Appendix G

EFH Analysis and Consultation (NOAA NMFS)

Federal Interagency Comment Form

APPLICANT:	New Jersey Dept. of Transportation/City of Somers Point
APPL. NUMBER:	CENAP-OP-R-2015-1060-24
Commenting Agency:	NOAA Fisheries
Project Manager:	James Boyer/Paula Scelsi
Waterway/Location:	Ship Channel (marina) and Patcong Creek (reuse of dredged material), Atlantic County, NJ
Activity:	Redevelopment of existing marina facility and dredging; beneficial reuse of dredged material on Somers Point-Mays Landing Road

ESSENTIAL FISH HABITAT (EFH)
Project may adversely affect EFH.

ESSENTIAL FISH HABITAT CONSERVATION RECOMMENDATIONS
(Note: EFH conservation recommendations (CRs) require a response from the federal action agency within 30 days of receipt or 10 days before a permit is issued if CRs are not included as a special condition of the permit. In addition, a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.920 (i) if new information becomes available, or if the project is revised in such a manner that affects the basis for the above EFH determination or EFH conservation recommendations.)

Provided all new structures will be made with non-polluting materials and dredging is prohibited from March 1 to June 30 of any given year, as is outlined in the EFH Assessment/Worksheet, our EFH conservation recommendations are:

1. Dredge depth should not exceed the depth of the adjacent channel.
2. In areas where water depth is less than two (2) feet at mean low water, avoid floating structures (e.g., floating docks) from grounding during periods of low tide, to avoid and minimize adverse effects to shellfish habitat. This can be done by chocking the floats.
3. For the berm construction along the portion of Somers Point-Mays Landing Road and parking lot area, avoid fill in areas dominated by native marsh vegetation.

FISH AND WILDLIFE COORDINATION ACT COMMENTS
See EFH above.

OTHER
1. Send NMFS a copy of the permit when issued.

SIGNATURE: Keith Hanson DATE: 5/24/2018

D11507.001
May 2, 2018

ESSENTIAL FISH HABITAT ASSESSMENT REPORT

Higbee Marina and Resiliency Project

City of Somers Point, Atlantic County, NJ

Prepared for:

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1.0 INTRODUCTION

DuBois Environmental Consultants (DEC) has conducted an *Essential Fish Habitat (EFH) Assessment* upon and within the vicinity of the proposed marina reconstruction and dredging project and resiliency project that includes the construction of a berm along Somers Point-Mays Landing Road and around the perimeter of a parking lot to be raised in elevation within the City of Somers Point, Atlantic County, New Jersey. In order to evaluate impacts of the project to EFH, DEC has conducted an evaluation and prepared a habitat assessment in accordance with the regulations implementing the essential fish habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). EFH are those areas that have been identified and described by species and lifestage. Fish require healthy surroundings to survive and reproduce. EFH includes all types of aquatic habitat - wetlands, coral reefs, sea-grasses, rivers - where fish spawn, breed, feed, or grow to maturity.

DEC performed a field evaluation at the project site and vicinity in March 2018 to assess existing biotic community conditions. The habitat assessment incorporated the assessment of soils, vegetation communities, ecotone areas, aquatic characteristics, and surrounding land uses in relation to the EFH. Findings of the assessment were utilized to complete the EFH Assessment Worksheet (refer to *Appendix A: EFH Assessment Worksheet*).

2.0 PROPOSED PROJECT

The applicant proposes to upgrade an existing marina facility by removing old dock structures, constructing new docks, and dredging. There is an existing "U-shaped" dock arrangement, which will be removed. That includes the following structures: a) 225x5' and 133x5' docks perpendicular to shore; b) 18x30' (with building) and 37x5' docks parallel to shore; and c) 96 existing pilings. In their place, the applicant would construct the following new structures:

- 72x6' fixed dock perpendicular to shore
- 18x30' (with building) and 13x6' fixed docks parallel to shore
- 130x6' and 214x6' floating docks perpendicular to shore
- Seven (7) dock "fingers": five 25x3'; one 20x8'; one 25x6'.
- 48 new pilings

The project site contains mapped shellfish habitat, and the new structures would be constructed with non-polluting materials. There would be a total of 22 boat slips. Two would be designated for a water taxi and a fishing excursion boat. The remainder would be for transient boaters.

Dredging would be by mechanical (bucket) method. A maximum total of 6,896 cubic yards of material would be dredged from a maximum area of approximately 0.9 acre, to a maximum depth of six (6) ft below mean low water (MLW). The dredged material has been characterized as approximately 40 percent sand, with the remainder fine-grained or silty in nature. Turbidity barriers will be used during dredging operations. All proposed dredging is maintenance dredging as this area has historically been used as a public marina and there is sufficient historical documentation to indicate that the area has been dredged in the past. Dredge material would be moved to the staging area in the adjacent City Owned Parking Lot using a long reach excavator. Prior to dredging, jersey barriers and silt fencing shall be erected around the perimeter of the dredged material dewatering area. Dredged material will be adequately dewatered (i.e. no free water) on-site prior to final placement at the beneficial reuse area. The beneficial reuse area will not result in a substantial adverse effect on managed species subject to this consultation. Nearly all of the dredge material will be placed above the mean high tide line. Of the total volume of material to be placed, approximately 36 CY would be placed below the HTL for the berm along the road embankment. Approximately 673 CY

would be placed below the existing HTL associated with the berm around the perimeter of the parking lot. These areas do not contain habitat that support EFH designated species and secondary impacts to adjacent coastal wetlands, including physical, biological or chemical impacts, are not substantial. After dredging, forty-eight new fiberglass reinforced plastic pilings will be installed with a vibration hammer. To mitigate the potential effects of underwater noise caused by pile installation, piles will be driven using a vibratory hammer and installation each day will begin with a slow start technique to allow mobile species to move away from the area. The amount of pilings will be reduced from what previously existed prior to storm damage, from 96 pilings to 48 pilings.

The project is anticipated to begin in the Fall of 2018. Dredging will be completed by the end of 2018 and docks constructed by June of 2019. Dredging is prohibited from March 1 through June 30 to minimize adverse effects to spawning and migration of anadromous fish.

The City of Somers Point has been approved for federal funding for the proposed work from the U.S. Department of the Interior through two separate grant programs: The first grant, for the Higbee Marina improvements (including dredging and dock construction), is from the Boating Infrastructure Grant Program, which is administered by the U.S. Fish and Wildlife Service. This money is being granted to the New Jersey Department of Transportation, Office of Maritime Resources. The City of Somers Point is their sub-grantee. The second grant, for the beneficial reuse of dredged material (berm construction along a portion of Somers Point-Mays Landing Road (County Route 559) and near the parking lot of a separate marina located on Somers Point-Mays Landing Road (County Route 559) near the Patcong Creek Bridge), is from the National Fish and Wildlife Foundation through their Hurricane Sandy Coastal Resiliency Competitive Grant Program. The parking lot improvements (raising the elevation of the parking lot) at the marina on Somers Point-Mays Landing Road (County Route 559) near the Patcong Creek Bridge is being funded by the City of Somers Point.

NJDEP permits have been obtained (IP In-Water Waterfront Development Permit and Water Quality Certificate [NJDEP Permit No. 0121-17-0002.1 WFD170001], Coastal General Permit 24 [NJDEP Number 0121-17-0003.1 CZM170001], and Flood Hazard Area Individual Permit [NJDEP Permit No. 0121-17-0003.2 FHA 170001]). An application for a U.S. Army Corps of Engineers Permit is currently under review (CENAP-OP-R-2015-1060-24) (refer to *Appendix C: NJDEP Permits and USACE Pubic Notice*).

3.0 SITE LOCATION

The proposed site of the docks and dredging project is the Higbee Marina, owned by the City of Somers Point. It is located in and along Ship Channel, approximately 2,000 feet northeast of the Route 52 bridge, at 198 Higbee Avenue, Block 1612, Lots 2 and 2.01, in the City of Somers Point, Atlantic County, New Jersey. The proposed site for beneficial reuse of dredged material is at the Jennings Gateway Marina and along the north side of Somers Point – Mays Landing Road (County Route 559), between the Patcong Creek bridge on the west, and the Garden State Parkway on the east, located within the City of Somers Point, Atlantic County, New Jersey (refer to *Figure 1: NJ Road Map*). The project locations can be found on the NE Marmora & NW Ocean City United States Geological Survey (USGS) Quadrangles with NAD 1983 state plane coordinates (feet) at the approximate center of the site of each location as follows: Higbee Marina E(x) 465,991 and N(y) 173,975; Resiliency Project E(x) 455,963 and N(y) 175,832 (refer to *Figure 2: NE Marmora & NW Ocean City U.S.G.S Quadrangle Map*).

4.0 EXISTING CONDITIONS

4.1 Project Site Conditions

The project limits associated with Higbee Marina includes the 38,971 ft^2 (approximately 0.9-acre) dredge footprint and marina basin, as well as the immediately adjacent areas which could be indirectly impacted by the proposed work. Habitat in the project limits can be described as marine subtidal and marine intertidal with water depths ranging from 0 ft to approximately -6 ft below Mean Low Water (MLW). Currently the maximum water depth is approximately -5 ft. The bayfront is completely developed and bulkheaded. The exception to this is the public beach area located immediately west of the marina. The entire bayfront contains docks for both recreational and commercial vessels. Upland site uses include recreation areas, residential and commercial uses. The site has been developed as a marina since at least 1956. Refer to *Figure 3: Aerial Map: Higbee Marina* for a depiction of the land coverage present on and in the vicinity of the project areas. Representative photographs of the sites are presented in *Appendix B.*

The proposed site for beneficial reuse of dredged material is situated along the north side of Somers Point – Mays Landing Road (County Route 559), between the Patcong Creek bridge on the west, and the Garden State Parkway on the east. Dredged material will also be used for structural fill to raise the parking lot at Gateway Marina along Patcong Creek by approximately 3.5 feet above the existing grade. All proposed disturbances are above the Mean High Water (MHW) line. Of the total volume of material to be placed, approximately 36 CY would be placed below the HTL for the road embankment. Approximately 673 CY would be placed below the existing HTL associated with the berm around the perimeter of the parking lot. Refer to *Figure 4: Aerial Map: Resiliency Project* for a depiction of the land coverage present on and in the vicinity of the project areas. Representative photographs of the sites are presented in *Appendix B.*

4.2 Soils

Based on the New Jersey Department of Environmental Protection (NJDEP) Geographic Information Systems (GIS) digital data and publication entitled, Soil Survey of Atlantic County, New Jersey, prepared by the United States Department of Agriculture (USDA), Soil Conservation Service, issued April 1980, the Higbee Marina is listed as water area and the Resiliency project is underlain by two (2) soil map units and two (2) soil series are identified on the subject property. The following description has been referenced directly from the USDA Natural Resources Conservation Service Soil Data Mart.

PstAt - Psammaquents, sulfidic substratum, 0 to 3 percent slopes, frequently flooded
The Psammaquents, sulfidic substratum, frequently flooded component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on flats on coastal plains, filled marshlands. The parent material consists of sandy lateral spread deposits over organic material. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 8w. This soil does not meet hydric criteria.

TrkAv - Transquaking mucky peat, 0 to 1 percent slopes, very frequently flooded
The Transquaking, very frequently flooded component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on tidal marshes on coastal plains. The parent material consists of herbaceous organic material over loamy. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is very frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 70 percent. Nonirrigated land capability classification

is 8w. This soil meets hydric criteria. The soil has a strongly saline horizon within 30 inches of the soil surface.

Sediments to be dredged are primarily sand and fine-grained silty material, with an average sand content of 40%. Samples with the greatest sand content came from the southwestern portion of the dredging area, which had a sand content of 55.7%.

The areas proposed for the berm are comprised of gravel/stone parking areas and disturbed embankment/right-of-way. Marsh substrate in the vicinity of the berm is presumably fine-grained.

4.3 Vegetation Communities

The location of the marina upgrades is void of any vegetation. No coastal wetland areas or vegetated freshwater wetland fringe were identified in these areas. The project area is not mapped to contain Submerged Aquatic Vegetation (refer to *Figure 5: Shellfish Classification and SAV Map*).

Vegetation at the edge of the developed marina and right-of-way associated with the Resiliency project includes turf grass, hightide bush (*Iva frutescens*), and common reed (*Phragmites australis*).

