

Species Conclusions Table

Project Manager: Brian Denson	Project Name: NASA Wallops Beach Re-nourishment
Date: November 16, 2018	Project Number: NAO-1992-1455

Project Description: Dredging and excavation will be undertaken in order to provide material for beach nourishment and the installation of breakwaters along NASA Wallops Island Flight Facility.

Species Under the Jurisdiction of FWS:

Species/Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Species Info / Habitat Description	Notes / Determination
Northern long-eared bat (Myotis septentrionalis)	No suitable habitat present	No effect	<p>"Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible.</p> <p>During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds."</p>	All work taking place along shoreline and within the Atlantic ocean. No trees are to be cut. Coordination with USFWS was undertaken by NASA, the lead federal agency.
Piping plover (Charadrius melodus)	Suitable habitat present, species not present	Not likely to adversely affect	<p>"Piping plovers occur in three disjunct populations in North America: Northern Great Plains, Great Lakes, and Atlantic Coast. The piping plover is a 5 ½ inch long" The piping plover nesting season is from late April to late July with one brood raised per year. If there is a disturbance or the nest is lost, the birds may reneest. Plovers nest on beaches, dunes, and washover areas. They also nest on areas where suitable dredged material is deposited."</p>	As the lead federal agency NASA is coordinating with USFWS directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.

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<p>Red Knot (<i>Calidris canutus rufa</i>)</p>	<p>Suitable habitat present, species not present</p>	<p>Not likely to adversely affect</p>	<p>"Red knots migrate long distances between nesting areas in mid- and high arctic latitudes and southern nonbreeding habitats as far north as the coastal United States (low numbers) and southward to southern South America. Populations including subspecies <i>rufa</i> migrate in large flocks northward through the contiguous United States mainly March-early June, southward July-August (Harrington 2001). Arrival in breeding areas occurs in late May or early June; most have departed breeding areas by mid-August. The migration stops of red knots that spend the boreal winter in Tierra del Fuego and Patagonian Argentina (subspecies <i>rufa</i>) are mainly along the Atlantic coast of South America (mainly Chile, Argentina, and Brazil) and the Atlantic and Gulf of Mexico coasts of North America (González et al. 2006), including staging areas on the coasts of Hudson and James bays (Harrington 2001). Knots that visit Delaware Bay in spring come mostly from South America, and these have strong fidelity to migration stopover sites; those that winter in Florida (subspecies?) are underrepresented during migration in New Jersey and Massachusetts. This species typically makes long flights between stops (Hayman et al. 1986). See Piersma and Davidson (1992) for information on knot migration."* (NatureServe. 2014. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available http://explorer.natureserve.org. (Accessed: September 29, 2014).)</p>	<p>As the lead federal agency NASA is coordinating with USFWS directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.</p>
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Roseate tern (<i>Sterna dougallii dougallii</i>)	Suitable habitat present, species not present	Not likely to adversely affect	"Roseate terns breed in colonies almost exclusively on small offshore islands, rarely on large islands. The northeastern colonies are on rocky offshore islands, barrier beaches, or salt marsh islands. Most colonies are close to shallow water fishing sites with sandy bottoms, bars, or shoals. The Caribbean birds nest in relatively open areas, often with no cover nearby. They breed on a variety of small cays or islands with rocky, grassy, coral rubble, or sand substrate. There is little information on the habitat of the wintering range. Some birds have been found roosting on sandbars or beaches at river mouths, estuaries, or ocean front. "	As the lead federal agency NASA is coordinating with USFWS directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.
Seabeach amaranth (<i>Amaranthus pumilus</i>)	No suitable habitat present	No effect	"Seabeach amaranth occurs on barrier island beaches, where its primary habitat consists of overwash flats at accreting ends of islands and lower foredunes and upper strands of non-eroding beaches. It occasionally establishes small temporary populations in other habitats, including sound-side beaches, blowouts in foredunes, and sand and shell material placed as beach replenishment or dredge spoil. Seabeach amaranth appears to be intolerant of competition and does not occur on well-vegetated sites. The species appears to need extensive areas of barrier island beaches and inlets, functioning in a relatively natural and dynamic manner. These characteristics allow it to move around in the landscape as a fugitive species, occupying suitable habitat as it becomes available."	As the lead federal agency NASA is coordinating with USFWS directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.
Eagles (<i>Haliaeetus leucocephalus</i>)				
Eagle Nests	Unlikely to disturb nesting bald eagles	No Eagle Act permit required		

