the red knot AOI?

   Automatically answered
   Yes

10. Will the proposed action impact docks, piers, and/or bulkheads?

    No

11. Does the project intersect the red-cockaded woodpecker AOI?

    Automatically answered
    Yes

12. Is the action area located within suitable Red-cockaded woodpecker foraging habitat (pine or pine/hardwood stands in which 50% or more of the dominant trees are pines and the dominant pine trees are 30 years of age or older or >10-inches diameter breast height (dbh) and the midstory height does not exceed 12 feet)?

    No

13. Is the action area on a sandy beach above the mean high-water line?

    No

14. Does the project intersect the loggerhead sea turtle AOI?

    Automatically answered
    Yes

15. Does the project intersect the leatherback sea turtle AOI?

    Automatically answered
    Yes

16. Does the project intersect the Kemp's Ridley sea turtle AOI?

    Automatically answered
    Yes

17. Does the project intersect the green sea turtle AOI?

    Automatically answered
    Yes

18. Does the project intersect the pondberry AOI?

    Automatically answered
    Yes

19. Is there suitable pondberry habitat (e.g., pond margins, swampy depressions, sandy sinks, and seasonally flooded wetlands) for pondberry located within the project area?

    No

20. Does the project intersect the American chaffseed AOI?

    Automatically answered
    Yes

21. Is there suitable habitat for American chaffseed located within the project area?

    Note: American Chaffseed occurs in sandy (sandy peat, sandy loam), acidic, seasonally moist to dry soils. It is generally found in early successional habitats described as open, moist pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and xeric (dry) sandy soils, bog borders, and other open grass-sedge systems. American Chaffseed is dependent on factors such as fire and mowing to maintain the open to partly open conditions that it requires. They can be found in habitat that is managed for the red-cockaded woodpecker. The species appears to be shade intolerant. American Chaffseed occurs in species-rich plant communities where grasses, sedges, and savanna dicots are numerous. For more information see: American Chaffseed (Schwalbea americana) Recovery Plan. ECOS: https://ecos.fws.gov/docs/recovery_plan/950929c.pdf

    No

22. Does the project intersect the Canby's dropwort AOI?

    Automatically answered
    Yes

23. Is there suitable habitat for Canby's dropwort located within the project area?

    Note: Canby’s Dropwort can be found in a variety of coastal plain habitats, including natural ponds dominated by pond cypress, grass-sedge-dominated Carolina bays, wet pine savannas, shallow pineland ponds and cypress-pine swamps or sloughs. The largest and most vigorous populations have been found in open bays or ponds that are wet throughout most of the year, but which have little or no canopy cover. Soils are sandy loams or acidic peat mucks underlain by clay layers which, along with the slight gradient of the areas, result in the retention of water.

    No

24. This determination key does not cover the Northern long-eared bat. Have you or will you complete the Determination Key for the Northern long-eared bat?

    Yes

IPAC USER CONTACT INFORMATION

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LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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Charleston, SC 29407-7558
Phone: (843) 727-4707 Fax: (843) 727-4218

In Reply Refer To: December 18, 2023
Project Code: 2024-0027524
Project Name: MYR Runway 18-36 Rehabilitation EA

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. Please 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 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, intentional or unintentional, 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.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. 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
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

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".

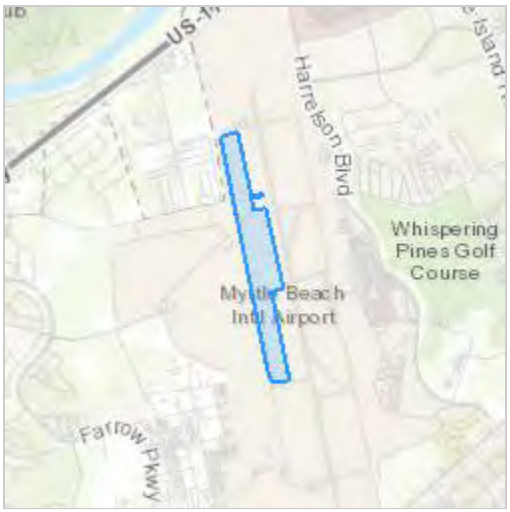
This species list is provided by:

South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
(843) 727-4707

PROJECT SUMMARY

Project Code: 2024-0027524
Project Name: MYR Runway 18-36 Rehabilitation EA
Project Type: Airport - New Construction
Project Description: The Proposed Project is the permanent full depth and width runway pavement rehabilitation of Runway 18-36. Connected actions to the Proposed Project include the construction of a 6,800-foot temporary runway between Runway 18-36 and the full parallel Taxiway B. In addition, the HCDA proposes the construction of taxiway connectors (B3 and B4), 30-foot wide temporary runway shoulders, runway edge lighting, and stormwater system improvements.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.68330725,-78.93140463326614,14z



Counties: Horry County, South Carolina

ENDANGERED SPECIES ACT SPECIES

There is a total of 13 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 Fisheries[1], 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
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Piping Plover *Charadrius melodus* 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 *Picoides borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered
Rufa Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

REPTILES

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: North Atlantic DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Kemp's Ridley Sea Turtle *Lepidochelys kempii* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered
Leatherback Sea Turtle *Dermochelys coriacea* 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 *Caretta caretta* Population: Northwest Atlantic Ocean DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
American Chaffseed *Schwalbea americana* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Canby's Dropwort *Oxypolis canbyi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7738	Endangered
Pondberry *Lindera melissifolia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1279	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.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

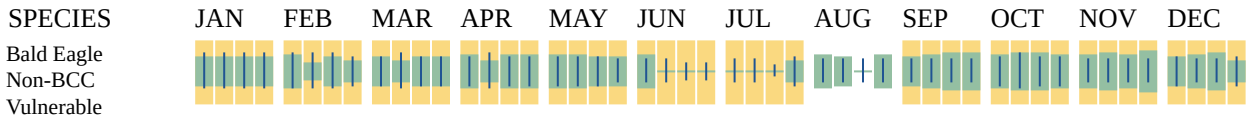
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort – no data



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
American Oystercatcher *Haematopus palliatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8935	Breeds Apr 15 to Aug 31
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black Skimmer *Rynchops niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Brown-headed Nuthatch *Sitta pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427	Breeds Mar 1 to Jul 15
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Coastal (waynes) Black-throated Green Warbler *Setophaga virens waynei* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11879	Breeds May 1 to Aug 15

NAME	BREEDING SEASON
Gull-billed Tern *Gelochelidon nilotica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9501	Breeds May 1 to Jul 31
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Painted Bunting *Passerina ciris* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9511	Breeds Apr 25 to Aug 15
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10633	Breeds elsewhere
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Saltmarsh Sparrow *Ammodramus caudacutus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9719	Breeds May 15 to Sep 5

NAME	BREEDING SEASON
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Swallow-tailed Kite *Elanoides forficatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10669	Breeds Apr 20 to Aug 5
Wilson's Plover *Charadrius wilsonia* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9722	Breeds Apr 1 to Aug 20
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

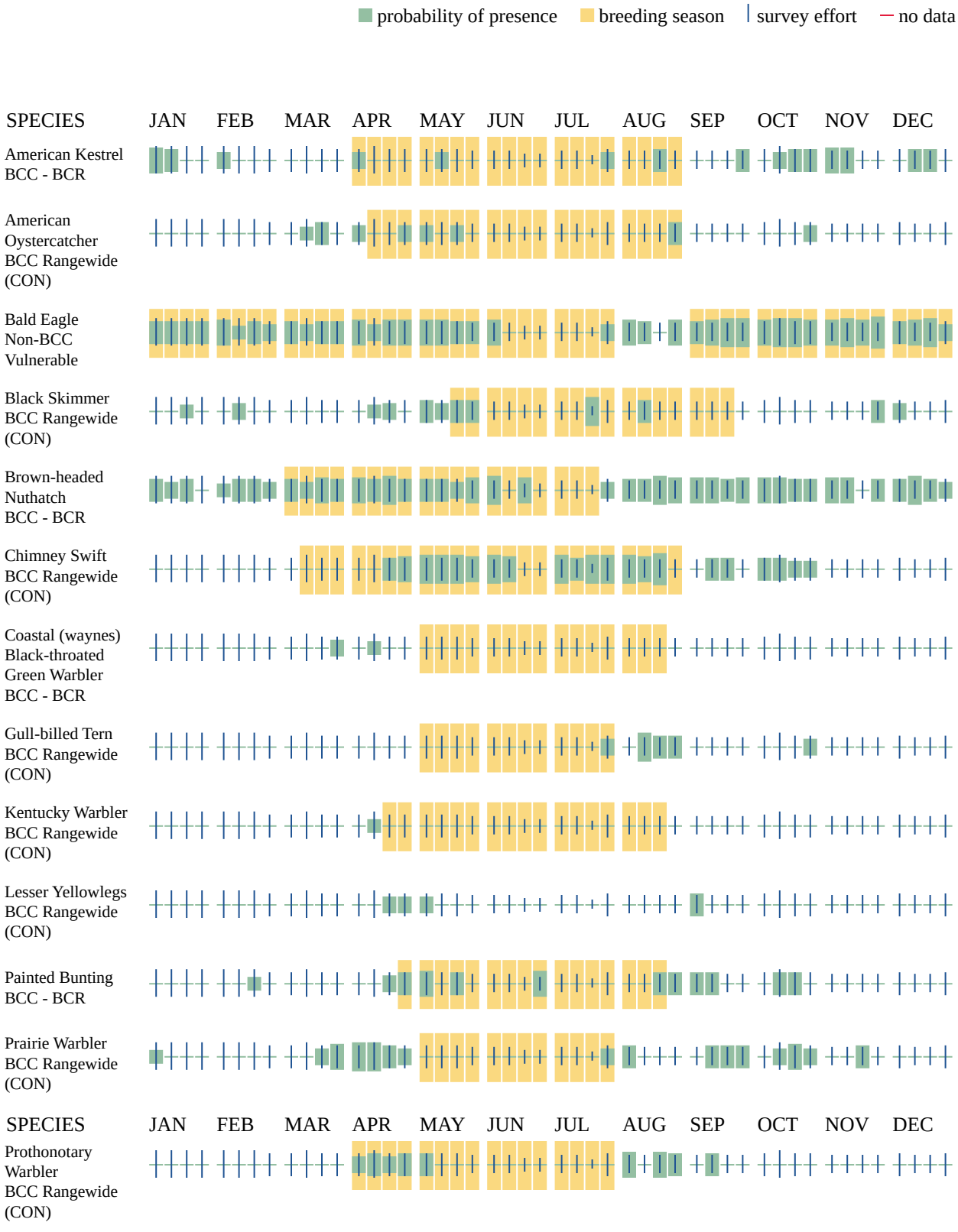
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.