4.4 NJDEP Mapped Wetlands

According to the Geographic Information System data layer entitled, "Wetlands, Cross Acceptance (WETLANDS_CA)", published by the New Jersey Department of Environmental Protection (NJDEP) Office of Information Resources Management (OIRM) Bureau of Geographic Information Systems (BGIS), wetlands are present north of the resiliency project (i.e., berm and parking lot) associated with the coastal marsh environs of Patcong Creek. There are no wetlands located on or in the immediate area of the proposed dredging area (refer to *Figure 6: NJDEP Mapped Wetlands*). Upon a site inspection conducted by DEC, it was confirmed that wetlands are consistent with the NJDEP mapping.

4.5 Existing Topography and Drainage

According to the plans entitled "Higbee Marina, Dredging Plan, Block 1612, Lots 2 & 2.01, City of Somers Point, Atlantic County, New Jersey" prepared by Mott Associates, LLC, dated 5/1/17, last revised 1/8/18, a high contour elevation of 0 feet below the Mean Low Waterline is present along the western extent of the dredging area, and a low contour elevation of -6 feet below the Mean Low Waterline is present within the eastern extent of the dredging area.

As depicted on the plans entitled "Resiliency Project, Grading & Site Plan Phase I, City of Somers Point, Atlantic County, New Jersey" prepared by Mott Associates, LLC, dated 5/1/17, last revised 1/8/18, the proposed berm is entirely above the MHW line. Of the total volume of material to be placed, approximately 36 CY would be placed below the high tide line for the road embankment. Approximately 673 CY would be placed below the existing high tide line to construct the berm around the parking lot.

4.6 Surface Water Quality

The adjacent upland is located within the Great Egg Harbor Water Management Area (WMA 15) and the Patcong Creek/Great Egg Harbor Bay watershed. The Higbee Marina is within the GEH Bay/Lakes Bay/Skull Bay/Peck Bay subwatershed (HUC 14: 02040302060040) and the Resiliency project is within the Patcong Creek (Somers Ave to Zion Rd) subwatershed (HUC 14: 02040302060030). According to the NJDEP GIS data layer entitled "NJDEP Surface Water Quality Standards of New Jersey", the adjacent

waterways are classified as Freshwater Category 2, Non-trout waters / saline estuarine (FW2-NT/SE1) by the NJDEP. Non-trout waters do not have the physical, chemical or biological makeup to support trout, however may play host to a variety of other fish species.

5.0 ESSENTIAL FISH HABITAT RECORDS SEARCH

DEC researched NOAA NMFS records regarding the EFH associated with the site or vicinity.

5.1 Summary of Essential Fish Habitat Designation

The Habitat Conservation Division EFH webpage's *Essential Fish Habitat (EFH) Mapper* was consulted to generate the list of designated EFH for federally-managed species for the geographic area of interest. The species list was used as part of the initial screening process to determine if EFH for those species occurs in the vicinity of the proposed action. The project sites mapped to contain EFH designated by the Mid Atlantic Region, New England Region and Atlantic Highly Migratory Species. The sites does not contain EFH designated in the South Atlantic Region or habitat areas of particular concern (HAPC). EFH Mapper and "Omnibus Essential Fish Habitat Amendment 2, Volume 2: EFH and HAPC Designation Alternatives and Environmental Impacts" was used to develop the list of EFH designations on site.

Table 1: Summary of EFH Designations

Species	Eggs	Larvae	Juveniles	Adults
Mid Atlantic Region				
bluefish *(Pomatomus saltatrix)*			X	X
long finned squid *(Loligo pealeii)*			X	X
Atlantic butterfish *(Peprilus triacanthus)*			X	X
summer flounder *(Paralichthys dentatus)*		X	X	X
scup *(Stenotomus chrysops)*			X	X
black sea bass *(Centropristis striata)*			X	X
surf clam *(Spisula solidissima)*			X	X
New England Region				
red hake *(Urophycis chuss)*	X	X	X	
white hake *(Urophycis tenuis)*	X			
silver hake (*Merluccius bilinearis*)	X	X	X	
windowpane flounder *(Scophthalmus aquosus)*	X	X	X	X
Atlantic sea herring *(Clupea harengus)*			X	X
monkfish *(Lophius americanus)*	X	X		
clearnose skate (*Raja eglanteria*)			X	X
little skate (*Leucoraja erinacea*)			X	X
winter skate (*Leucoraja ocellata*)			X	X

Atlantic Highly Migratory Species				
sand tiger shark *(Carcharias taurus)*		X (neonatal)		
smoothhound shark (*Mustelus mustelus*)	n/a	n/a	n/a	n/a
Skipjack tuna (*Katsuwonus pelamis*)				X
Yellowfin tuna (*Thunnus albacares*)			X	

6.0 ESSENTIAL FISH HABITAT EVALUATION

EFH are those areas that have been identified and described by species and lifestage. Fish require healthy surroundings to survive and reproduce. EFH includes all types of aquatic habitat - wetlands, coral reefs, sea-grasses, rivers - where fish spawn, breed, feed, or grow to maturity. The species subject of this evaluation was derived from EFH mapping.

6.1 Species Narrative

Descriptions of habitats required by the target species are presented below, followed by a general habitat evaluation impact assessment.

Atlantic butterfish (*Peprilus triacanthus*)
The Atlantic Butterfish is a pelagic species, found to occur all year round in large schools within coastal bays. Juvenile forms are found in shallow coastal waters under floating weeds or in association with the *Scyphomedusae, Chrysaora quinquecirrha* (Mansueti 1963). Adults will feed on jellyfish, small fish, worms, and crustaceans, while juveniles are primarily plankton feeders. This species is found at depths of 50–70 m.

Atlantic herring *(Clupea harengus)*
This benthopelagic, oceanodromous species, forms large schools in coastal waters. It feeds predominantly upon copepods, migrating up the water column at night to feed in shallower surface waters. The Atlantic Herring ranges in depth from the surface to 200 m. (Herdson, D. & Priede, I. 2010.)

Black sea bass (*Stenotomus chrysops*)
This species prefers rough, hard bottom habitats in both inshore and offshore localities. It mainly feeds on crustaceans, fishes and molluscs (Link 1980). It can live up to 10-20 years, reach lengths from 43.2-45+ cm, and weigh to five kilograms (Lavenda 1949, Mercer 1978, Link 1980, R. Robertson pers. comm. 2012). Juveniles reside in the protective estuarine waters around jetties, piers, wrecks, and shell bottoms. (Anderson, W., Milagrosa Bustamante, G., Carpenter, K.E., Gilmore, G. & Robertson, R. 2015.)

Blue fish (*Pomatomus saltatrix*)
Pomatomus saltatrix is a highly-migratory, coastal to continental shelf species. It is a voracious visual feeder renowned for its appetite where it often feeds on atherinids and engraulids, but also other teleosts and squid. Younger individuals hunt in schools, and the adults in loose groups. Sharks, tunas and billfishes prey on *P. saltatrix* and it is a major prey item for the Shortfin Mako Shark and Swordfish.

The species is typically found at temperatures ranging from 14-16°C to 30°C. Although there are variations in life history traits among populations, there are commonalities: adults migrate to spawning grounds, eggs and larvae are typically transported along-shore to juvenile nursery habitats, juveniles recruit to coastal

areas and estuaries, grow rapidly and are mainly piscivorous. The spawning, seasonal migration, and life cycle are closely linked to temperature. Spawning occurs in surface waters of temperatures ranging from 20-26.8°C. It is a multiple batch spawner with intermediate fecundity that spawns large numbers of small eggs continuously during the spring migration. (Stillwell and Kohler 1982, 1985)

Clearnose skate (*Raja eglanteria*)
This skate is endemic to the Northwest and Western Central Atlantic, occurring from Massachusetts to southern Florida and in the eastern and northern Gulf of Mexico. This skate prefers inshore areas and is found from saltwater estuaries to depths of 330 m. However, it is most abundant at depths <111 m (Packer et al. 2003). This species prefers inshore areas of 10–21°C and feeds mainly on decapod crustaceans, bivalves, polychaetes, squids and fishes. It breeds inshore, and reproduction is oviparous, like other skates, with oblong egg capsules deposited in sandy or muddy flats.

Little skate (*Leucoraja erinacea*)
The Little Skate is considered a shallow water species and occurs to depths of 90 m. It has a relatively narrow distribution, found only in the northwest Atlantic from Grand Banks, Canada to Cape Hatteras, North Carolina, USA, and reaches its highest concentrations in USA waters. Habitat ranges from shallow shoal waters to 90 m depth, usually on sandy or gravelly substrates. Little Skates make no extensive migrations, although where it occurs inshore the species moves onshore and offshore with seasonal temperature changes (Collette and Klein-MacPhee 2002).

Long finned squid (*Loligo pealeii*)
Longfin squid are characterized by a long fin, at least half the length of the mantle. They can reach up to 1.6 feet in mantle length but are usually less than one foot. They range from Newfoundland to the Gulf of Venezuela in South America. Longfin squid are pink or orange and mottled with brown or purple. Besides their long fin, they feature large eyes covered by a cornea. Although considered a mollusk, squid don't have an outer shell but rather have an internal shell called a "pen." Longfin squid have a short life span: they reproduce right before they die, at around just six to eight months old. Spawning occurs year-round, with peak production in winter and summer, with females typically spawning an estimated 3,000 to 6,000 eggs. Eggs hatch between 11 and 26 days later, depending on water temperature. Longfin squid also grow fast; given this and their short life span, even without fishing the entire population replaces itself every six months or so. Squid are aggressive hunters, feeding on fish even larger than they are. A school of squid can decimate an entire school of herring, leaving only heads and tails in their wake.

Monkfish (*Lophius piscatorius*)
It is a demersal species that can occur from the shore to the continental slope, to 500 m. *Lophius piscatorius* is long-lived, late-maturing, and slow-growing, which may make it more susceptible to overfishing. It exhibits seasonal onshore–offshore movements in response to thermal conditions, prey availability, or for spawning. *Lophius piscatorius* is a sit-and-wait predator that utilizes concealment and a lure to opportunistically feed on prey items.

Red hake (*Urophycis chuss*)
Found on soft muddy and sandy bottoms, but never on rocks, gravel or shells. Juveniles live along the coasts at shallow depths (4-6 m); adults migrate to deeper waters, generally to between 110 and 130 m, and in some instances, to over 550 m. Juveniles live in scallops (*Placopecten magellanicus*) and remain close to scallop beds until they mature. They prefer temperatures of 8-10°C. Feed on shrimps, amphipods and other crustaceans, also on squid and herring, flatfish, mackerel and others. (Luna, Susan M., 2012)

Sand tiger shark (*Carcharias taurus*)

The Sand Tiger Shark occurs either alone or in small to medium-sized aggregations of 20-80 individuals. These sharks are often observed hovering motionless just above the seabed in or near deep sandy-bottomed gutters or rocky caves, usually in the vicinity of inshore rocky reefs and islands. They are generally coastal, usually being found from the surf zone down to depths of around 25 m. However, they may also occasionally be found in shallow bays, around coral reefs and, very rarely, to depths of around 200 m on the continental shelf. They usually live near the bottom,but may also move throughout the water column. (Pollard, D. & Smith, A. 2009)

Scup (*Stenotomus chrysops*)
Stenotomus chrysops occurs over the continental shelf, forming schools of similar-sized individuals in areas with smooth, rough or rocky bottoms. This species is particularly plentiful around piers, rocks, offshore ledges, jetties and mussel beds. *Stenotomus chrysops* undertakes extensive migrations between coastal waters in summer and offshore waters in winter, migrating north and inshore to spawn in spring. Young larvae inhabit very shallow estuarine waters while juveniles and adults move into harbours and along sandy beaches during high tides, and then into deeper channels as the tides recede. Larger individuals generally occur farther offshore than do smaller, younger ones. The *S. chrysrops* population of the Middle Atlantic Bight makes extensive seasonal migrations with a few fish tagged and caught south of Cape Hatteras. This species is found in areas with water temperatures greater than 45°F and most commonly found in water temperatures from 55° to 77°F. Adults of this species feed upon bottom invertebrates including small crabs, annelid worms, clams, mussels, jellyfish, and sand dollars. The mean fecundity for *S. chrysops* is about 7,000 ova per female. (Carpenter, K.E. 2014)

Silver hake (*Merluccius bilinearis*)
Silver hake is distributed in the northwest and central Atlantic Ocean from Canada south along the U.S. to southeast Florida. It embarks on daily vertical migrations to hunt at night. During late spring and early summer, adults move to shallower waters. It returns to deeper waters in the autumn and winter with the older, larger fish in the deepest portion. Juveniles also display similar seasonal distribution patterns, only congregating in shallower waters.

