

Species Conclusions Table

Project Manager: Bahnson	Project Name: Haversham Close Dredging
Date: April 25, 2022	Project Number: NAO-1988-0819

Project Description: To gain water access for four properties, this project includes new and maintenance dredging, by mechanical means, within a basin in addition to dredging a channel through a sandbar. The sandbar is migrating southward and is cutting off access for 25 properties along Dey Cove Drive, Godfrey Lane, and Haversham Close. New dredging will include 1,443 cubic yards (5,765 square feet) of mudflats, 3,781 cubic yards (45,623 square feet) of sand/subaqueous bottom, and maintenance dredging 672 cubic yards (5,200 square feet) of subaqueous bottom. The basin will be dredged to -4.5' MLW to -6.5' MLW, and the sand bar dredged to -6.5' MLW. Dredge spoils would be loaded into hopper barges and taken to Crab Creek for transfer to sealed dump trucks for transport to Whitehurst Borrow Pit Dredged Material Disposal Area. Maintenance dredging would occur on an as needed basis for the length of

Species Under the Jurisdiction of FWS:

Species/Resource Name	Habitat/Species Presence in Action Area	ESA Section 7 Determination	Sources of Info	Project Elements that Support Determination
<i>Insert name of species or resource as listed on Official Species List.</i>			#N/A	<i>Explain which project elements may impact the habitat or individuals of each species and any Avoidance and Minimization Measures being implemented.</i>
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>	No tree clearing is requiring for any dredging activities, which would occur via water. Therefore the Corps has made a no effect determination for the Northern Long-eared Bat.
Monarch butterfly (Danaus plexippus)	N/A	N/A	<p>Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots present on the upper side and lower side of forewings and hindwings (Bouseman and Sternburg 2001, p. 222). Adult monarchs are sexually dimorphic, with males having narrower wing venation and scent patches (CEC 2008, p.11; Figure 2). The bright coloring of a monarch serves as a warning to predators that eating them can be toxic (referred to as aposematism). Monarchs in eastern and western North America represent the ancestral origin for the species worldwide. They exhibit long-distance migration and overwinter as adults at forested locations in Mexico and California. These overwintering sites provide protection from the elements (for example, rain, wind, hail, and excessive radiation) and moderate temperatures, as well as nectar and clean water sources located nearby. Adult monarchs feed on nectar from a wide variety of flowers. Reproduction is dependent on the presence of milkweed, the sole food source for larvae. Monarch butterflies are found in 90 total countries, islands, or island groups. Monarch butterflies have become naturalized in most of these locations outside of North America since 1840. The populations outside of eastern and western North America (including southern Florida) do not exhibit long-distance migratory behavior.</p>	The monarch butterfly is a candidate species.