probability of presence
breeding season
survey effort
no data
SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
American Kestrel BCC - BCR
American Oystercatcher BCC Rangewide (CON)
Bald Eagle Non-BCC Vulnerable
Black Skimmer BCC Rangewide (CON)
Brown-headed Nuthatch BCC - BCR
Chimney Swift BCC Rangewide (CON)
Coastal (waynes) Black-throated Green Warbler BCC - BCR
Gull-billed Tern BCC Rangewide (CON)
Kentucky Warbler BCC Rangewide (CON)
Lesser Yellowlegs BCC Rangewide (CON)
Painted Bunting BCC - BCR
Prairie Warbler BCC Rangewide (CON)
SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Prothonotary Warbler BCC Rangewide (CON)

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Michael Fesanco
Address: 10748 Deerwood Park Blvd South
City: Jacksonville
State: FL
Zip: 32256
Email michael.fesanco@rsandh.com
Phone: 3217952840

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration

Appendix B: Photo Log

Notable Observations

Turtle eggs at DP 11

Avian tracks at DP 15

Apple snail eggs at DP 18

Apple snail shell at DP 19

Data Point (DP) 1

Typical condition – Facing North

Typical Condition – Facing East

Typical Condition – Facing South

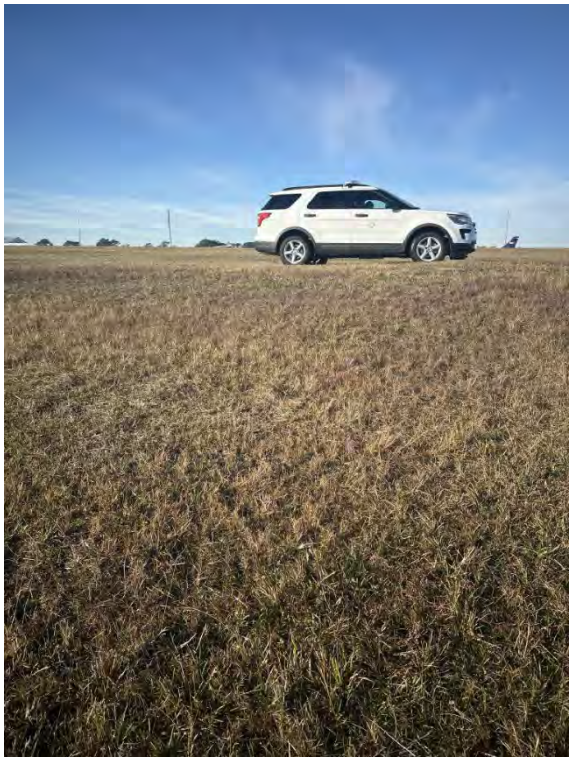
Typical Condition – Facing West

DP 2

Typical condition – Facing North

Typical Condition – Facing East

Typical Condition – Facing South



Typical Condition – Facing West

DP 3

Typical condition – Facing North

Typical condition – Facing East

Typical Condition – Facing South

Dry culvert – Facing West

DP 4

Typical condition – Facing North

Typical Condition – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

DP 5

Culvert– Facing North

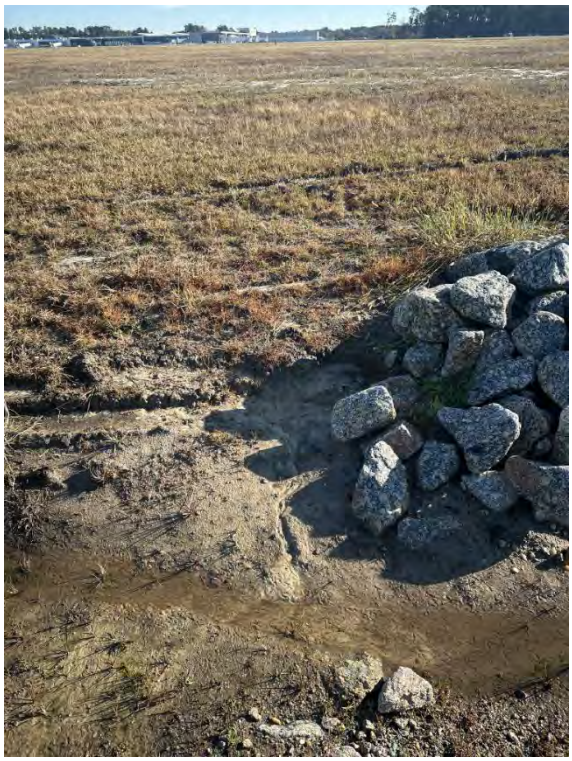
Water depth ~12” – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

DP 6

Typical condition – Facing North



Typical Condition – Facing East

Culvert; water depth ~ 1-3” – Facing South

Typical Condition – Facing West

DP 7

Typical condition – Facing North

Typical Condition – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

DP 8

Typical condition – Facing North

Culvert – Facing East

Water depth ~3-6” – Facing South

Typical Condition – Facing West

DP 9

Typical condition – Facing North

Typical Condition – Facing East

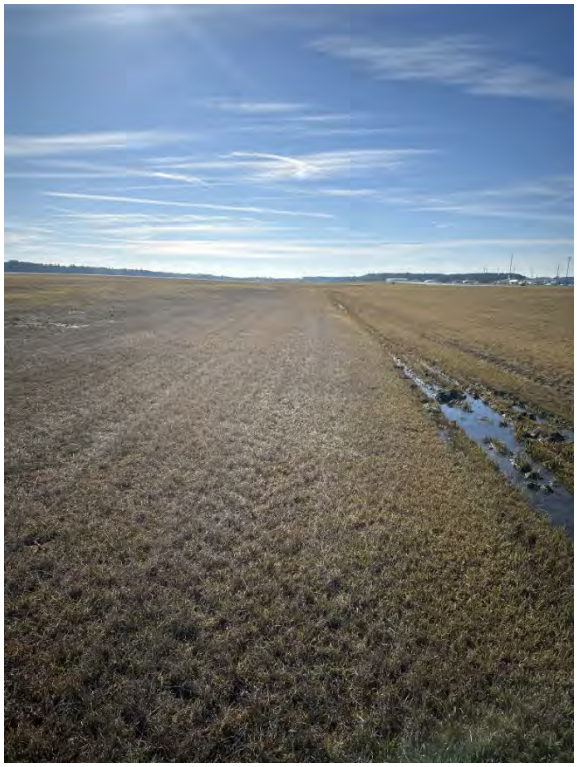
Typical Condition – Facing South

Typical Condition – Facing West

DP 10

Typical condition – Facing North

Typical Condition – Facing East



Typical Condition – Facing South

Typical Condition – Facing West

DP 11

Typical condition – Facing North

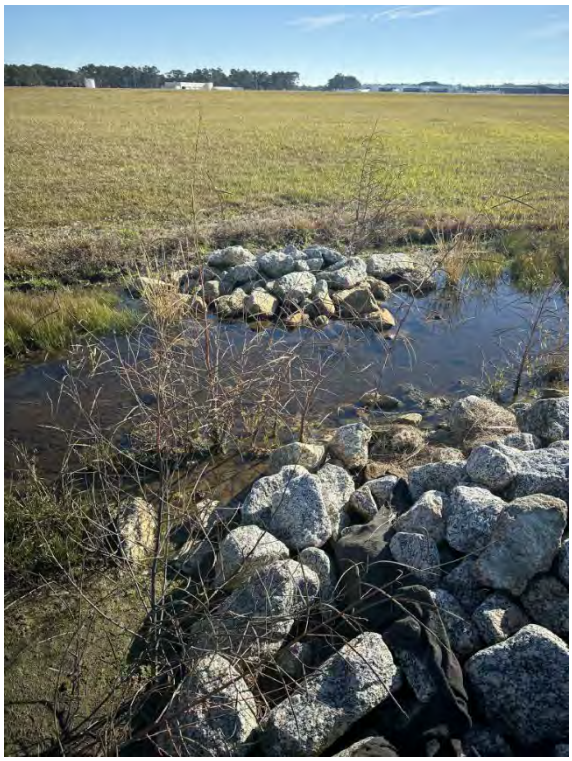
Typical Condition – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

DP 12

Typical condition – Facing North



Typical Condition – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

DP 13

Typical condition – Facing North

Typical Condition – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

DP 14

Culvert – Facing North

Typical Condition – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

DP 15

Culvert – Facing North

Algae; water depth ~ 3’ – Facing East

Culvert – Facing South

Typical Condition – Facing West

DP 16

Typical condition – Facing North

Typical Condition – Facing East

Typical Condition – Facing South

Culvert – Facing West

DP 17

Culvert – Facing North

Water depth ~3” – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

DP 18

Above culvert – Facing North

Typical Condition – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

DP 19

Culvert – Facing North

Typical Condition – Facing East

Typical Condition – Facing South

Typical Condition – Facing West

APPENDIX C

AIRCRAFT NOISE ANALYSIS

C.1 INTRODUCTION

This technical report presents the aircraft noise exposure for the Myrtle Beach International Airport (MYR or Airport) Runway Rehabilitation Environmental Assessment (EA). The noise analysis was prepared to comply with the *National Environmental Policy Act (NEPA) of 1969*; *Federal Aviation Administration (FAA) Order 1050.1F, Environmental Impacts: Policies and Procedures*; and *FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions*. The following describes the regulatory background, noise analysis methodology, noise model input data, and noise exposure results.