Skipjack tuna (*Katsuwonus pelamis*)
This pelagic and oceanodromous species is found in offshore waters to depths of 260 m. The larvae are restricted to waters with surface temperatures of 15–30°C in Australia. This species exhibits a strong tendency to school in surface waters with birds, drifting objects, sharks, and whales. This species feeds on fish, crustaceans, cephalopods, and molluscs.

Smoothhound shark (*Mustelus mustelus*)
This coastal species is widespread, from Northern Europe to South Africa, including the Mediterranean Sea. This demersal coastal species is found on the continental shelves and uppermost slopes, from the intertidal to at least 350 m depth, but usually in shallow waters from 5-50 m on sandy and muddy substrates.

Summer flounder (*Paralichthys dentatus*)
The flounder, *Paralichthys dentatus*, is a bottom dwelling species and generally prefers muddy or sandy substrates. This species is concentrated in bays and estuaries from late spring to the early autumn, however the larger specimens remain further offshore at depths of 70-155 m or deeper. This species has also been found in salt marshes and seagrass beds with muddy or silty substrates. This species is also occasionally found in freshwater rivers. (Munroe, T.A. 2010)

Surf clam (*Spisula solidissima*)
The Atlantic Surf Clam is the largest type of clam living along the Atlantic coast. Their strong, triangular shaped, two-part or bivalve shell can reach up to 6 inches across. They are found from Maine to North

Carolina. Preferring fine to medium grained sandy sediment and salinities above 14 parts per thousand (ppt) for adults and 16ppts for larvae, this soft-bodied invertebrate is most common where the Harbor Estuary opens into the Atlantic Ocean. They are also found along the coast of New Jersey and Long Island. Adult surf clams rarely move voluntarily from their sandy burrows under normal conditions but storms and strong currents can displace them. They rebury themselves rapidly, unless they are washed up onto a beach. (Claire Antonucci, et.al, 2014)

White hake (*Urophycis tenuis*)
White Hake are found near the sea floor and they prefer areas with sand, mud or gravel. They adjust their depth distribution to find temperatures in the range of 4-8º C. Larger fish are generally found in deeper waters whereas juveniles typically occupy shallow areas close to shore or over shallow offshore banks. Individuals of all sizes tend to move inshore in summer and migrate to deeper water in winter. Juvenile and adult White Hake feed mostly on crustaceans and fish, with larger hake consuming larger prey.

Windowpane flounder (*Scophthalmus aquosus*)
Windowpane prefer sandy bottom habitats and are most abundant from Georges Bank to the southern tip of Virginia. Windowpane occur in bays and estuaries at depths from the shoreline to 60 m. On Georges Bank, the species is most abundant on the shoals (depths < 60 m) during late spring through autumn but overwintering occurs in deeper waters out to 366 m.

Winter skate (*Leucoraja ocellata*)
The Winter Skate is a common shelf-water species, found in the northwest Atlantic from Labrador to the Carolinas. Winter Skate is a benthic species. Habitat ranges from shoreline to 317 m, but they are most abundant at depths <150 m. The temperature range for this species is -1.2-19°C. This species prefers sandy and gravel substrate. Substrate type rather than depth appears more important in determining distribution.

Yellowfin tuna (*Thunnus albacares*)
This species is found worldwide in tropical and subtropical seas. This is an open-water pelagic and oceanic species occurring above and below the thermocline to depths of at least 400 m. This species schools primarily by size, either in monospecific or multi-species groups. Larger fish frequently school with porpoises and are also associated with floating debris and other objects.

6.2 Habitat Evaluation and Impact Assessment (See *Appendix A: EFH Worksheet*)

As stated in the EFH Worksheet, this analysis of adverse effects to EFH under the MSA should focus on impacts to the habitat for all life stages of species with designated EFH, rather than individual responses of fish species. Fish habitat includes the substrate and benthic resources (e.g., submerged aquatic vegetation, shellfish beds, salt marsh wetlands), as well as the water column and prey species.

The applicant proposes to upgrade an existing marina facility by removing old dock structures, constructing new docks with non-polluting materials, and dredging. A maximum total of 6,896 cubic yards of material would be dredged from a maximum area of approximately 0.9 acre, to a maximum depth of six (6) ft below mean low water (MLW). Turbidity barriers will be used during dredging operations. Dredge material would be moved to the staging area in the adjacent City Owned Parking Lot using a long reach excavator. Prior to dredging, Jersey barriers and silt fencing shall be erected around the perimeter of the dredged material dewatering area. Dredged material will be adequately dewatered (i.e. no free water) on-site prior to final placement at the beneficial reuse area. After dredging, forty-eight new fiberglass reinforced plastic pilings will be installed with a vibration hammer. To mitigate the potential effects of underwater noise caused by pile installation, piles will be driven using a vibratory hammer and installation each day will begin with a slow start technique to allow mobile species to move away from the area. The project is anticipated to

begin in the Fall of 2018. Dredging will be completed by the end of 2018 and docks constructed by June of 2019. Dredging is prohibited from March 1 through June 30.

Benthic Community Impacts

Maintenance dredging and dock construction will cause localized disturbance to the seafloor by altering prey availability and/or other aspects of benthic habitat such as shading from docks and associated pilings. The effects of dredging and construction on prey availability is expected to be negligible because the area is small (< 0.9 acre) and any potential prey resources for managed species would presumably become naturally re-established and colonize the project area from similar adjacent areas after project completion. Studies reviewed by Wilbur and Clarke (2007) demonstrate that benthic communities in temperate regions occupying shallow waters on similar substrates reported recovery times between 1-11 months after dredging. Shading can reduce photosynthesis in the area, which forms the basis of benthic food chains, and may reduce forage base in the shaded area. As this is an upgrade to an existing marina, the seafloor of the action area is already shaded by piers and pilings and is not expected to be significantly altered in this regard. Further, the project will result in less pilings than previously existed, from 96 pilings to 48 pilings. Given this information, the effects of this project on benthic habitat within the project area not substantial. (USFWS, 2018)

Berm activities and activities associated with elevation of the parking area are located above the MHW line. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the resiliency project. No impacts are expected.

SAV Impacts

There are no SAV beds or mapped SAV habitat in the project area.

Salt Marsh Habitats

No new areas of salt marsh are proposed to be impacted. Salt marsh does not exist at the Higbee Marina. The applicant proposes to place the berm and elevate the parking area above the MHW line and coastal wetlands boundary. The footprint of the berm is along an area that is significantly disturbed and associated with a stone parking area and roadway grassed shoulder. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the resiliency project.

Mudflat Habitat

The areas proposed for dredging have been historically used for navigation. Some areas have been impacted by sedimentation to the point where such navigation may only be available during certain tidal stages. As stated above, a portion of the waterfront is abutted by bulkhead. However, there are limited areas where mud flats are exposed. There would be a minimum 35' buffer between the edge of any dredging (beginning of the slope) and the bulkhead. This would maintain portions of the existing inter-tidal zone and minimize impacts to any limited areas that are exposed at low tide. No mud flat habitat exists in areas of proposed berm and parking area elevation.

Shellfish Habitat

The actual presence of shellfish is unknown, but unlikely in the boat slip areas proposed for maintenance dredging and dock reconstruction. The only indication of shellfish habitat is the designation of areas on the 1963 map (hard clam, high commercial value). The Higbee Marina site is mapped as seasonally restricted on the NJDEP Shellfish Distribution Maps. Given the nature of the areas to be dredged, impacts to actual shellfish production areas (and thus prey for managed species) is expected to be minimal. Further, all structures are to be made of non-polluting materials.

Berm activities and activities associated with elevation of the parking area are located above the MHW line. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the resiliency project. No substantial impacts are expected.

Hard Bottom Habitat
The substrates to be dredged are mainly silty in nature, with some sandier content in the southern portion of the marina basin.

Berm activities and activities associated with elevation of the parking area are located above the MHW line. No impacts are expected.

Sediments and Sedimentation Rates
Sediments will be altered by removal from dredging (to -6' MLW). Sedimentation rates are expected to continue unchanged as a result of the ongoing maintenance dredging, dock construction and berm construction.

Berm activities and activities associated with elevation of the parking area are located above the MHW line. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the resiliency project. No impacts are expected.

Turbidity
Fish could be exposed to elevated turbidity from the mechanical (bucket) dredging. Elevated suspended sediment levels will be present in the immediate vicinity of the dredge and during pile installation, with levels dropping off with increased distance. Fish would be able to either swim through any such plume with no more than minimal adverse effects or make small evasive movements to avoid it (Great Egg Harbor Bay and inter-connected bays and channels are fairly expansive in the vicinity). As such, any effects of turbidity from dredging operations or pile installation on managed species would not be more than minimal. The use of a turbidity barrier will prevent the majority of suspended sediments from that practice from extending further into the backbay area. Prior to dredging, jersey barriers and silt fencing shall be erected around the perimeter of the dredged material dewatering area. Dredging is prohibited from March 1 through June 30.

Berm activities and activities associated with elevation of the parking area are located above the MHW line. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the resiliency project. No impacts are expected.

Water Depths
Maintenance dredging will return depths to previously created and maintained depths (-6' MLW). Currently, depths range from near 0 to -6' MLW in areas proposed for dredging.

Berm activities and activities associated with elevation of the parking areas are located above the MHW line. Substantial impacts are not expected.

Contaminants
The applicant has performed core sampling and testing of sediments as required by the NJDEP, Office of Dredging and Sediment Technology. A report showing levels of all contaminants is available. The State of New Jersey has issued the necessary Section 401 Water Quality Certificate. Pursuant to federal regulations at 33 CFR 320.4(d), "the Clean Water Act assigns responsibility for control of non-point sources of pollution to the states. Certification of compliance with applicable effluent limitations and water quality standards required under provisions of section 401 of the Clean Water Act will be considered conclusive

with respect to water quality considerations unless the Regional Administrator, Environmental Protection Agency (EPA), advises of other water quality aspects to be taken into consideration."

Berm activities and activities associated with elevation of the parking areas are located above the MHW line. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the resiliency project. No substantial impacts are expected.

Tidal Flow, Currents and Wave Patterns

The maintenance dredging is to return areas to their design depth. There will be no change to flow or currents.

Berm activities and activities associated with elevation of the parking areas are located above the MHW line. No impacts are expected.

Water Quality

Impacts to water quality would be temporary in nature, and primarily from elevated turbidity in and around the dredging sites. See description above for "turbidity." Aside from that, there may be minor elevations in certain contaminants from disturbance to the substrate as well as release of return water from the dewatering area (in accordance with any Section 401 Water Quality Certificate issued by the State of New Jersey).

Water quality will not be altered in association with the berm construction and parking lot elevation. There is currently no protection of the marsh from the storm water runoff from the road which may include trash and toxins and other pollutants (gas, motor oil, antifreeze, fertilizers, pesticides and pet droppings). This polluted stormwater can kill fish and other wildlife and destroy wildlife habitat. Stormwater quality will be improved by the proposed installation of grass/vegetative swales along Somers Point Mays Landing Road. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the resiliency project.

Ambient Noise Levels

Except during the actual dredging and construction operations, background or ambient noise levels are not expected to change. The dredging is for maintenance of previously existing marina areas, and it is not expected to significantly increase the levels of boat usage in the area. During dredging and dock construction, the temporary increases in noise level from the dredging and construction equipment and work vessels will cause minimal disruption to managed species that are in the area. To mitigate the potential effects of underwater noise caused by pile installation, piles will be driven using a vibratory hammer and installation each day will begin with a slow start technique to allow mobile species to move away from the area.

Ambient noise levels will not be affected in association with the berm construction and parking lot elevation.

Prey Species

Impacts to prey species would be temporary and short term in nature, and not more than minimal. These impacts would be from elevated turbidity at the dredging sites and construction activities, including minimal movements by the species as necessary to avoid this (and the equipment itself). Further, the project will result in a reduction of pilings from what previously existed at the marina. In addition, disturbance of the benthic and shellfish habitat could cause minimal short-term effects until re-colonization takes place.

Berm activities and activities associated with elevation of the parking areas are located above the MHW line. No substantial impacts are expected.