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Eagle Concentration Areas	Does not intersect with bald eagle concentration area	No Eagle Act permit required		
Critical Habitat				
Species Under the Jurisdiction of NMFS				
Kemp's Ridley Sea Turtle (Lepidochelys kempii)	No critical habitat present	Not likely to adversely affect	Adult Kemp's primarily occupy "neritic" habitats. Neritic zones typically contain muddy or sandy bottoms where prey can be found. Their diet consists mainly of swimming crabs, but may also include fish, jellyfish, and an array of mollusks.	As the lead federal agency NASA is coordinating with NOAA directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.
Leatherback Sea Turtle (Dermochelys coriacea)	No critical habitat present	Not likely to adversely affect	The Eastern Pacific Leatherback subpopulation nests along the Pacific coast of the Americas from Mexico to Ecuador, and marine habitats extend from the coastline westward to approximately 130°W and south to approximately 40°S. This subpopulation is genetically distinct from all other Leatherback subpopulations, despite having some areas of overlap with the Western Pacific subpopulation (Dutton et al. 1999). In the Atlantic nesting female leatherbacks tagged in French Guiana have been found along the east tracked, using satellite transmitters, to the west coast of North America as far north as Newfoundland. Atlantic Canada supports one of the largest seasonal foraging populations of leatherbacks in the Atlantic. Leatherbacks have also been tagged with satellite transmitters at sea off Nova Scotia (James et al., 2005). Adult leatherbacks are capable of tolerating a wide range of water temperatures and have been sighted along the entire continental east coast of the United States as far north as the Gulf of Maine and south to Puerto Rico, the U.S. Virgin Islands, and into the Gulf of Mexico.	As the lead federal agency NASA is coordinating with NOAA directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.

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Loggerhead Sea Turtle (Caretta caretta)	No critical habitat present	Not likely to adversely affect	Loggerheads nest on ocean beaches, generally preferring high energy, relatively narrow, steeply sloped, coarse-grained beaches. Immediately after hatchlings emerge from the nest, they begin a period of frenzied activity. During this active period, hatchlings move from their nest to the surf, swim, and are swept through the surf zone, and continue swimming away from land for up to several days. Post-hatchling loggerheads take up residence in areas where surface waters converge to form local downwellings. These areas are often characterized by accumulations of floating material, such as seaweed (for example, Sargassum), and, in the southeast U.S. are common between the Gulf Stream and the southeast U.S. coast. Once individuals get transported by ocean currents farther offshore, they've entered the oceanic zone. Within the North Atlantic, juvenile loggerheads have been primarily studied in the waters around the Azores and Madeira (Bolten 2003). Other populations exist (for example, in the region of the Grand Banks off Newfoundland), but data on these populations are limited. The juvenile turtles around the Azores and Madeira spend the majority of their time in the top 15 feet (5 m) of the water column. Somewhere between 7-12 years old, oceanic juveniles migrate to nearshore coastal areas (neritic zone) and continue maturing until adulthood. The predominate foraging areas for western North Atlantic adult loggerheads are found throughout the relatively shallow continental shelf waters of the U.S., Bahamas, Cuba, and the Yucatán Peninsula, Mexico. Migration routes from foraging habitats to nesting beaches (and vice	As the lead federal agency NASA is coordinating with NOAA directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.
North Atlantic Right Whales (Eubalaena glacialis)	Species (listed/proposed) present	Not likely to adversely affect		As the lead federal agency NASA is coordinating with NOAA directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.
Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus)	Species (listed/proposed) present	Not likely to adversely affect		As the lead federal agency NASA is coordinating with NOAA directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.

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	Species (listed/proposed) present	Not likely to adversely affect	<p>All life stages; shortnose sturgeon occur in large coastal rivers of eastern North America, from New Brunswick to Florida (Dadswell et al. 1984). In the Gulf of Maine important numbers of shortnose sturgeon occur in the lower Kennebec, Sheepscot, Androscoggin (Maine) and Merrimac rivers (Massachusetts/New Hampshire). Historically, they occupied every major river from the St. John, Canada, to the St. John, Florida (B. Kynard pers. comm.).</p> <p>All known spawning occurs in the most upstream accessible reaches of rivers the species uses (Crance 1986, SSRT 1998, Squiers 1983). Where dams do not block passage, spawning may occur in riffle habitat, 200 km upstream of the river mouth, well above tidal influence (B. Kynard, pers. comm.). Within the study area, spawning occurs close to the bottom, in areas of deep water, with significant current, and substrates of gravel, rubble, boulder or ledge (Squiers 1983; Dadswell 1979, Squiers et al 1993, Kynard 1997 all in SSRT 1998)."</p>	<p>As the lead federal agency NASA is coordinating with NOAA directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.</p>
Shortnose sturgeon (Acipenser brevirostrum)				

NOAA Fisheries

Essential Fish Habitat	Present	Not likely to adversely affect	Project is within Grid numbers 23 and 35.	<p>As the lead federal agency NASA is coordinating with NMFS directly for all federally listed threatened/endangered species. All comments and conditions received by the USFWS will be incorporated as a special condition if a permit is issued.</p>

Other (species not listed above)

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