C.2 REGULATORY GUIDELINES AND AIRCRAFT NOISE MODEL

The noise analysis was developed using the FAA's Aviation Environmental Design Tool (AEDT) Version 3e. The AEDT is the required FAA tool to evaluate potential noise impacts from actions subject to NEPA. The AEDT produces aircraft noise contours that delineate areas of equal day-night average sound level (DNL). The DNL is a 24-hour time-weighted sound level that is expressed in A-weighted decibels. The FAA and other federal agencies use DNL as the primary measure of noise impact because it: correlates well with the results of attitudinal surveys regarding noise; increases with the duration of noise events; and accounts for an increased sensitivity to noise at night by increasing each noise event that occurs during nighttime hours (i.e., 10:00 p.m. to 6:59 a.m.) by 10 decibels (dB).

The AEDT defines a network of grid points at ground level around an airport. The model then selects the shortest distance from each grid point to each flight track and computes the noise exposure generated by each aircraft operation, along each flight track. Customizations are applied for atmospheric acoustical attenuation, acoustical shielding of the aircraft engines by the aircraft itself, and aircraft speed variations. The noise exposure levels for each aircraft are then summed at each grid location. The cumulative noise exposure levels at all grid points are then used to develop aviation noise exposure contours for selected compatible land use values (e.g., DNL 65, 70 and 75).

Guidelines regarding the compatibility of land uses within various DNL contour intervals are specified in *Appendix A of 14 Code of Federal Regulations (CFR) Part 150*. As shown in **Table 1**, the FAA identifies, as a function of annual (365-day average) DNL values, land uses which are compatible and land uses which are not compatible in an airport environ. The FAA determined that the all the land uses listed in the table are compatible with aircraft noise exposure below the 65 DNL contour. When evaluating land use compatibility, attention is therefore focused on land uses within the 65 DNL contour or greater.

Table 1: FAA Land Use Compatibility Guidelines – 14 CFR Part 150

Land Use	DNL Expressed in dB(A)					
	Below 65	65 70	70 75	75 80	70 85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail—building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade—general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

Table Notes: SLUCM=Standard Land Use Coding Manual. Y (Yes) = Land Use and related structures compatible without restrictions. N (No) = Land Use and related structures are not compatible and should be prohibited. NLR = Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.

25, 30, or 35=Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure. (1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year-round. However, the use of NLR criteria will not eliminate outdoor noise problems. (2) Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low. (3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low. (4) Measures to achieve NLR 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal level is low. (5) Land use compatible provided special sound reinforcement systems are installed. (6) Residential buildings require an NLR of 25. (7) Residential buildings require an NLR of 30. (8) Residential buildings not permitted. Source: 14 CFR Part 150

C.3 AFFECTED ENVIRONMENT

In the development of DNL contours, the AEDT uses both default and airport-specific factors. The default factors include meteorological data, engine noise levels, thrust settings, aircraft arrival and departure flight profiles and aircraft speed. The airport-specific factors include the number of aircraft operations, the types of aircraft, runway use, the assignment of aircraft operations to flight tracks, operational time (day/night), and, for departures, the stage (i.e., trip) length. The following describes these data.

C.3.1 Meteorological Data

The AEDT accounts for the influences of meteorological conditions on aircraft performance and atmospheric sound absorption. Meteorological conditions affect the transmission of aircraft noise through the air. The AEDT uses temperature and relative humidity to calculate atmospheric absorption coefficients, which in turn are used to adjust aircraft performance and sound propagation through the air. The 10-year average (2011 – 2020) meteorological conditions included in the AEDT for MYR are from the National Oceanic and Atmospheric Administration's Integrated Surface Database and are as follows:

- Temperature: 64.7° Fahrenheit
- Relative humidity: 73.6%

C.3.2 2023 Aircraft Operations

The aircraft operations[1] modeled for 2023 were obtained from the FAA's Air Traffic Activity System (ATADS) for fiscal year 2023 (October 1, 2022, through September 30, 2023). These data, by aircraft category, are provided in **Table 2**. As shown, the Airport's 2023 annual operations totaled 135,049, an average of approximately 370 operations per day.

[1] An aircraft operation is defined as one arrival or one departure.

Table 2: 2023 Annual Aircraft Operations

Air Carrier	Air Taxi	General Aviation	Military	Total
28,916	72,129	26,815	7,189	135,049

Source: FAA ATADS FY 2023

For the purposes of preparing DNL contours, operational data were segregated by aircraft type. The FAA's Traffic Flow Management System Count (TFMSC) data was used to develop the AEDT aircraft fleet mix. TFMSC data provides information on traffic counts by airport and includes the aircraft types operating at that airport. The TFMSC data for MYR was reviewed and each aircraft type was assigned the corresponding AEDT aircraft type. As required the preparation of DNL contours, annual aircraft operations were converted to annual average-day operations

Aircraft operations modeled in the AEDT are assigned as occurring during daytime (7:00 a.m. to 9:59 p.m.) or nighttime (10:00 p.m. to 6:59 a.m.). The calculation of DNL includes an additional weight of 10 decibels (dB) for those operations occurring at night. The time of day for operations was based on air carrier schedules and FlightAware, a commercial vendor that collects and manages aircraft operations and flight track data data. All military operations were modeled during the day. The 2023 modeled aircraft operations and fleet are provided in **Table 3.**

Table 3: 2023 Aircraft Operations and Fleet Mix

Aircraft Type (s)	AEDT Aircraft	Annual Operations	Average Annual Day		
			Day	Night	Total
Airbus A320-200 Series	A320-211	6,438	15.96	1.68	17.64
Bombardier CRJ-700/900	CRJ9-ER	5,827	14.45	1.52	15.96
Airbus A319	A319-131	4,020	9.97	1.05	11.01
Boeing 737-700	737700	2,957	7.33	0.77	8.10
Airbus A320 Neo	A320-271N	2,798	6.94	0.73	7.67
Boeing 737-800/900	737800	2,164	5.37	0.56	5.93
Boeing 717-200	717200	1,831	4.54	0.48	5.02
Embraer 175	EMB175	1,013	2.51	0.26	2.78
Airbus A321/A321Neo	A321-232	953	2.36	0.25	2.61
Boeing 737 Max 8/Max 9	7378MAX	915	2.27	0.24	2.51
Embraer 170	EMB170	760	1.88	0.20	2.08
Embraer ERJ-145	EMB145	334	0.83	0.09	0.92
Raytheon/Beech Beechjet 400	MU3001	330	0.88	0.03	0.90
Hawker 800, Lear 31/35/45/60/75	LEAR35	322	0.86	0.03	0.88
Cessna 525 Citation CJ1/CJ2/CJ3/CJ4	CNA525C	286	0.76	0.02	0.78
Citation II/Bravo, Phenom 300, PC-24	CNA55B	282	0.75	0.02	0.77
Bombardier Challenger 300/600/601/604	CL600	257	0.68	0.02	0.70
Cessna 560 V/Ultra/Encore	CNA560E	248	0.66	0.02	0.68

Aircraft Type (s)	AEDT Aircraft	Annual Operations	Average Annual Day		
			Day	Night	Total
Cessna Sovereign/Latitude/Longitude	CNA680	242	0.64	0.02	0.66
Cessna 560 Citation XLS	CNA560XL	233	0.62	0.02	0.64
Cirrus Vision, Phenom 100	CNA510	214	0.57	0.02	0.59
Cessna 750 Citation X, Falcon 2000	CNA750	150	0.40	0.01	0.41
Gulfstream GV / 500	GV	111	0.29	0.01	0.30
Gulfstream IV/G400	GIV	110	0.29	0.01	0.30
Dassault Falcon 50/900	FAL900EX	62	0.16	0.01	0.17
Eclipse 500, Citation Mustang	ECLIPSE500	58	0.15	0.00	0.16
Israel IAI-1125, Gulfstream 150	IA1125	37	0.10	0.00	0.10
Bombardier Global 5000	BD-700-1A11	8	0.02	0.00	0.02
King Air/Super King Air	DHC6	1,050	2.79	0.09	2.88
Shorts 360	SD330	638	1.70	0.05	1.75
Dash 8-300. ATR 42/72	DHC830	563	1.50	0.05	1.54
Beechcraft 1900	1900D	528	1.40	0.04	1.45
Pilatus PC-12, Cessna 208, Socata TBM9	CNA208	409	1.09	0.03	1.12
Diamond DA40, Mooney, Bonanza 36	GASEPV	14,389	38.24	1.18	39.42
Cirrus SR20/22/22T	COMSEP	2,879	7.65	0.24	7.89
Baron 58, Cessna 310/414/421	BEC58P	2,037	5.41	0.17	5.58
Cessna 172/177	CNA172	2,351	6.25	0.19	6.44
Piper 28 Cherokee Series, Beech 23	GASEPF	889	2.36	0.07	2.44
Cessna 182/185	CNA182	608	1.62	0.05	1.67
Robinson R-44	R44	68,559	187.83	0.00	187.83
Boeing P-8 Poseidon	737800	1,078	2.95	0.00	2.95
C-130 Hercules	C130E	1,078	2.95	0.00	2.95
Raytheon Texan 2	CNA208	1,078	2.95	0.00	2.95
Lockheed F-16 Fighting Falcon	F16PW0	719	1.97	0.00	1.97
Beech Super King Air 350	DHC6	719	1.97	0.00	1.97
Boeing KC-135 Stratotanker	KC-135	719	1.97	0.00	1.97
Boeing 707-300	707320	360	0.99	0.00	0.99
Boeing C-17 Globemaster 3	C17	360	0.99	0.00	0.99
Northrop T-38 Talon	T-38A	1,078	2.95	0.00	2.95
Total		**135,049**	**359.77**	**10.23**	**370.00**

Source: RS&H; FAA ATADS; FAA TFMSC

C.3.4 Runway Use and Aircraft Flight Tracks

Runway use refers to the frequency with which aircraft utilize each runway end for departures and arrivals. The more often a runway is used, the more noise is generated in areas located off each end of that runway. Wind direction and speed primarily dictate the runway directional use (or flow) at airports. Previous coordination with MYR and ATCT staff indicated aircraft operated on Runway 18 51% of the time and on Runway 36 49% of the time.