7.0 CONCLUSION

DEC has conducted a EFH Assessment on and within the vicinity of the Higbee Marina and the Resiliency project. The evaluation was derived from EFH mapping and "Omnibus Essential Fish Habitat Amendment 2, Volume 2: EFH and HAPC Designation Alternatives and Environmental Impacts". The evaluation has resulted in the determination that the proposed project will result in minimal impacts to EFH. The adverse effect on EFH is not substantial. This means that the adverse effects are either no more than minimal, temporary, or that they can be alleviated with minor project modifications or conservation recommendations. This is a request for an abbreviated EFH consultation. In summary, the following impacts to life stages are expected to result from the project:

Spawning
Back-bay areas and/or coastal marsh areas may provide spawning habitat for managed species. Effects of dredging and construction on spawning habitat would be temporary (short-term) and localized in nature. Such effects would be from elevations in turbidity and habitat modification (such as temporary loss of benthic resources); but they would not be more than minimal (i.e. not substantial).

The beneficial reuse area will not result in a substantial effect on managed species subject to this consultation. All of the dredge material will be placed above the MHWL. Of the total volume of material to be placed, approximately 709 CY would be placed below the HTL for the resiliency project.

Nursery
Larvae of managed species migrate to inshore areas, where such nursery areas may be affected by dredging and construction activities. Since any impacts of dredging and construction on nursery habitat would be temporary (short-term) and localized in nature. Such effects would be from elevations in turbidity and habitat modification (such as temporary loss of benthic resources); but they would not be more than minimal (i.e. not substantial)

The beneficial reuse area will not result in a substantial effect on managed species subject to this consultation. All of the dredge material will be placed above the MHW line. Of the total volume of material to be placed, approximately 36 CY would be placed below the HTL for the berm along the road embankment. Approximately 673 CY would be placed below the existing HTL associated with the berm around the perimeter of the parking lot.

Forage
Back-bay areas and/or coastal marsh areas may provide forage habitat for managed species. In addition, there is habitat for prey species. Effects of dredging and construction on foraging habitat would be temporary (short-term) and localized in nature. Such effects would be from elevations in turbidity and habitat modification (such as temporary loss of benthic resources); but they would not be more than minimal (i.e. not substantial).

The beneficial reuse area will not result in a substantial effect on managed species subject to this consultation. All of the dredge material will be placed above the MHW line. Of the total volume of material to be placed, approximately 36 CY would be placed below the HTL for the berm along the road embankment. Approximately 673 CY would be placed below the existing HTL associated with the berm around the perimeter of the parking lot.

Shelter

Back-bay areas and/or coastal marsh areas may provide shelter habitat for managed species as well as their prey. Effects of dredging and dock construction on shelter habitat would be temporary (short-term) and localized in nature. They would result from elevations in turbidity and habitat modification (such as temporary loss of benthic resources); but they would not be more than minimal (i.e. not substantial).

The beneficial reuse area will not result in a substantial effect on managed species subject to this consultation. All of the dredge material will be placed above the MHW line. Of the total volume of material to be placed, approximately 36 CY would be placed below the HTL for the berm along the road embankment. Approximately 673 CY would be placed below the existing HTL associated with the berm around the perimeter of the parking lot.

The project will reduce the number of pilings at the marina. Further, the project has incorporated mitigative aspects including the use of non-polluting materials, specialized techniques that reduce secondary impacts, such as Jersey barriers, turbidity barriers, slow start piling installation methods, and a seasonal dredging restriction from March 1 to June 30.

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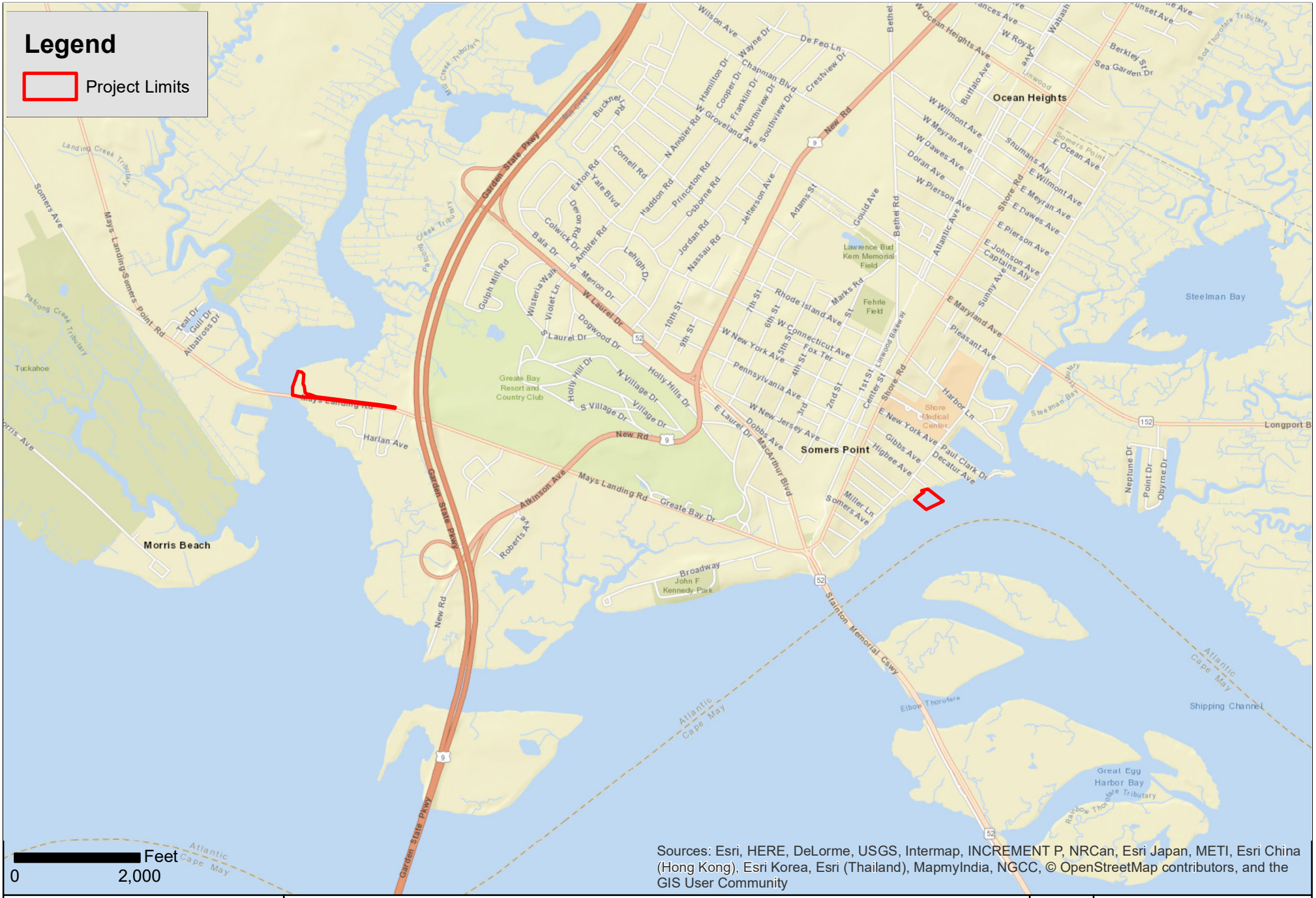
Figures



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Atlantic County Road Map

Higbee Marina and Resiliency Project
City of Somers Point, Atlantic County, NJ

NORTH

Figure 1

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Scale: 1 in = 2,000 ft	
Date: 3/14/2018	
Drawn By: TK	

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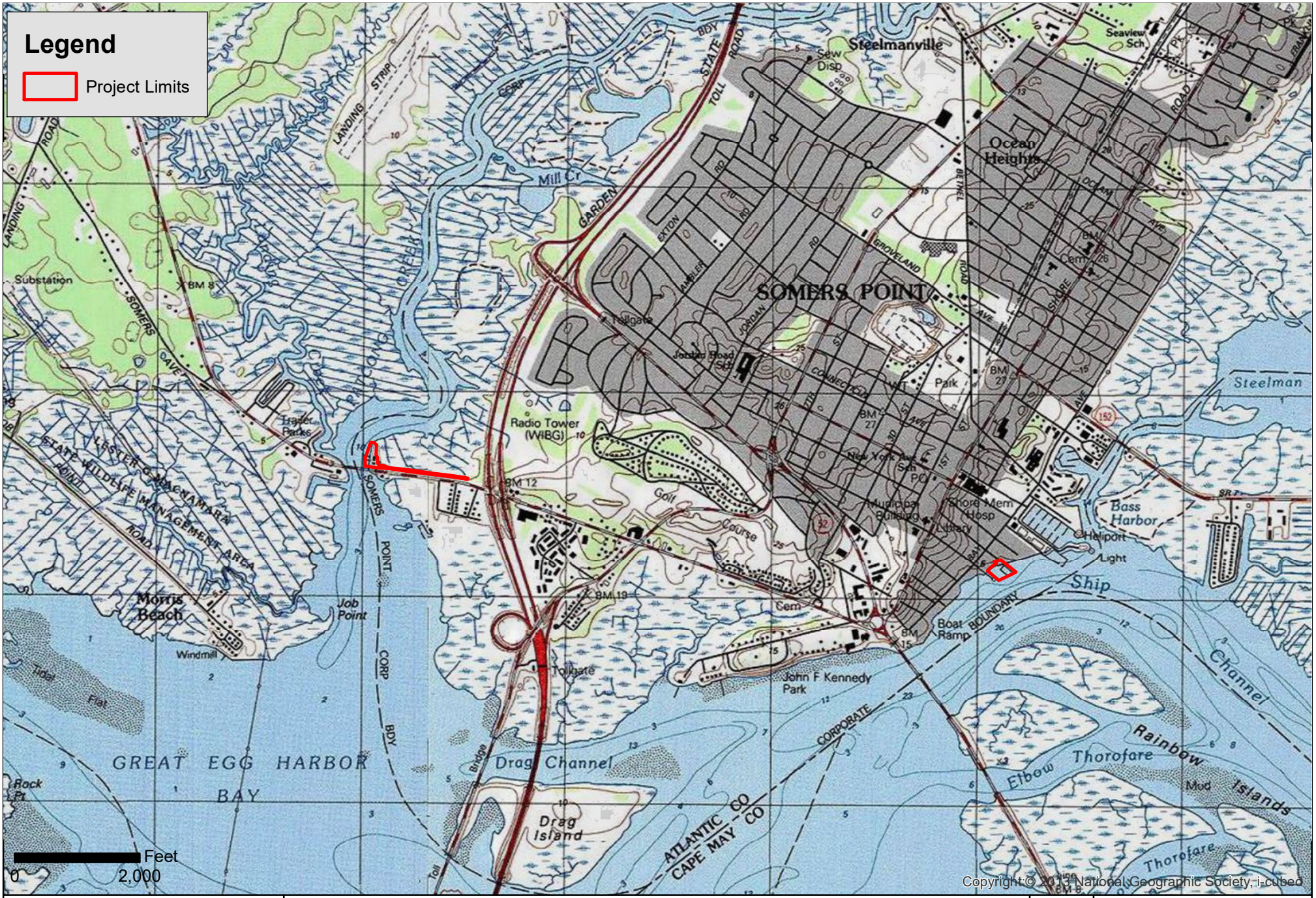

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NE Marmora & NW Ocean City NJ U.S.G.S. Quadrangle Map

Higbee Marina and Resiliency Project
City of Somers Point, Atlantic County, NJ

NORTH

Figure 2

Job No.: D1507.001	
Scale: 1 in = 2,000 ft	
Date: 3/14/2018	
Drawn By: TK	

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This map was developed using Geographic Information Systems Digital Data. This map is for visual display purposes only and all locations are approximate.