Species Under the Jurisdiction of NMFS

Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus)	No critical habitat present	No effect	<p>Atlantic sturgeon are "anadromous"; adults spawn in freshwater in the spring and early summer and migrate into "estuarine" and marine waters where they spend most of their lives. In some southern rivers a fall spawning migration may also occur. They spawn in moderately flowing water (46-76 cm/s) in deep parts of large rivers. Sturgeon eggs are highly adhesive and are deposited on bottom substrate, usually on hard surfaces (e.g., cobble). It is likely that cold, clean water is important for proper larval development. Once larvae begin migrating downstream they use benthic structure (especially gravel matrices) as refuges. Juveniles usually reside in estuarine waters for months to years.</p> <p>Subadults and adults live in coastal waters and estuaries when not spawning, generally in shallow (10-50 m depth) nearshore areas dominated by gravel and sand substrates. Long distance migrations away from spawning rivers are common.</p>	GARFO PRD-USACE NAD NLAA No Effect matrix for new, improvement and maintenance dredging allows for no effect determination provided no work occurring in critical habitat. The proposed dredging is not occurring in critical habitat of any of the listed species. Therefore the Corps has made a no effect determination for the Atlantic sturgeon, shortnose sturgeon, green sea turtle, Kemp's ridley sea turtle, loggerhead sea turtle, and leatherback sea turtle.
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Shortnose sturgeon (<i>Acipenser brevirostrum</i>)	No critical habitat present	No effect	<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>	GARFO PRD-USACE NAD NLAA No Effect matrix for new, improvement and maintenance dredging allows for no effect determination provided no work occurring in critical habitat. The proposed dredging is not occurring in critical habitat of any of the listed species. Therefore the Corps has made a no effect determination for the Atlantic sturgeon, shortnose sturgeon, green sea turtle, Kemp's ridley sea turtle, loggerhead sea turtle, and leatherback sea turtle.
Green Sea Turtle (<i>Chelonia mydas</i>)	No critical habitat present	No effect	<p>Adult females migrate from foraging areas to mainland or island nesting beaches and may travel hundreds or thousands of kilometers each way. After emerging from the nest, hatchlings swim to offshore areas, where they are believed to live for several years, feeding close to the surface on a variety of pelagic plants and animals. Once the juveniles reach a certain age/size range, they leave the pelagic habitat and travel to nearshore foraging grounds. Once they move to these nearshore benthic habitats, adult green turtles are almost exclusively herbivores, feeding on sea grasses and algae.</p>	GARFO PRD-USACE NAD NLAA No Effect matrix for new, improvement and maintenance dredging allows for no effect determination provided no work occurring in critical habitat. The proposed dredging is not occurring in critical habitat of any of the listed species. Therefore the Corps has made a no effect determination for the Atlantic sturgeon, shortnose sturgeon, green sea turtle, Kemp's ridley sea turtle, loggerhead sea turtle, and leatherback sea turtle.
Kemp's Ridley Sea Turtle (<i>Lepidochelys kempii</i>)	No critical habitat present	No effect	<p>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.</p>	GARFO PRD-USACE NAD NLAA No Effect matrix for new, improvement and maintenance dredging allows for no effect determination provided no work occurring in critical habitat. The proposed dredging is not occurring in critical habitat of any of the listed species. Therefore the Corps has made a no effect determination for the Atlantic sturgeon, shortnose sturgeon, green sea turtle, Kemp's ridley sea turtle, loggerhead sea turtle, and leatherback sea turtle.
Loggerhead Sea Turtle (<i>Caretta caretta</i>)	No critical habitat present	No effect	<p>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 versa) for a portion of the population are restricted to the continental shelf, while other routes involve crossing oceanic waters to and from the Bahamas, Cuba, and the Yucatán Peninsula. Seasonal migrations of adult loggerheads along the mid- and southeast U.S. coasts have also been documented.</p>	GARFO PRD-USACE NAD NLAA No Effect matrix for new, improvement and maintenance dredging allows for no effect determination provided no work occurring in critical habitat. The proposed dredging is not occurring in critical habitat of any of the listed species. Therefore the Corps has made a no effect determination for the Atlantic sturgeon, shortnose sturgeon, green sea turtle, Kemp's ridley sea turtle, loggerhead sea turtle, and leatherback sea turtle.
Leatherback Sea Turtle (<i>Dermochelys coriacea</i>)	No critical habitat present	No effect	<p>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 coast, 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.</p>	GARFO PRD-USACE NAD NLAA No Effect matrix for new, improvement and maintenance dredging allows for no effect determination provided no work occurring in critical habitat. The proposed dredging is not occurring in critical habitat of any of the listed species. Therefore the Corps has made a no effect determination for the Atlantic sturgeon, shortnose sturgeon, green sea turtle, Kemp's ridley sea turtle, loggerhead sea turtle, and leatherback sea turtle.

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NOAA Fisheries				
Essential Fish Habitat	Present	Not likely to adversely affect	Dey Cove contains EFH (Grid # 94) for the adult, juvenile adult, larvae, and/or egg life stages of 16 species including: red hake (<i>Urophycis chuss</i>), Atlantic herring (<i>Clupea harengus</i>), scup (<i>Stenotomus chrysops</i>), Atlantic sharpnose shark (<i>Rhizoprionodon terraenovae</i>), sand tiger shark (<i>Caracharias taurus</i>), butterflyfish (<i>Peprilus triacanthus</i>), windowpane flounder (<i>Scophthalmus aquosus</i>), bluefish (<i>Pomatomus saltatrix</i>), dusky shark (<i>Carcharhinus obscurus</i>), black sea bass (<i>Centropristis striata</i>), summer flounder (<i>Paralichthys dentatus</i>), red drum (<i>Sciaenops ocellatus</i>), sandbar shark (<i>Carcharhinus plumbeus</i>), cobia (<i>Rachycentron canadum</i>), king mackerel (<i>Scomberomorus cavalla</i>), Atlantic Spanish mackerel (<i>Scomberomorus maculatus</i>).	The project will result in very minor, short-term turbidity. The work will disturb bottom sediments and may cause a temporary increase in suspended sediment in the action area. Using available information, we expect the work to produce total suspended sediment (TSS) concentrations of approximately 5.0 to 10.0 mg/L within approximately 300 feet of the action area. The small resulting sediment plume is expected to settle out of the water column within a few hours. Studies of the effects of turbid water on fish suggest that concentrations of suspended sediment can reach thousands of milligrams per liter before an acute toxic reaction is expected (Burton 1993). The TSS levels expected for this project (5.0 to 10.0 mg/L) are below those shown to have adverse effect on fish (580.0 mg/L for the most sensitive species, with 1,000.0 mg/L more typical; see summary of scientific literature in Burton 1993) and benthic communities (390.0 mg/L (EPA 1986)).
Anadromous Fish Use Area	Absent			
SAV Beds	Absent			
HAPC Sandbar Shark	Absent			
Other (species not listed above)				