Flight tracks refer to the route an aircraft follows when arriving to or departing from a runway. The location of flight tracks is a key factor in determining the geographic distribution of noise on the ground. The AEDT uses airport-specific flight tracks and vertical flight profiles to compute three-dimensional flight paths for each modeled aircraft operation. The "default" AEDT vertical profiles, which consist of altitude, speed, and thrust settings, are compiled from data provided by aircraft manufacturers. Previous coordination with MYR and ATCT staff resulted in the aircraft flight track locations. The arrival and departure tracks are primarily centered on the runway close-in to the runway ends. The noise modeling for this EA used those same flight tracks.

C.3.5 2023 DNL Contours

The 2023 65-75 DNL contours are provided on **Figure 1. Table 4** identifies the areas within the DNL contour ranges. As shown in the table, the total area within the 65 DNL and greater contour is 875 acres and is primarily located within the limits of the Airport property boundary. The contours extend off-Airport property southeast of the threshold of Runway 36 along South Kings Highway. This area include two helipads used for helicopter tours of the beaches and surrounding areas.

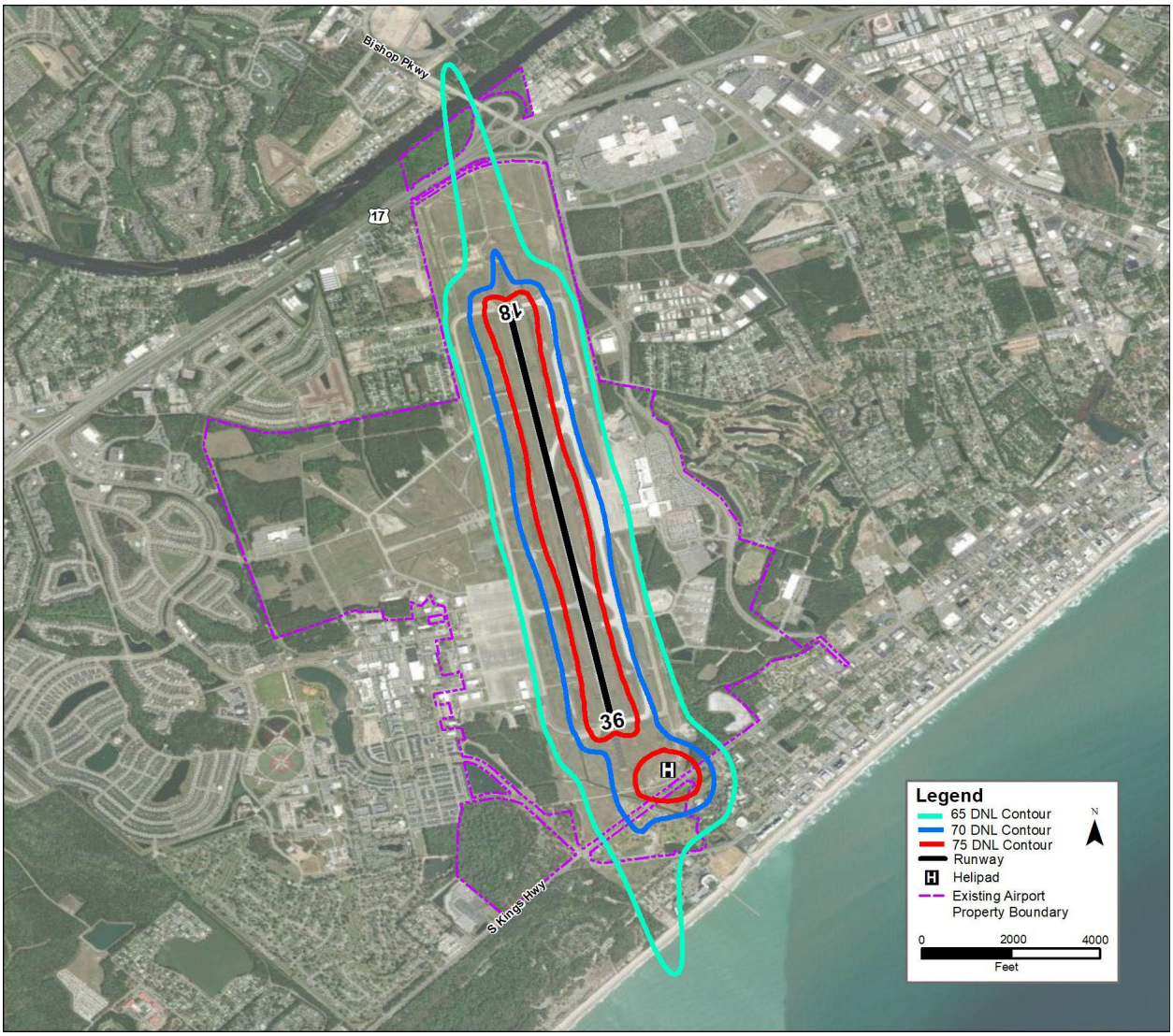
Twelve residential properties south of the threshold of Runway 36 are located within the 2023 65 DNL contour. These properties include a mix of single family and multi-family residences.

Table 4: Area Within 2023 DNL Contour Intervals

DNL Contour Range	Area (acres)
65-70	458
70-75	209
>75	208
Total	875

Source: RS&H, 2023

Figure 1: 2023 DNL Contours



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, RS&H, 2023

C.4 ENVIRONMENTAL CONSEQUENCES

This section describes the methodology, FAA significance thresholds pertaining to noise and compatible land uses, and the potential effects that the Proposed Project would have on aircraft noise exposure compared to the No Action Alternative for the year 2028.

C.4.1 Methodology and Significance Threshold

The methodology for assessing noise exposure included preparing DNL contours for the No Action Alternative and Proposed Project for the year 2028. The noise exposure contours were developed to assess if a significant noise impact would occur.

Per FAA Order 1050.1F, *"a significant noise impact would occur if the action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is [already] exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.*" Noise sensitive areas generally include residential neighborhoods; educational, health, and religious facilities; and cultural and historic sites.

C.4.2 Future Aircraft Operations

The 2028 aircraft operations were obtained from the FAA's Terminal Area Forecast (TAF) issued February 2023. These data, by aircraft category, are provided in **Table 5**. As shown, the 2028 annual operations are forecast to total 145,833, an average of approximately 400 operations per day.

The 2028 aircraft fleet mix was determined by multiplying the percentages by aircraft type that occurred in 2023 by the FAA TAF operations forecast to occur in 2028. The runway use, flight tracks, flight track use, and time of day modeled for 2028 were the same as the 2023 condition. The 2028 aircraft operations and fleet mix are shown in **Table 6.**

Table 5: 2028 Annual Aircraft Operations

Air Carrier	Air Taxi & Commuter	General Aviation	Military	Total
35,744	74,542	28,166	7,381	145,833

Source: FAA TAF, Issued February 2023

Table 6: 2028 Aircraft Operations and Fleet Mix

Aircraft Type (s)	AEDT Aircraft	Annual Operations	Average Annual Day		
			Day	Night	Total
Airbus A320-200 Series	A320-211	7,958	19.73	2.07	21.80
Bombardier CRJ-700/900	CRJ9-ER	7,203	17.86	1.87	19.73
Airbus A319	A319-131	4,969	12.32	1.29	13.61
Boeing 737-700	737700	3,655	9.06	0.95	10.01
Airbus A320 Neo	A320-271N	3,459	8.58	0.90	9.48
Boeing 737-800/900	737800	2,675	6.63	0.70	7.33
Boeing 717-200	717200	2,263	5.61	0.59	6.20
Embraer 175	EMB175	1,252	3.10	0.33	3.43
Airbus A321/A321Neo	A321-232	1,178	2.92	0.31	3.23
Boeing 737 Max 8/Max 9	7378MAX	1,131	2.80	0.29	3.10