Aerial Map

Higbee Marina
City of Somers Point, Atlantic County, NJ

DuBois Environmental Consultants

NORTH

Figure 3

Job No.: D1507.001
Scale: 1 in = 100 ft
Date: 3/14/2018
Drawn By: TK

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Aerial Map

Resiliency Project
City of Somers Point, Atlantic County, NJ

DuBois Environmental Consultants

NORTH

Figure 4

Job No.: D1507.001
Scale: 1 in = 200 ft
Date: 3/14/2018
Drawn By: TK

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Shellfish Classification and SAV Map

Higbee Marina and Resiliency Project
City of Somers Point, Atlantic County, NJ

NORTH

Figure 5

Job No.: D1507.001	
Scale: 1 in = 2,000 ft	
Date: 3/14/2018	
Drawn By: TK	

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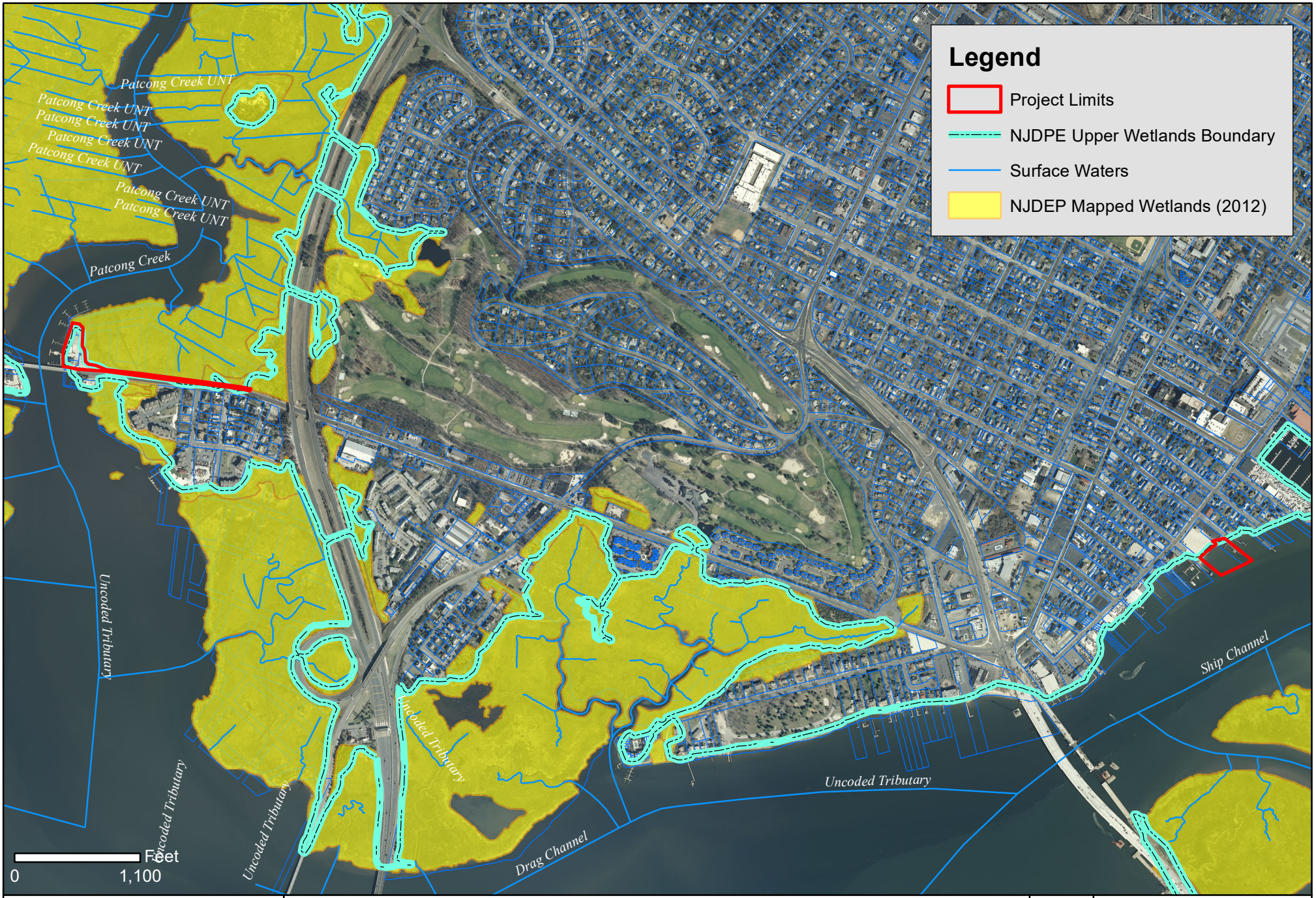

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NJDEP Wetlands Map

Higbee Marina and Resiliency Project
City of Somers Point, Atlantic County, NJ

NORTH

Figure 6

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Date: 3/16/2018
Drawn By: TK

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This map was developed using Geographic Information Systems Digital Data. This map is for visual display purposes only and all locations are approximate.

Appendix A

EFH Assessment Worksheet

NOAA FISHERIES
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
Essential Fish Habitat (EFH) Consultation Guidance
EFH ASSESSMENT WORKSHEET

Introduction:

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) mandates that federal agencies conduct an essential fish habitat (EFH) consultation with NOAA Fisheries regarding any of their actions authorized, funded, or undertaken that may adversely affect EFH. An adverse effect means any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

This worksheet has been designed to assist in determining whether a consultation is necessary and in preparing EFH assessments. This worksheet should be used as your EFH assessment or as a guideline for the development of your EFH assessment. At a minimum, all the information required to complete this worksheet should be included in your EFH assessment. If the answers in the worksheet do not fully evaluate the adverse effects to EFH, we may request additional information in order to complete the consultation.

An expanded EFH assessment may be required for more complex projects in order to fully characterize the effects of the project and the avoidance and minimization of impacts to EFH. While the EFH worksheet may be used for larger projects, the format may not be sufficient to incorporate the extent of detail required, and a separate EFH assessment may be developed. However, regardless of format, the analysis outlined in this worksheet should be included for an expanded EFH assessment, along with additional information that may be necessary. This additional information includes:

- the results of on-site inspections to evaluate the habitat and site-specific effects
- the views of recognized experts on the habitat or the species that may be affected
- a review of pertinent literature and related information
- an analysis of alternatives to the action that could avoid or minimize the adverse effects on EFH.

Your analysis of adverse effects to EFH under the MSA should focus on impacts to the habitat for all life stages of species with designated EFH, rather than individual responses of fish species. Fish habitat includes the substrate and benthic resources (e.g., submerged aquatic vegetation, shellfish beds, salt marsh wetlands), as well as the water column and prey species.

Consultation with us may also be necessary if a proposed action results in adverse impacts to other NOAA-trust resources. Part 6 of the worksheet is designed to help assess the effects of the action on other NOAA-trust resources. This helps maintain efficiency in our interagency coordination process. In addition, further consultation may be required if a proposed action impacts marine mammals or threatened and endangered species for which we are responsible. Staff from our Greater Atlantic Regional Fisheries Office, Protected Resources Division should be contacted regarding potential impacts to marine mammals or threatened and endangered species.

Instructions for Use:

Federal agencies must submit an EFH assessment to NOAA Fisheries as part of the EFH consultation. Your EFH assessment must include:

1) A description of the proposed action.
2) An analysis of the potential adverse effects of the action on EFH, and the managed species.
3) The federal agency's conclusions regarding the effects of the action on EFH.
4) Proposed mitigation if applicable.

In order for this worksheet to be considered as your EFH assessment, you must answer the questions in this worksheet fully and with as much detail as available. Give brief explanations for each answer.

Federal action agencies or the non-federal designated lead agency should submit the completed worksheet to NOAA Fisheries Greater Atlantic Regional Fisheries Office, Habitat Conservation Division (HCD) with the public notice or project application. Include project plans showing existing and proposed conditions, all waters of the U.S. on the project site, with mean low water (MLW), mean high water (MHW), high tide line (HTL), and water depths clearly marked and sensitive habitats mapped, including special aquatic sites (submerged aquatic vegetation, saltmarsh, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges), hard bottom habitat areas and shellfish beds, as well as any available site photographs.

For most consultations, NOAA Fisheries has 30 days to provide EFH conservation recommendations once we receive a complete EFH assessment. Submitting all necessary information at once minimizes delays in review and keeps review timelines consistent. Delays in providing a complete EFH assessment can result in our consultation review period extending beyond the public comment period for a particular project.

The information contained on the HCD website will assist you in completing this worksheet. The HCD website contains information regarding: the EFH consultation process; Guide to EFH Designations which provides a geographic species list; Guide to EFH Species Descriptions which provides the legal description of EFH as well as important ecological information for each species and life stage; and other EFH reference documents including examples of EFH assessments and EFH consultations.

Our website also includes a link to the NOAA EFH Mapper .
We would note that the EFH Mapper is currently being updated and revised. Should you use the EFH Mapper to identify federally managed species with designated EFH in your project area, we recommend checking this list against the Guide to Essential Fish Habitat Designations in the Northeast to ensure a complete and accurate list is provided.

EFH ASSESSMENT WORKSHEET FOR FEDERAL AGENCIES (modified 3/2016)

PROJECT NAME: Higbee Marina - City of Somers Point, NJ; marina upgrade, maintenance dredging and resiliency project.

DATE: 05/02/2018

PROJECT NO.: CENAP-OP-R-2015-1060-24

LOCATION (Water body, county, physical address):

Waters in and along Ship Channel and Patcong Creek in the City of Somers Point, Atlantic County, New Jersey. See USACE public notice, assessment report and attached figures for more detailed project location description.

PREPARER:

Step 1: Use the Habitat Conservation Division EFH webpage's Guide to Essential Fish Habitat Designations in the Northeastern United States to generate the list of designated EFH for federally-managed species for the geographic area of interest. Use the species list as part of the initial screening process to determine if EFH for those species occurs in the vicinity of the proposed action. The list can be included as an attachment to the worksheet. Make a preliminary determination on the need to conduct an EFH consultation.

1. INITIAL CONSIDERATIONS

EFH Designations	Yes	No
Is the action located in or adjacent to EFH designated for eggs? **List the species:** As per the EFH Mapper and "Omnibus Essential Fish Habitat Amendment 2, Volume 2: EFH and HAPC Designation Alternatives and Environmental Impacts": red hake, white hake, silver hake, windowpane flounder, monkfish	✓	
Is the action located in or adjacent to EFH designated for larvae? **List the species:** As per the EFH Mapper and "Omnibus Essential Fish Habitat Amendment 2, Volume 2: EFH and HAPC Designation Alternatives and Environmental Impacts": red hake, silver hake, windowpane flounder, monkfish, summer flounder, sand tiger shark	✓	
Is the action located in or adjacent to EFH designated for juveniles? **List the species:** As per the EFH Mapper and "Omnibus Essential Fish Habitat Amendment 2, Volume 2: EFH and HAPC Designation Alternatives and Environmental Impacts": red hake, silver hake, windowpane flounder, Atlantic sea herring, bluefish, Atlantic butterfish, summer flounder, scup, black sea bass, surf clam, inshore longfinned squid, clearnose skate, winter skate, little skate, yellowfin tuna	✓	

Is the action located in or adjacent to EFH designated for adults or spawning adults? List the species: As per the EFH Mapper and "Omnibus Essential Fish Habitat Amendment 2, Volume 2: EFH and HAPC Designation Alternatives and Environmental Impacts": windowpane flounder, Atlantic sea herring, bluefish, summer flounder, scup, black sea bass, surf clam, inshore longfinned squid, clearnose skate, winter skate, little skate, skipjack tuna, Atlantic butterfish	✓	

If you answered 'no' to all questions above, then an EFH consultation is not required - go to Section 5.

If you answered 'yes' to any of the above questions, proceed to Section 2 and complete the remainder of the worksheet.

<u>Step 2</u>: In order to assess impacts, it is critical to know the habitat characteristics of the site before the activity is undertaken. Use existing information, to the extent possible, in answering these questions. Identify the sources of the information provided and provide as much description as available. These should not be yes or no answers. Please note that there may be circumstances in which new information must be collected to appropriately characterize the site and assess impacts. Project plans that show the location and extent of sensitive habitats, as well as water depths, the HTL, MHW and MLW should be provided.

2. SITE CHARACTERISTICS

Site Characteristics	Description
Is the site intertidal, sub-tidal, or water column?	Dredging and dock locations are inter-tidal and sub-tidal. They include developed (bulkheaded) bayfront with a high density of recreational boat docks, other bulkheaded areas immediately along the waterfront and mooring areas. The site of the beneficial reuse project, including berm and parking lot elevation, is largely in uplands with 709 CY of berm below the high tide line adjacent to inter-tidal Spartina marsh.
What are the sediment characteristics?	Sediments to be dredged are primarily sand and fine-grained silty material, with an average sand content of 40%. Samples with the greatest sand content came from the southwestern portion of the dredging area, which had a sand content of 55.7%. Marsh substrate in the vicinity of the berm is presumably fine-grained. The parking lot is comprised of stone and gravel with highly compacted sediments.
Is there submerged aquatic vegetation (SAV) at or adjacent to project site? If so describe the SAV species and spatial extent.	No. There is no SAV or SAV habitat in the project area.
Are there wetlands present on or adjacent to the site? If so, describe the spatial extent and vegetation types.	Yes. Portions of the berm and parking lot to be elevated are adjacent to a tidal marsh. The applicant proposes to place the berm and parking lot elevation above the MHW line and coastal wetlands boundary. The footprint of the berm is along an area that is significantly disturbed and associated with a stone parking area and roadway grassed shoulder. No wetlands are located in the vicinity of the proposed dredging area.

Is there shellfish present at or adjacent to the project site? If so, please describe the spatial extent and species present.	Actual presence of shellfish is unknown, but it would be unlikely in the boat slip areas and areas proposed for the berm. However, the back-bay areas are designated or mapped as shellfish habitat ("hard clam - high value commercial") on the 1963 U.S. FWS map. Patcong Creek is designated as "oyster - seed production area" on the referenced map.
Are there mudflats present at or adjacent to the project site? If so please describe the spatial extent.	Most areas to be dredged are bulkheaded. However mudflats are exposed during low tide in the area to be dredged. No mud flat habitat exists in areas of proposed berm and parking area elevation.
Is there rocky or cobble bottom habitat present at or adjacent to the project site? If so, please describe the spatial extent.	No. Mostly silty substrates, with some sandier content near the southern extent of the dredge area.
Is Habitat Area of Particular Concern (HAPC) designated at or near the site? If so for which species, what type habitat type, size, characteristics?	As per the EFH Mapper and “Omnibus Essential Fish Habitat Amendment 2, Volume 2: EFH and HAPC Designation Alternatives and Environmental Impacts”, no HAPC exist at or near the sites.
What is the typical salinity, depth and water temperature regime/range?	Salinity ranges from 17 to 32 ppt, with seawater zones (25 and greater) near the inlets, and mixing zones (0.5 to 25) as you get farther from the inlets with more influence/input from the Great Egg Harbor River. Depths (below MLW) range from 0 in portions of the marina basin that have the most urgent needs for dredging to greater than 6 feet deep in areas that currently do not require dredging. The berm and parking lot elevation is above MHW. Seasonal water temperatures can range from near freezing during the winter months to approximately 75 degrees Fahrenheit in the summer months.
What is the normal frequency of site disturbance, both natural and man-made?	All areas experience a high level of recreational boat traffic. The mooring areas also experience additional disturbance from dock and bulkhead construction; most of which would be maintenance, as virtually all areas are already "built-out." In addition, the areas proposed for maintenance dredging have a history of dredging in the past and are currently authorized for dredging by NJDEP. USACE approval is pending. The berm location is currently actively disturbed and consists of phragmities and other invasive species along the grass shoulder Somers Point Mays Landing Road and around an asphalt and stone parking lot
What is the area of proposed impact (work footprint & far afield)?	The project area, as well as the immediately adjacent areas which could be indirectly impacted by the proposed work, which includes the 38,971 ft2 (approximately 0.9-acre) dredge footprint and marina basin plus an additional 44 m (sound impact) distance. The proposed site for beneficial reuse of dredged material is situated at Jennings Gateway Marina and along the north side of Somers Point – Mays Landing Road (County Route 559), between the Patcong Creek bridge on the west, and the Garden State Parkway on the east. The beneficial reuse area is above the MHWL, with only a small portion of berm located below the HTL (709 CY).

Step 3: This section is used to describe the anticipated impacts from the proposed action on the physical/chemical/biological environment at the project site and areas adjacent to the site that may be affected.

3. DESCRIPTION OF IMPACTS

Impacts	Y	N	Description
Nature and duration of activity(s). Clearly describe the activities proposed and the duration of any disturbances.			The applicant proposes to upgrade an existing marina facility by removing old dock structures, constructing new docks with non-polluting materials, and dredging. New docks include 72x6' fixed dock perpendicular to shore, 18x30' (with building) and 13x6' fixed docks parallel to shore, 130x6' and 214x6' floating docks perpendicular to shore, Seven (7) dock "fingers": five 25x3'; one 20x8'; one 25x6' and 48 new pilings. Dredging would be by mechanical (bucket) method. A maximum total of 6,896 cubic yards of material would be dredged from a maximum area of approximately 0.9 acre, to a maximum depth of six (6) ft below mean low water (MLW). Turbidity barriers will be used during dredging operations. Dredge material would be moved to the staging area in the adjacent City Owned Parking Lot using a long reach excavator. Prior to dredging, Jersey barriers and silt fencing shall be erected around the perimeter of the dredged material dewatering area. Dredged material will be adequately dewatered (i.e. no free water) on-site prior to final placement at the beneficial reuse area. After dredging, forty-eight new fiberglass reinforced plastic pilings will be installed with a vibration hammer. The project is anticipated to begin in the Fall of 2018. Dredging will be completed by the end of 2018 and docks constructed by June of 2019. Dredging is prohibited from March 1 through June 30
Will the benthic community be disturbed? If no, why not? If yes, describe in detail how the benthos will be impacted.	✓		Maintenance dredging and dock construction will cause localized disturbance to the seafloor by altering prey availability and/or other aspects of benthic habitat such as shading from docks and associated pilings. The effects of dredging and construction on prey availability is expected to be negligible because the area is small (< 0.9 acre) and any potential prey resources for managed species would presumably become naturally re•established and colonize the project area from similar adjacent areas after project completion. Studies reviewed by Wilbur and Clarke (2007) demonstrate that benthic communities in temperate regions occupying shallow waters on similar substrates reported recovery times between 1-11 months after dredging. Shading can reduce photosynthesis in the area, which forms the basis of benthic food chains, and may reduce forage base in the shaded area. As this is an upgrade to an existing marina, the seafloor of the action area is already shaded by piers and pilings and is not expected to be significantly altered in this regard. Given this information, the effects of this project on benthic habitat within the project area is not expected to have substantial effect on EFH. Berm activities and activities associated with elevation of the parking area are located above the MHW line. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the resiliency project and no impacts are expected.
Will SAV be impacted? If no, why not? If yes, describe in detail how the SAV will be impacted. Consider both direct and indirect impacts. Provide details of any SAV survey conducted at the site.		✓	There are no SAV beds or mapped SAV habitat in the project area.
Will salt marsh habitat be impacted? If no, why not? If yes, describe in detail how wetlands will be impacted. What is the aerial extent of the impacts? Are the effects temporary or permanent?		✓	No new areas of salt marsh are proposed to be impacted. Salt marsh does not exist at the Higbee Marina. The applicant proposes to place the berm and elevate the parking lot above the MHW line and upland of the nearby coastal wetlands boundary. The footprint of the berm is along an area that is significantly disturbed and associated with a stone parking area and roadway grassed shoulder. The project will not result in a substantial impact to salt marsh habitat.

Will mudflat habitat be impacted? If no, why not? If yes, describe in detail how mudflats will be impacted. What is the aerial extent of the impacts? Are the effects temporary or permanent?		✓	The areas proposed for dredging have been historically used for navigation. Some areas have been impacted by sedimentation to the point where such navigation may only be available during certain tidal stages. As stated above, a portion of the waterfront is abutted by bulkhead. However, there are limited areas where mud flats are exposed There would be a minimum 35' buffer between the edge of any dredging (beginning of the slope) and the bulkhead. This would maintain portions of the existing inter-tidal zone and minimize impacts to any limited areas that are exposed at low tide. No mud flat habitat exists in areas of proposed berm and parking area elevation.
Will shellfish habitat be impacted? If so, provide in detail how the shellfish habitat will be impacted. What is the aerial extent of the impact? Provide details of any shellfish survey conducted at the site.	✓		As stated above, the actual presence of shellfish is unknown, but unlikely in the boat slip areas proposed for maintenance dredging and dock reconstruction. The only indication of shellfish habitat is the designation of areas on the 1963 map (hard clam, high commercial value). The Higbee Marina site is mapped as seasonally restricted on the NJDEP Shellfish Distribution Maps. Given the nature of the areas to be dredged, impacts to actual shellfish production areas (and thus prey for managed species) is expected to be minimal and no substantial impacts are expected. Further, all structures are to be made of non-polluting materials. Berm activities and activities associated with elevation of the parking areas are located above the MHW line. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the project. No substantial impacts are expected.
Will hard bottom (rocky, cobble, gravel) habitat be impacted at the site? If so, provide in detail how the hard bottom will be impacted. What is the aerial extent of the impact?		✓	The substrates to be dredged are mainly silty in nature, with some sandier content in the southern portion of the marina basin. Berm activities and activities associated with elevation of the parking areas are located above the MHW line. No impacts are expected.
Will sediments be altered and/or sedimentation rates change? If no, why not? If yes, describe how.	✓		Sediments will be altered by removal from dredging (to -6' MLW). Sedimentation rates are expected to continue unchanged as a result of the maintenance dredging, dock construction and berm construction. Sedimentation rates will not be impacted by the proposed berm or parking lot elevation.
Will turbidity increase? If no, why not? If yes, describe the causes, the extent of the effects, and the duration.	✓		Fish could be exposed to elevated turbidity from the mechanical (bucket) dredging. Elevated suspended sediment levels will be present in the immediate vicinity of the dredge, with levels dropping off with increased distance. Fish would be able to either swim through any such plume with no more than minimal adverse effects or make small evasive movements to avoid it (Great Egg Harbor Bay and inter-connected bays and channels are fairly expansive in the vicinity). As such, any effects of turbidity from dredging operations on managed species would not be substantial. The use of a turbidity barrier will prevent the majority of suspended sediments from that practice from extending further into the backbay area. Prior to dredging, Jersey barriers and silt fencing shall be erected around the perimeter of the dredged material dewatering area. The project is anticipated to begin in the Fall of 2018. Dredging will be completed by the end of 2018 and docks will be completed by June 2019. Dredging will abide by a seasonal restriction from March 1 to June 30. Turbidity will not be impacted by the berm or parking lot elevation.

Will water depth change? What are the current and proposed depths?	✓		Maintenance dredging will return depths to previously created and maintained depths (-6' MLW). Currently, depths range from near 0 to -6' MLW in areas proposed for dredging. Berm activities and activities associated with elevation of the parking areas are located above the MHW line. No substantial impacts are expected.
Will contaminants be released into sediments or water column? If yes, describe the nature of the contaminants and the extent of the effects.	✓		The applicant has performed core sampling and testing of sediments as required by the NJDEP, Office of Dredging and Sediment Technology. A report showing levels of all contaminants is available. The State of New Jersey has issued the necessary Section 401 Water Quality Certificate. Pursuant to federal regulations at 33 CFR 320.4(d), "the Clean Water Act assigns responsibility for control of non-point sources of pollution to the states. Certification of compliance with applicable effluent limitations and water quality standards required under provisions of section 401 of the Clean Water Act will be considered conclusive with respect to water quality considerations unless the Regional Administrator, Environmental Protection Agency (EPA), advises of other water quality aspects to be taken into consideration." No substantial impacts are expected from the resiliency project.
Will tidal flow, currents, or wave patterns be altered? If no, why not? If yes, describe in detail how.		✓	The maintenance dredging is to return areas to their design depth. There will be no change to flow or currents. Berm activities and activities associated with elevation of the parking areas are located above the MHW line. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the project. No impacts are expected.
Will water quality be altered? If no, why not? If yes, describe in detail how. If the effects are temporary, describe the duration of the impact.		✓	Impacts to water quality would be temporary in nature, and primarily from elevated turbidity in and around the dredging sites. See description above for "turbidity." Aside from that, there may be minor elevations in certain contaminants from disturbance to the substrate as well as release of return water from the dewatering area (in accordance with any Section 401 Water Quality Certificate issued by the State of New Jersey). Water quality will not be altered in association with the berm construction and parking lot elevation. There is currently no protection of the marsh from the storm water runoff from the road which may include trash and toxins and other pollutants (gas, motor oil, antifreeze, fertilizers, pesticides and pet droppings). This polluted stormwater can kill fish and other wildlife and destroy wildlife habitat. Stormwater quality will be improved by the proposed installation of grass/vegetative swales along Somers Point Mays Landing Road.
Will ambient noise levels change? If no, why not? If yes, describe in detail how. If the effects are temporary, describe the duration and degree of impact.		✓	Except during the actual dredging and construction operations, background or ambient noise levels are not expected to change. The dredging is for maintenance of previously existing marina areas, and it is not expected to significantly increase the levels of boat usage in the area. During dredging and dock construction, the temporary increases in noise level from the dredging and construction equipment and work vessels will cause minimal disruption to managed species that are in the area. To mitigate the potential effects of underwater noise caused by pile installation, piles will be driven using a vibratory hammer and installation each day will begin with a slow start technique to allow mobile species to move away from the area. Ambient noise levels will not be affected in association with the berm construction or parking lot
Does the action have the potential to impact prey species of federally managed fish with EFH designations?		✓	Impacts to prey species would be temporary and short term in nature, and not more than minimal. These impacts would be from elevated turbidity at the dredging sites and construction activities, including minimal movements by the species as necessary to avoid this (and the equipment itself). In addition, disturbance of the benthic and shellfish habitat could cause minimal short-term effects until re-colonization takes place. Further, the project will result in a decrease of pilings than what was originally installed. Berm activities and activities associated with elevation of the parking areas are located above the MHW line. Increased runoff, introduction of pollutants or other conditions that reduce water quality are not expected as part of the project. No substantial impacts are expected.