Aircraft Type (s)	AEDT Aircraft	Annual Operations	Average Annual Day		
			Day	Night	Total
Embraer 170	EMB170	771	1.91	0.20	2.11
Embraer ERJ-145	EMB145	339	0.84	0.09	0.93
Raytheon/Beech Beechjet 400	MU3001	335	0.89	0.03	0.92
Hawker 800, Lear 31/35/45/60/75	LEAR35	327	0.87	0.03	0.90
Cessna 525 Citation CJ1/CJ2/CJ3/CJ4	CNA525C	290	0.77	0.02	0.79
Citation II/Bravo, Phenom 300, PC-24	CNA55B	286	0.76	0.02	0.78
Bombardier Challenger 300/600/601/604	CL600	261	0.69	0.02	0.72
Cessna 560 V/Ultra/Encore	CNA560E	252	0.67	0.02	0.69
Cessna Sovereign/Latitude/Longitude	CNA680	245	0.65	0.02	0.67
Cessna 560 Citation XLS	CNA560XL	236	0.63	0.02	0.65
Cirrus Vision, Phenom 100	CNA510	217	0.58	0.02	0.59
Cessna 750 Citation X, Falcon 2000	CNA750	152	0.40	0.01	0.42
Gulfstream GV / 500	GV	113	0.30	0.01	0.31
Gulfstream IV/G400	GIV	112	0.30	0.01	0.31
Dassault Falcon 50/900	FAL900EX	63	0.17	0.01	0.17
Eclipse 500, Citation Mustang	ECLIPSE500	59	0.16	0.00	0.16
Israel IAI-1125, Gulfstream 150	IA1125	38	0.10	0.00	0.10
Bombardier Global 5000	BD-700-1A11	8	0.02	0.00	0.02
King Air/Super King Air	DHC6	1,065	2.83	0.09	2.92
Shorts 360	SD330	647	1.72	0.05	1.77
Dash 8-300. ATR 42/72	DHC830	571	1.52	0.05	1.56
Beechcraft 1900	1900D	535	1.42	0.04	1.47
Pilatus PC-12, Cessna 208, Socata TBM9	CNA208	415	1.10	0.03	1.14
Diamond DA40, Mooney, Bonanza 36	GASEPV	16,601	44.12	1.36	45.48
Cirrus SR20/22/22T	COMSEP	2,920	7.76	0.24	8.00
Baron 58, Cessna 310/414/421	BEC58P	2,066	5.49	0.17	5.66
Cessna 172/177	CNA172	2,737	7.27	0.22	7.50
Piper 28 Cherokee Series, Beech 23	GASEPF	901	2.39	0.07	2.47
Cessna 182/185	CNA182	617	1.64	0.05	1.69
Robinson R-44	R44	69,531	190.50	0.00	190.50
Boeing P-8 Poseidon	737800	1,107	3.03	0.00	3.03
C-130 Hercules	C130E	1,107	3.03	0.00	3.03
Raytheon Texan 2	CNA208	1,107	3.03	0.00	3.03
Lockheed F-16 Fighting Falcon	F16PW0	738	2.02	0.00	2.02
Beech Super King Air 350	DHC6	738	2.02	0.00	2.02
Boeing KC-135 Stratotanker	KC-135	738	2.02	0.00	2.02
Boeing 707-300	707320	369	1.01	0.00	1.01
Boeing C-17 Globemaster 3	C17	369	1.01	0.00	1.01
Northrop T-38 Talon	T-38A	1,107	3.03	0.00	3.03
Total		**145,833**	**387.29**	**12.21**	**399.51**

Source: RS&H; FAA TAF 2023

C.4.3 2028 No Action Alternative DNL Contours

Table 7 identifies the areas within the DNL contour ranges. As shown in the table, the total area within the 65 DNL and greater contour is 927 acres and is primarily located within the limits of the Airport property boundary. Twelve residential properties south of the threshold of Runway 36 are located within the 2028 No Action Alternative 65 DNL contour. These properties include a mix of single family and multi-family residences. The 2028 No Action Alternative 65-75 DNL contours are provided on **Figure 2.**

Table 7: Area Within 2028 No Action Alternative DNL Contour Intervals

DNL Contour Range	Area (acres)
65-70	492
70-75	220
>75	215
Total	927

Source: RS&H, 2023

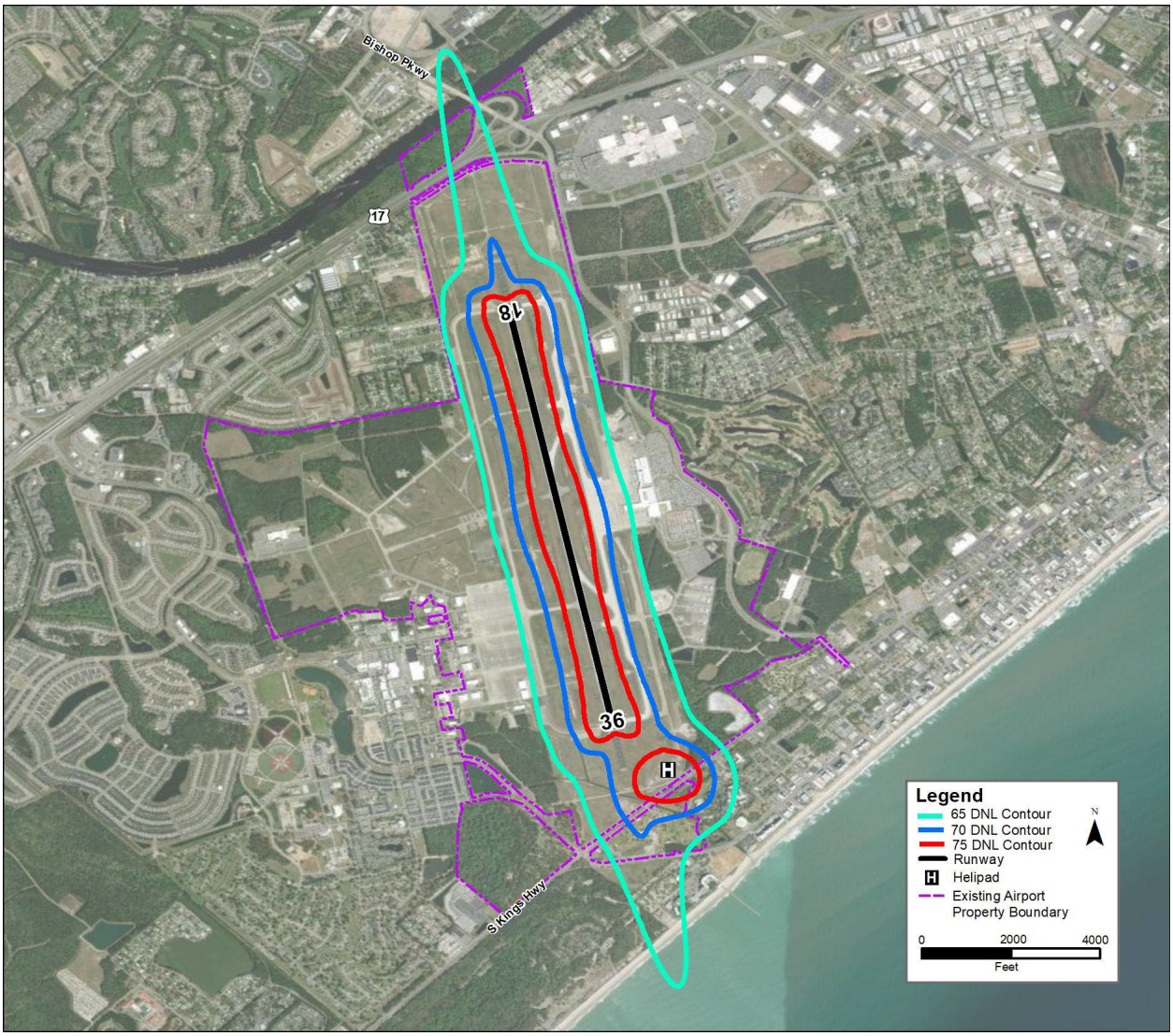
C.4.4 2028 Proposed Project DNL Contours

When compared to the No Action Alternative, the Proposed Project would not result in an increase in aircraft operations (takeoffs and landings), and the existing runway configuration, arrival/departures procedures, and runway use percentages would remain unchanged. Therefore, there would be no change in aircraft noise exposure and there would be no significant noise impacts.

C.5 SUPPLEMENTAL NOISE INFORMATION

The following includes noise exposure information for the temporary four-month construction period. In an EA, a significance noise impact is determined by comparing the future No Action Alternative with the future Proposed Project. There is no significance threshold for aircraft noise during a temporary period, therefore, the future Proposed Project is not compared to the future No Action Alternative. The supplemental noise information is provided to show how noise exposure would change in 2028 with the temporary construction period and is for informational purposes only.