Step 4: This section is used to evaluate the consequences of the proposed action on the functions and values of EFH as well as the vulnerability of the EFH species and their life stages. Identify which species (from the list generated in Step 1) will be adversely impacted from the action. Assessment of EFH impacts should be based upon the site characteristics identified in Step 2 and the nature of the impacts described within Step 3. The Guide to EFH Descriptions webpage should be used during this assessment to determine the ecological parameters/preferences associated with each species listed and the potential impact to those parameters.

4. EFH ASSESSMENT

Functions and Values	Y	N	Describe habitat type, species and life stages to be adversely impacted
Will functions and values of EFH be impacted for:			
Spawning **If yes, describe in detail how, and for which species. Describe how adverse effects will be avoided and minimized.**	✓		Back-bay areas and/or coastal marsh areas may provide spawning habitat for managed species. Effects of dredging and construction on spawning habitat would be temporary (short-term) and localized in nature. Such effects would be from elevations in turbidity and habitat modification (such as temporary loss of benthic resources); but they would not be more than minimal (i.e. not substantial). The beneficial reuse area will not result in a substantial effect on managed species subject to this consultation. All of the dredge material will be placed above the MHWL. Of the total volume of material to be placed, approximately 709 CY would be placed below the HTL for the resiliency project.
Nursery **If yes, describe in detail how and for which species. Describe how adverse effects will be avoided and minimized.**	✓		Back-bay areas and/or coastal marsh areas may provide forage habitat for managed species. In addition, there is habitat for prey species. Effects of dredging and construction on foraging habitat would be temporary (short-term) and localized in nature. Such effects would be from elevations in turbidity and habitat modification (such as temporary loss of benthic resources); but they would not be more than minimal (i.e. not substantial). The beneficial reuse area will not result in a substantial effect on managed species subject to this consultation. All of the dredge material will be placed above the MHW line. Of the total volume of material to be placed, approximately 36 CY would be placed below the HTL for the berm along the road embankment. Approximately 673 CY would be placed below the existing HTL associated with the berm around the perimeter of the parking lot.
Forage **If yes, describe in detail how and for which species. Describe how adverse effects will be avoided and minimized.**	✓		Back-bay areas may provide forage habitat for managed species. In addition, there is habitat for prey species. Effects of dredging and construction on foraging habitat would be temporary (short-term) and localized in nature. Such effects would be from elevations in turbidity and habitat modification (such as temporary loss of benthic resources); but they would not be more than minimal (i.e. not substantial). The beneficial reuse area will not result in a substantial effect on managed species subject to this consultation. All of the dredge material will be placed above the MHWL. Of the total volume of material to be placed, approximately 709 CY would be placed below the HTL for the resiliency project.
Shelter **If yes, describe in detail how and for which species. Describe how adverse effects will be avoided and minimized.**	✓		Back-bay areas may provide shelter habitat for managed species as well as their prey. Effects of dredging and dock construction on shelter habitat would be temporary (short-term) and localized in nature. They would result from elevations in turbidity and habitat modification (such as temporary loss of benthic resources); but they would not be more than minimal (i.e. not substantial). The beneficial reuse area will not result in a substantial effect on managed species subject to this consultation. All of the dredge material will be placed above the MHWL. Of the total volume of material to be placed, approximately 709 CY would be placed below the HTL for the resiliency project.

Will impacts be temporary or permanent? Please indicate in description box and describe the duration of the impacts.			Impacts from maintenance dredging and dock construction will be temporary and short-term for disruption of benthic habitat and water quality or turbidity impacts to the water column. The number of pilings will be reduced from 96 to 48.
Will compensatory mitigation be used? If no, why not? Describe plans for mitigation and how this will offset impacts to EFH. Include a conceptual compensatory mitigation plan, if applicable.		✓	Compensatory mitigation is not proposed since impacts will be not substantial and temporary in nature. The project will reduce the amount of pilings at the marina. Further, the project has incorporated mitigative aspects including the use of non-polluting materials, specialized techniques that reduce secondary impacts, such as Jersey barriers, turbidity barriers, slow start piling installation methods, and a seasonal dredging restriction from March 1 to June 30.

<u>Step 5</u>: This section provides the federal agency's determination on the degree of impact to EFH from the proposed action. The EFH determination also dictates the type of EFH consultation that will be required with NOAA Fisheries.

Please note: if information provided in the worksheet is insufficient to allow NOAA Fisheries to complete the EFH consultation additional information will be requested.

5. DETERMINATION OF IMPACT

Federal Agency's EFH Determination		
Overall degree of adverse effects on EFH (not including compensatory mitigation) will be: **(check the appropriate statement)**		**There is no adverse effect on EFH or no EFH is designated at the project site.** **EFH Consultation is not required.**
	✓	**The adverse effect on EFH is not substantial. This means that the adverse effects are either no more than minimal, temporary, or that they can be alleviated with minor project modifications or conservation recommendations.** **This is a request for an abbreviated EFH consultation.**
		The adverse effect on EFH is substantial. **This is a request for an expanded EFH consultation.**

Step 6: Consultation with NOAA Fisheries may also be required if the proposed action results in adverse impacts to other NOAA-trust resources, such as anadromous fish, shellfish, crustaceans, or their habitats as part of the Fish and Wildlife Coordination Act Some examples of other NOAA-trust resources are listed below. Inquiries regarding potential impacts to marine mammals or threatened/endangered species should be directed to NOAA Fisheries' Protected Resources Division.

6. OTHER NOAA-TRUST RESOURCES IMPACT ASSESSMENT

Species known to occur at site (list others that may apply)	Describe habitat impact type (i.e., physical, chemical, or biological disruption of spawning and/or egg development habitat, juvenile nursery and/or adult feeding or migration habitat). Please note, impacts to federally listed species of fish, sea turtles, and marine mammals must be coordinated with the GARFO Protected Resources Division.
alewife	The areas proposed for dredging provide potential food and refuge areas for this species, which may be prey for managed species. No more than minimal disruption of any adult feeding or migration from avoidance of dredging operations or from the reconstructed docks
American eel	
American shad	
Atlantic menhaden	
blue crab	The areas proposed for dredging provide potential food and refuge areas for this species, which may be prey for managed species. No more than minimal disruption of any adult feeding or migration from avoidance of dredging operations or from the reconstructed docks
blue mussel	
blueback herring	The areas proposed for dredging provide potential food and refuge areas for this species, which may be prey for managed species. No more than minimal disruption of any adult feeding or migration from avoidance of dredging operations or from the reconstructed docks

Eastern oyster	
horseshoe crab	
quahog	
soft-shell clams	
striped bass	The areas proposed for dredging provide potential food and refuge areas for this species, which may be prey for managed species. No more than minimal disruption of any adult feeding or migration from avoidance of dredging operations or from the reconstructed docks
other species:	

Useful Links

National Wetland Inventory Maps

EPA's National Estuaries Program

Northeast Regional Ocean Council (NROC) Data

Mid-Atlantic Regional Council on the Ocean (MARCO) Data

Resources by State:

Maine
Eelgrass maps

Maine Office of GIS Data Catalog

Casco Bay Estuary Partnership

Maine GIS Stream Habitat Viewer

New Hampshire
New Hampshire's Statewide GIS Clearinghouse, NH GRANIT

New Hampshire Coastal Viewer

Massachusetts
Eelgrass maps

MADMF Recommended Time of Year Restrictions Document

Massachusetts Bays National Estuary Program

Buzzards Bay National Estuary Program

Massachusetts Division of Marine Fisheries

Massachusetts Office of Coastal Zone Management

Rhode Island
Eelgrass maps

Narraganset Bay Estuary Program

Rhode Island Division of Marine Fisheries

Rhode Island Coastal Resources Management Council

Connecticut

Eelgrass Maps

Long Island Sound Study

CT GIS Resources

CT DEEP Office of Long Island Sound Programs and Fisheries

CT Bureau of Aquaculture Shellfish

Maps CT River Watershed Council

New York

Eelgrass report

Peconic Estuary Program

NY/NJ Harbor Estuary

New Jersey

Submerged Aquatic Vegetation mapping

Barnegat Bay Partnership

Delaware

Partnership for the Delaware Estuary

Center for Delaware Inland Bays

Maryland

Submerged Aquatic Vegetation mapping

MERLIN

Maryland Coastal Bays Program

Virginia

Submerged Aquatic Vegetation mapping

Appendix B

Site Photographs

Photo 1: View of existing conditions at Higbee Marina. (Photograph taken 3/16/2018 @ low tide -0.1' MLW)

Photo 2: View of existing dock conditions at Higbee Marina. (Photograph taken 3/16/2018 @ low tide -0.1' MLW)

Photo 3: View southeast at existing dock conditions at Higbee Marina. (Photograph taken 3/16/2018 @ low tide -0.1' MLW)

Photo 4: View west from marina entrance along Somers Point-Mays Landing Road at proposed reliency project location.

Photo 5: View north at existing conditions and proposed location of berm.

Photo 6: View east along Somers Point-Mays Landing Road and proposed berm location.

Appendix C

NJDEP Permit and USACE Public Notice

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION

Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 777-0454 or Fax: (609) 777-3656
www.state.nj.us/dep/landuse

PERMIT

In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.

Approval Date
January 17, 2018

Expiration Date
January 16, 2023

Permit Number(s):	**Type of Approval(s):**	**Enabling Statute(s):**
0121-17-0002.1 WFD170001	IP In-Water Waterfront Development Permit Water Quality Certificate	NJSA 12:5-3 et seq. WFD NJSA 13:9A-1 et seq. WA

Permittee:

Wes Swain
1 West New Jersey Ave
Somers Point, NJ 08244

Site Location:

Higbee Marina on Higbee Avenue
Block(s) & Lot(s): [1612, 1.01] [1612, 2.01]
Municipality: Somers Point City
County: Atlantic

Description of Authorized Activities:

This permit authorizes the dredging of Higbee Marina as depicted on the authorized plans. Dredging shall be limited to a depth of six feet below Mean Low Water (-6' MLW) with no overdredge. The volume of material to be dredged shall be limited to approximately six thousand eight hundred ninety six cubic yards (6,896 yds3) using a mechanical method via clamshell bucket.

In addition to dredging, this permit authorizes the reconstruction of docks and piers within the marina basin based on 1977 aerial photography. The reconstruction includes the addition of seven (7) new slips within the marina basin as shown on the approved plans.

Dredging is **prohibited from March 1 through June 30**, of any given year, to minimize adverse effects to the spawning and migration of anadromous fish.

This authorization to conduct activities within Ship Channel includes the issuance of a Water Quality Certificate.

This permit is authorized under and in compliance with the Coastal Zone Management Rules, N.J.A.C. 7:7, as amended through January 16, 2018.

Prepared by:

Magda Usarek-Witek, Environmental Specialist II

If the permittee undertakes any regulated activity authorized under a permit, such action shall constitute the permittee's acceptance of the permit in its entirety as well as the permittee's agreement to abide by the permit and all conditions therein.

Received and/or Recorded by County Clerk:

This permit is not valid unless authorizing signature appears on the last page.

APPROVED PLANS:

The drawings hereby approved are two (2) sheets prepared by Mott Associates, LLC, dated 6/28/17, entitled: "**HIGBEE MARINA, CITY OF SOMERS POINT, ATLANTIC COUTNY, NEW JERSEY, BLOCK 1612, LOTS 2 & 2.01**", Further Identified as:

"SITE PLAN", last revised 12/18/17, Sheet 3 of 4,

"DREDGING PLAN", last revised 1/8/18, Sheet 4 of 4.