Figure 2: 2028 No Action Alternative and Proposed Project DNL Contours

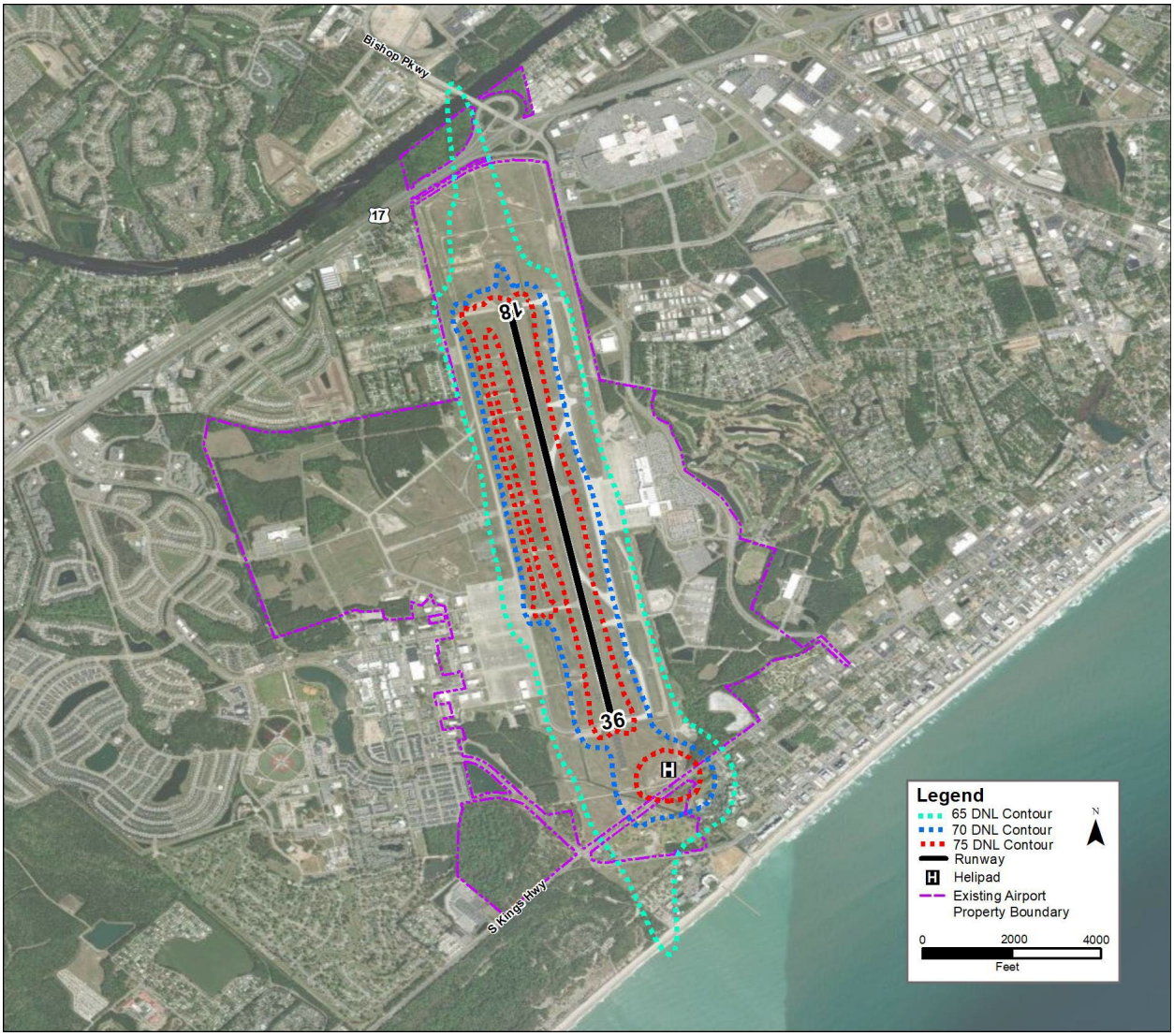


Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, RS&H, 2023

DNL contours are based on an average-annual day. The modeling of the DNL contours with the temporary construction period included aircraft operating on the Airport's existing runway for eight months and operating on the temporary runway for four months in 2028. The flight tracks modeled on the temporary runway followed a straight-in and straight-out path in the immediate vicinity of the runway ends. This is consistent with the flight tracks modeled on the Airport's existing runway. The resulting 65-75 DNL contours are shown on **Figure 3**.

Table 8 identifies the areas within the DNL contour ranges. As shown in the table, the total area within the 65 DNL and greater contour is 852 acres and is primarily located within the limits of the Airport property boundary.

Figure 3: 2028 Annualized DNL Contours With Temporary Construction Period



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, RS&H, 2023

Table 8: Area Within 2028 Annualized DNL Contours With the Temporary Construction Period

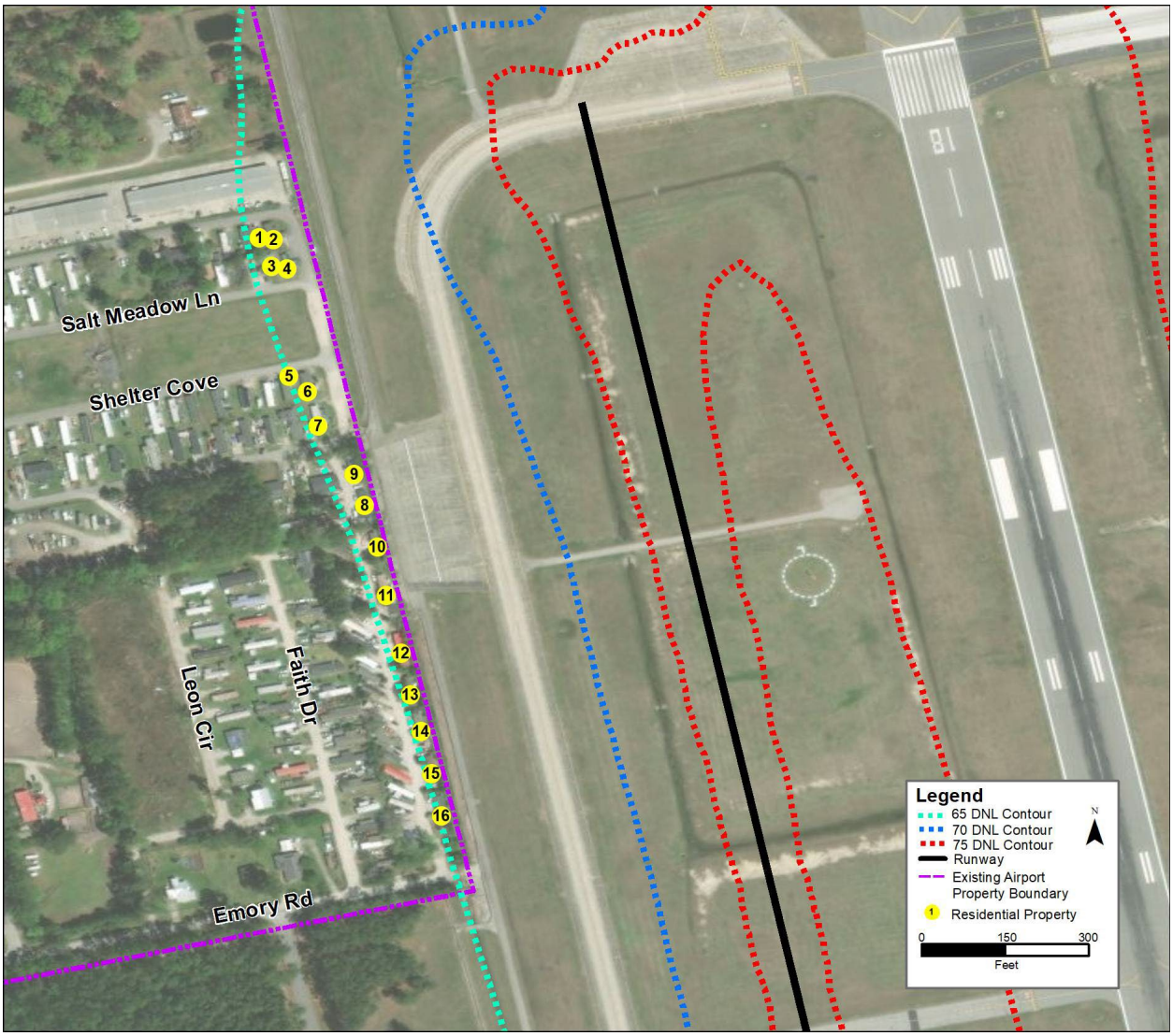
DNL Contour Range	Area (acres)
65-70	426
70-75	220
>75	206
Total	852

Source: RS&H, 2023

Sixteen mobile/manufactured residences are within the 65 DNL contour just west of the Runway 18 threshold. These properties would experience a temporary increase (4 months) in noise exposure as the temporary runway is closer to the properties when compared to the existing runway. South of the Runway 36 threshold, 11 residential properties are located within the 65 DNL contour. All of the properties would experience a temporary decrease (4 months) in noise as the temporary runway being about a half a mile farther away from these properties.

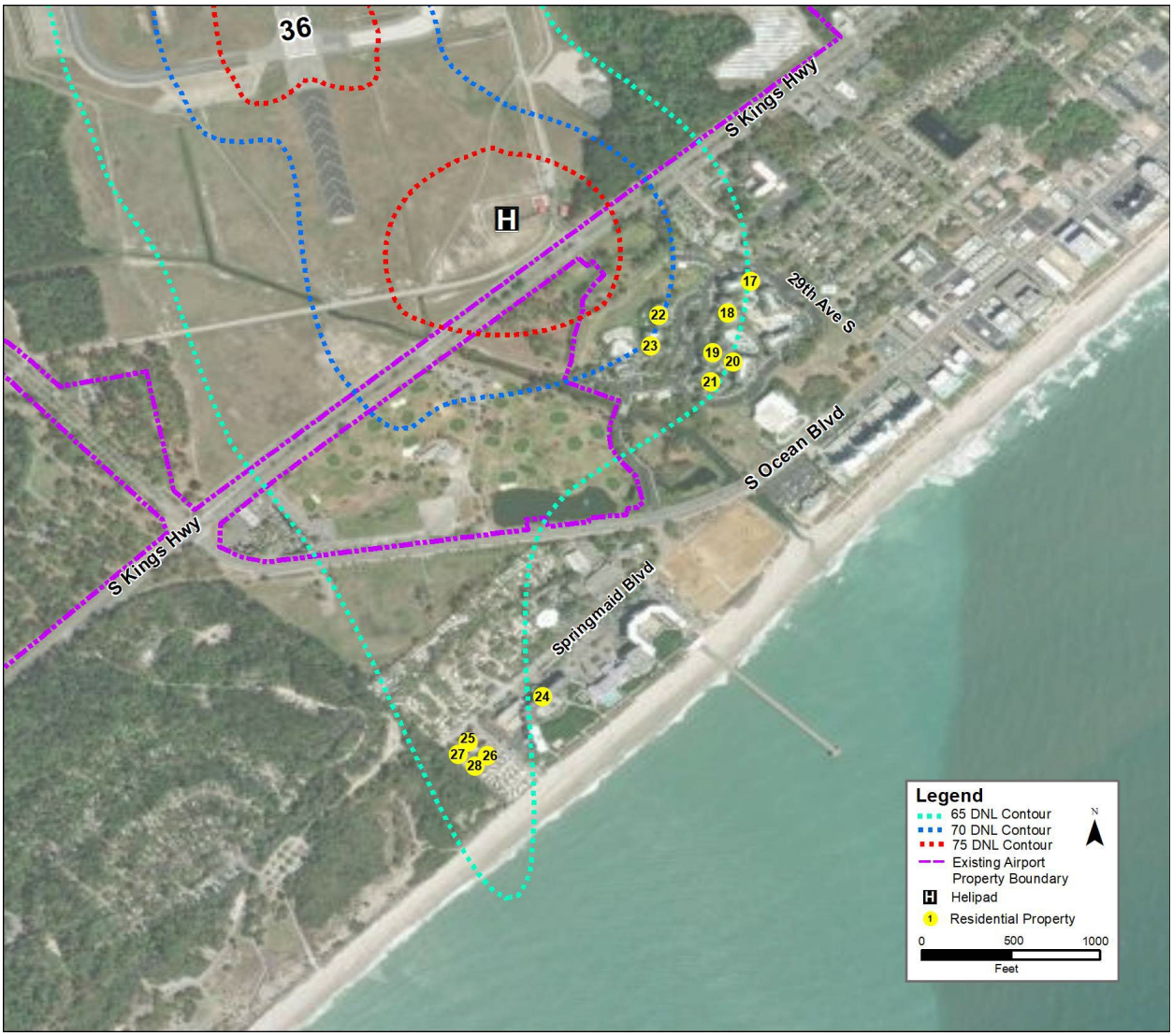
Grid points in the AEDT were placed at the all the residential properties and are shown on **Figure 4**. The properties within the 65 DNL contour west and south of the Airport are shown on **Figures 4** and **5** respectively. The DNL values with the temporary construction period at each property are included in **Table 9**.

Figure 4: 2028 Residential Properties Experiencing a 4-Month Temporary Increase in Noise



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, RS&H, 2023

Figure 5: 2028 Residential Properties Experiencing a 4-Month Temporary Decrease in Noise



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, RS&H, 2023

Table 9 :DNL Values at Residential Properties Within the Annualized Temporary Construction Period 65 DNL Contour

ID*	DNL
1	65.26
2	65.56
3	65.40
4	65.70
5	65.01
6	65.25
7	65.21
8	65.45

ID*	DNL
9	65.49
10	65.41
11	65.29
12	65.25
13	65.16
14	65.15
15	65.10
16	65.07
17	64.81
18	65.85
19	65.96
20	64.80
21	65.38
22	70.23
23	69.62
24	64.48
25	66.11
26	65.97
27	65.94
28	65.94

Note: * - IDs shown in Figures 4 and 5.

Source: RS&H, 2023

APPENDIX D

AGENCY COORDINATION

DATE

[NAME]
[AGENCY]
[ADDRESS LINE 1]
[ADDRESS LINE 2]
Sent via email: [EMAIL}

RE: Runway 18-36 Rehabilitation Environmental Assessment
Early Agency Coordination
Myrtle Beach International Airport
Myrtle Beach, South Carolina

Dear [INSERT],

RS&H, Inc., on behalf of the Horry County Department of Airports (Airport Sponsor) and in coordination with the Federal Aviation Administration (FAA), is undertaking an Environmental Assessment (EA) for the reconstruction of Runway 18-36 at Myrtle Beach International (MYR or Airport) located in Myrtle Beach, South Carolina (see **Figure 1**, attached). This letter informs you about initiating the EA and seeks your agency's input and comments.

The Proposed Project is the permanent full depth and width runway pavement rehabilitation of Runway 18-36 (see **Figure 2**, attached). Connected actions to the Proposed Project include the construction of a 6,800-foot temporary runway between Runway 18-36 and the full parallel Taxiway B. In addition, the Airport Sponsor proposes the construction of taxiway connectors (B3 and B4), 30-foot wide temporary runway shoulders, runway edge lighting, and stormwater system improvements. As shown in Figure 2, the temporary runway starts at taxiway connector B5 and ends at taxiway connector B2. After Runway 18-36 rehabilitation is complete, the temporary runway would be converted into a taxiway.

The project is needed at the Airport because of the failing runway subbase materials contributing to the accelerated degradation of runway pavement and increase in foreign object debris (FOD) on the runway. The Proposed Project would:

- improve the safety of the runway, and
- extend the life of Runway 18-36 for approximately 20 years.

All construction would occur on Airport property. Construction of the temporary runway is scheduled to begin in 2026. In the fall of 2028, Runway 18-36 rehabilitation construction would begin. For 90 to 120 days of construction, all aircraft operations at MYR would takeoff and land on the temporary runway. Runway 18-36 would reopen in 2029.

The Proposed Project would not increase the number of aircraft operations nor change the fleet mix of aircraft operating at MYR. As described, aircraft operations would shift to the temporary runway for 90 to 120 days.

Funding for the Proposed Project would come from the FAA Airport Improvement Program, Bipartisan Infrastructure Law funds, and Horry County Department of Airports funds.

The Airport Sponsor will request the FAA's unconditional approval of the Proposed Project on its Airport Layout Plan. This request is a Federal action, and through the requirement for the Authority to meet FAA grant assurances. RS&H, Inc. is the Airport Sponsor's consultant preparing the EA for the Proposed Project.

In accordance with the National Environmental Policy Act (NEPA) and *FAA Orders 1050.1F, Environmental Impacts: Policies and Procedures* and *5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions of Airport Actions*, the EA will analyze the potential environmental effects of the Proposed Project and reasonable alternatives. Direct and indirect project study areas have been developed for the EA (see **Figure 3**). Preliminary environmental analysis indicates that the Proposed Project would not result in significant impacts.

We are sending you this early notification letter to:

1. Advise your agency of the preparation of the EA;
2. Request any relevant information that your agency may have regarding the project site or environs; and
3. Solicit early comments regarding potential environmental, social, and economic issues for consideration during the preparation of the EA.

You may send any information and comments to me via email at David.Alberts@rsandh.com. We would appreciate your prompt response within 30 days.

On behalf of the Horry County Department of Airports, I thank you for your interest in this project. I look forward to working with you as we prepare the EA. If you have any questions or need additional information regarding the Proposed Project or EA, please do not hesitate to contact me at (904) 256-2469 or at the email address previously provided.

Sincerely,

David Alberts
Senior Aviation Environmental Planner
RS&H, Inc.

Attachments

Figure 1: Airport Location
Figure 2: Proposed Project
Figure 3: EA Direct and Indirect Project Study Areas

Figure 1: Airport Location

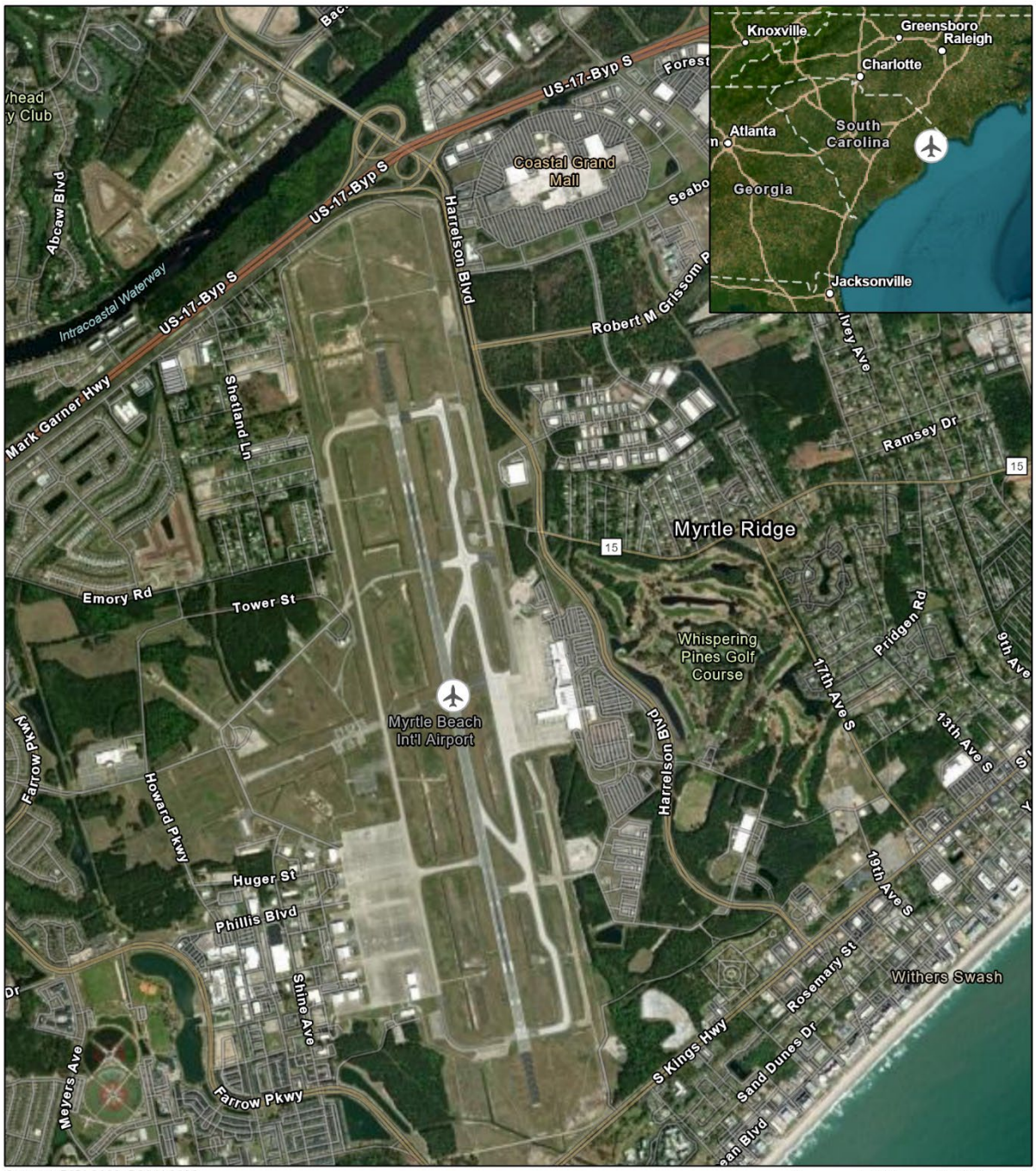
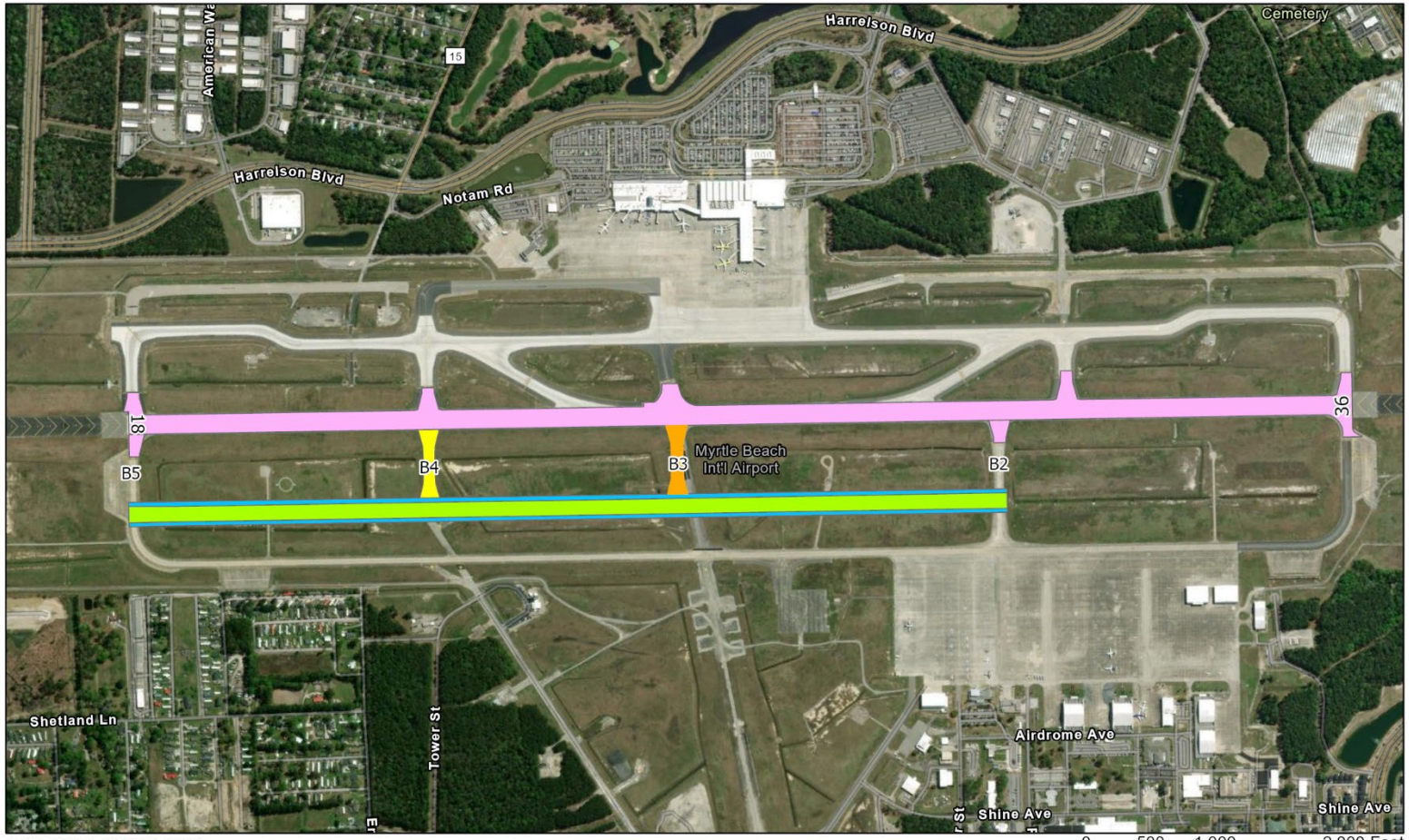


Figure 2: Proposed Project



Legend

- Runway 18-36 Rehabilitation
- Temporary Runway
- Temporary Runway Shoulders (30 feet)
- Taxiway Connector Rehabilitation
- Taxiway Connector Construction

RS&H

N

Figure 3: EA Direct and Indirect Project Study Areas

MYR Runway Rehab EA
Agency Distribution List

Federal Agencies			
Contact	**Title**	**Name**	**Email**
USEPA	EPA Region 4 - NEPA Program Manager	Kajumba Ntale	kajumba.ntale@epa.gov
USFWS - Southeast Region	Acting Regional Director	Mike Oetker	michael_oetker@fws.gov
USACE - Charleston District, Conway Regulatory Office			sac.rd.Conway@usace.army.mil
State Agencies			
Contact	**Title**	**Name**	**Email**
SC Aeronautics Commission (SCAC)	Executive Director	Gary Siegfried	gsiegfried@aero.sc.gov
SC Department of Health and Environmental Control (Air, Water, Land, Coastal)	Director, Environmental Affairs	Myra Reece	reecemc@dhec.sc.gov
SCDHEC Bureau of Environmental Health Services	Pee Dee Myrtle Beach Office		BEHS-MyrtleBeach-Admin@dhec.sc.gov
SC Department of Transportation (DOT)	NEPA Division Manager	David Kelly	kellydp@scdot.org
SC Office of Coastal Resource Management (OCRM)	Coastal Zone Consistency	Michele Hartung	hartunml@dhec.sc.gov
Local Agencies			
Contact	**Title**	**Name**	**Email**
Horry County Planning and Zoning	Department Head	David Jordan	Jordan.David@horrycountysc.gov
Horry County Infrastructure & Regulation	Assistant County Administrator	David Gilreath	hcg.Administrator@horrycountysc.gov
City of Myrtle Beach - Planning & Zoning	Director and Zoning Administrator	Kenneth May	kmay@cityofmyrtlebeach.com
City of Myrtle Beach - Public Works	Director of Public Works	Janet Curry	jcurry@cityofmyrtlebeach.com
City of Myrtle Beach - Engineering Division	Engineering Division Superintendent	John Johnson	jcjohnson@cityofmyrtlebeach.com

Fesanco, Michael

From: SAC.RD.Conway <SAC.RD.Conway@usace.army.mil>
Sent: Thursday, November 9, 2023 2:04 PM
To: Fesanco, Michael
Subject: RE: MYR Runway 18-36 Rehabilitation Environmental Assessment Early Agency Coordination Letter

Thank you for your interest. The Corps has no comments at this time.

Thank you,

Barbie Gore
Regulatory Program Technician
Northeast Branch -- Charleston District
843-365-4239

Complete our Regulatory Service Survey at:
https://regulatory.ops.usace.army.mil/customer-service-survey/

From: Fesanco, Michael <Michael.Fesanco@rsandh.com>
Sent: Wednesday, November 1, 2023 1:29 PM
To: SAC.RD.Conway <SAC.RD.Conway@usace.army.mil>
Subject: [Non-DoD Source] MYR Runway 18-36 Rehabilitation Environmental Assessment Early Agency Coordination Letter

To Whom It May Concern,

On behalf of the Horry County Department of Airports and RS&H, Inc., I am pleased to provide the *Runway 18-36 Rehabilitation Environmental Assessment* early agency coordination letter at Myrtle Beach International Airport (MYR). Your review and comments of the attached letter are greatly appreciated. If you have any questions, please contact Dave Alberts (RS&H) as described in the attachment.

Thank you in advance of your input.

Michael Fesanco
Aviation Environmental Specialist
10748 Deerwood Park Blvd South, Jacksonville FL 32256
904-256-2225
Michael.Fesanco@rsandh.com
rsandh.com | Facebook | Twitter | LinkedIn | Blog

Fesanco, Michael

From: Gilreath, David <Gilreath@horrycountysc.gov>
Sent: Wednesday, November 15, 2023 9:10 AM
To: Fesanco, Michael
Cc: Gilreath, David
Subject: RE: MYR Runway 18-36 Rehabilitation Environmental Assessment Early Agency Coordination Letter
Attachments: MYR Rwy Rehab EA Agency Early Coordination Letter I&R.pdf

Michael,
Thank you for the update regarding the needed improvements to the Myrtle Beach International Airport. This airport is vital to the economic vitality of Horry County as a whole. Horry County Government offers its full support of the proposed runway improvements and is prepared to offer any assistance needed to advance this project.

Please let me know if you have any questions or need any data that we may have.

Sincerely,
David Gilreath, P.E. | Assistant County Administrator
Horry County Government
4401 Privetts Road, Conway, South Carolina 29526
Tel 843.915.5160 | Fax 843.365.0671 | gilreath@horrycountysc.gov
www.horrycountysc.gov

From: Fesanco, Michael <Michael.Fesanco@rsandh.com>
Sent: Wednesday, November 1, 2023 03:02 PM
To: Web HCG - Administrator <hcg.Administrator@horrycountysc.gov>
Subject: MYR Runway 18-36 Rehabilitation Environmental Assessment Early Agency Coordination Letter

David Gilreath,
On behalf of the Horry County Department of Airports and RS&H, Inc., I am pleased to provide the *Runway 18-36 Rehabilitation Environmental Assessment* early agency coordination letter at Myrtle Beach International Airport (MYR). Your review and comments of the attached letter are greatly appreciated. If you have any questions, please contact Dave Alberts (RS&H) as described in the attachment.

Thank you in advance of your input.

Michael Fesanco
Aviation Environmental Specialist
10748 Deerwood Park Blvd South, Jacksonville FL 32256
904-256-2225

Michael.Fesanco@rsandh.com
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