SPECIAL CONDITIONS:

1. Prior to dredging, the permittee shall receive the following:
   a. All required local, state and federal approvals;
   b. United States Army Corps of Engineering authorization for the project. A copy of said authorization shall be kept onsite; and
   c. Valid Tidelands Instrument.
2. Dredging is **prohibited from March 1 through June 30**, of any given year, to minimize adverse effects to the spawning and migration of Anadromous fish – River Herring and Atlantic Sturgeon.
3. A construction report shall be completed and sent to the Office of Dredging and Sediment Technology 7 days prior to construction.
4. Upon completion of dredging a completion report shall be submitted to the Office of Dredging.
5. Prior to dredging, jersey barriers and silt fencing shall be erected around the perimeter of the dredged material dewatering area. This soil control measure must be constructed before dredging operations commence and shall be secured into the ground and maintained during the entire dredging operation.
6. Neither creosote nor any wood or other product treated with or containing creosote shall be sold, offered for sale, or used in this State. Nothing in this section shall prohibit the removal, demolition or repair of existing structures that contain products treated with or containing creosote.
7. The Permittee shall construct the dock with the dimensions shown on the approved drawings.

ACCEPTABLE USE DETERMINATION – FILL:

1. This permit authorizes the placement of four thousand four hundred and eighty five cubic yards (4,485 yds3) of dredged material from this project located at tax block 1953 lot 1.01 in the City of Somers Point, Cape May County for the reconstruction of an existing parking lot.

2. All dredge material used for the reconstruction of the parking lot referenced above shall be blended with Portland cement for structural stability, as determined by the letter dated January 3, 2018 from James Mott, P.E. (P.E. No. 29918).

3. All dredge material blending with Portland cement shall be blended within a hopper and transported via trucks. All trucks shall be tarped pursuant to the applicable State DOT requirements or applicable regulatory agency requirements.
4. The placement and use of dredge material within the fill area shall comply with all conditions of the Flood Hazard Individual Permit issued under File No. 0121-17-0003.1 FHA170001.
5. If the permittee proposes to place the dredged material from this project at a location different from that approved in this permit, written authorization in the form of a minor or major technical modification must be obtained from the Department prior to the transport of any dredged material to the alternative placement location.

ACCEPTABLE USE DETERMINATION – HABITAT ENHANCEMNET:

6. In addition, this permit authorizes the beneficial reuse of approximately two thousand four hundred and eleven cubic yards (2,411 yds3) for the construction of an embankment located on Somers Point- Mays Landing Road for the enhancement of habitat for native pollinator species.
7. Prior to dredging, jersey barriers and silt fencing shall be erected around the perimeter of the dredged material dewatering area. This soil control measure must be constructed before dredging operations commence and shall be secured into the ground and maintained during the entire dredging operation.
8. This soil control measure must be constructed before dredging operations commence and shall be secured into the ground and maintained during the entire dredging operation.
9. Dredged material shall be adequately dewatered (i.e. no free water) on-site prior to final placement site.
10. All trucks used to transport dredged material to the above referenced placement site shall be tarped pursuant to the applicable State DOT requirements or applicable regulatory agency requirements.
11. The blending of Portland Cement with any material used for the embankment is prohibited.
12. The placement and use of dredge material within the embankment area shall comply with all conditions of the Coastal Zone Management General Permit No. 24 under File No. 0121-17-0003.1 CZM170001.
13. If the permittee proposes to place the dredged material from this project at a location different from that approved in this permit, written authorization in the form of a minor or major technical modification must be obtained from the Department prior to the transport of any dredged material to the alternative placement location.

STANDARD CONDITIONS:

1. The issuance of a permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction or structure(s). Neither the State nor the Department shall, in any way, be liable for any loss of life or property that may occur by virtue of the activity or project conducted as authorized under a permit.

2. The issuance of a permit does not convey any property rights or any exclusive privilege.

3. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a permit.

4. A permittee conducting an activity involving soil disturbance, the creation of drainage structures, or changes in natural contours shall obtain any required approvals from the Soil Conservation District having jurisdiction over the site.

5. The permittee shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit.

6. The permittee shall immediately inform the Department by telephone at (877) 927-6337 (Warn DEP Hotline) of any noncompliance that may endanger the public health, safety, and welfare, or the environment. In addition, the permittee shall inform the Division of Land Use Regulation by telephone at (609) 777-0454 of any other noncompliance within two working days of the time the permittee becomes aware of the noncompliance, and in writing within five working days of the time the permittee becomes aware of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter. The written notice shall include:
   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times;
   c. If the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and
   d. The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

7. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of the permit.

8. The permittee shall employ appropriate measures to minimize noise where necessary during construction, as specified in N.J.S.A. 13:1G-1 et seq. and N.J.A.C. 7:29.

9. The issuance of a permit does not relinquish the State's tidelands ownership or claim to any portion of the subject property or adjacent properties.

10. The issuance of a permit does not relinquish public rights to access and use tidal waterways and their shores.

11. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:
   a. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of the permit;
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; and
   c. Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. Failure to allow reasonable access under this paragraph shall be considered a violation of this chapter and subject the permittee to enforcement action under.

12. The permittee and its contractors and subcontractors shall comply with all conditions, site plans, and supporting documents approved by the permit. Any noncompliance with a permit constitutes a violation of this chapter and is grounds for enforcement action under, as well as, in the appropriate case, suspension and/or termination of the permit.

13. All conditions, site plans, and supporting documents approved by a permit shall remain in full force and effect so long as the regulated activity or project, or any portion thereof, is in existence, unless the permit is modified.

14. For Coastal Permits, Flood Hazard Permits and Flood Hazard Verifications, the permittee shall record the permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is located. The permit shall be recorded within 30 calendar days of receipt by the permittee, unless the permit authorizes activities within two or more counties, in which case the permit shall be recorded within 90 calendar days of receipt. Upon completion of all recording, a copy of the recorded permit shall be forwarded to the Division of Land Use Regulation at the address set forth in the rules.

15. If any condition or permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect public health, safety, and welfare, or the environment.

16. A copy of the permit and all approved site plans and supporting documents shall be maintained at the site at all times and made available to Department representatives or their designated agents immediately upon request.

17. A permit shall be transferred to another person only in accordance with the regulations.

18. A permit can be suspended or terminated by the Department for cause.

19. The submittal of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of a permit.

20. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information.

21. The permittee shall submit written notification to the Bureau of Coastal and Land Use Compliance and Enforcement, 401 East State Street, 4th Floor, P.O. Box 420, Mail Code 401-04C, Trenton, NJ 08625, at least three working days prior to the commencement of regulated activities.

22. The permittee shall not cause or allow any unreasonable interference with the free flow of a regulated water by placing or dumping any materials, equipment, debris, or structures within or adjacent to the channel while the regulated activity(ies) is being undertaken. Upon completion of the regulated activity(ies), the permittee shall remove and dispose of in a lawful manner, all excess materials, debris, equipment, and silt fences and other temporary soil erosion and sediment control devices from all regulated areas.

23. The regulated activity shall not destroy, jeopardize, or adversely modify a present or documented habitat for threatened or endangered species, and shall not jeopardize the continued existence of any local population of a threatened or endangered species.

In accordance with the applicable regulations, any person who is aggrieved by this decision or any of the conditions of this permit may request an adjudicatory hearing within 30 calendar days after public notice of the decision is published in the DEP Bulletin. This request must include a completed copy of the Adjudicatory Hearing Request form. The DEP Bulletin is available through the Department's website at http://www.nj.gov/dep/bulletin and the form is available through the Division's website at http://www.nj.gov/dep/landuse/download/lur_024.pdf. In addition to requesting a hearing, a request may be filed with the Department's Office of Dispute Resolution to determine whether the matter is suitable for mediation. Information concerning the dispute resolution process is available at www.nj.gov/dep/odr.

If you need clarification on any section of this permit or conditions, please contact the Division of Land Use Regulation's Technical Support Call Center at (609) 777-0454.

Approved By:

Mark C Davis

Mark Davis, Supervisor
Office of Dredging and Sediment Technology
Division of Land Use Regulation

01/17/2018
Date

Original sent to Agent to record
c: Permittee
Construction Official

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION

Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 633-2289 or Fax: (609) 777-3656
www.state.nj.us/dep/landuse

PERMIT

In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.

Approval Date: JAN 12 2018

Expiration Date: JAN 11 2023

Permit Number(s):	Type of Approval(s):	Enabling Statute(s):
0121-17-0003.1 CZM170001 0121-17-0003.2 FHA170001	General Permit 24 Flood Hazard Area Individual Permit	N.J.S.A. 13:19-1 CAFRA N.J.S.A. 58:16A-50 FHA

Permittee:
Mr. Wes Swain
c/o City of Somers Point
1 West New Jersey Avenue
Somers Point, New Jersey 08244

Site Location:
Project Location: Somers Point-Mays Landing Road
See the Description of Authorized Activities below for the block and lots.
Municipality: City of Somers Point
County: Atlantic

Description of Authorized Activities: The General Permit 24 authorizes the removal of existing Phragmites and other invasive species along Somers Point-Mays Landing Road and the construction of an embankment utilizing dredge material from the dredging of Higbee Marina above the mean high water line along the road to provide habitat for native pollinator species. The embankment will be constructed within the right-of-way of Somers Point-Mays Landing Road and on Block 1953, Lot 1.01, Block 1952, Lot 1, Block 1950, Lot 1, Block 1949, Lot 1, Block 1948, Lot 1, and Block 1947, Lot 1. The Flood Hazard Area Individual Permit authorizes the removal of existing stones on the marina parking area and the placement of dredge material from the dredging of Higbee Marina in a tidal flood hazard area to raise the elevation of the parking area. The stones will be placed back on the parking area following the placement of the dredge material. The work under the Flood Hazard Area Individual Permit will take place on Block 1953, Lot 1.01. The work is shown on the approved plans referenced on the last page of this permit.

Prior to any work performed below the high tide line, the permittee must receive authorization from the Army Corps of Engineers pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. The Army Corps of Engineers Philadelphia District should be contacted directly at 215-656-6728.

This project is authorized under and in conditional compliance with the applicable Coastal Zone Management Rules (N.J.A.C. 7:7-1.1 et seq.), as amended on December 18, 2017, provided that all conditions to follow are met.

The Department has determined that this project meets the requirements of the Stormwater Management rules at N.J.A.C. 7:8.

Prepared by:
Lindsey J. Davis

Lindsey J. Davis, Environmental Scientist 2

THIS PERMIT IS NOT EFFECTIVE AND NO CONSTRUCTION APPROVED BY THIS PERMIT, OR OTHER REGULATED ACTIVITY, MAY BE UNDERTAKEN UNTILTHE APPLICANT HAS SATISFIED ALL PRE-CONSTRUCTION CONDITIONS AS SET FORTH HEREIN.

Received and/or Recorded by County Clerk:

This permit is not valid unless authorizing signature appears on the last page.

SPECIAL CONDITIONS:

1. Prior to ANY construction or site preparation, the existing stones located on Block 1953, Lot 1.01 in the area of the proposed embankment shall be removed.

2. Within 90 days of permit issuance, the property owner of Block 1953, Lot 1.01 must submit to the Division an application for a Waterfront Development Individual In-water Permit to attempt to legalize the existing dock structures on the property. This is not to be construed as a commitment to approve or deny any future application. Legalization of the existing dock structures is based upon compliance with the applicable Coastal Zone Management Rules at N.J.A.C. 7:7-1.1 et. seq.

3. To protect sensitive habitat for the State-listed osprey, the permittee shall adhere to a seasonal restriction on the use of heavy construction equipment/machinery within 300 meters of any active osprey nest along the project limit of disturbance from April 1st through August 31st of each calendar year. The initiation and implementation of work which generates disturbance (e.g. sound levels, visual interruption) that is out of character with what currently exists at or surrounding the anticipated work area during the restricted time period recommended above may result in the permittee being in violation of the "take" clauses within State of New Jersey (Endangered and Nongame Species Conservation Act, N.J.S.A. 23:2A-1) and federal (Migratory Bird Treaty Act, 16 USC 703-712) statutes.

4. All sediment barriers and other soil erosion control measures must be installed prior to the start of any clearing, grading or construction on site, and must be maintained in proper working condition throughout the entire duration of the project.

5. All sub-surface liners must be made of filter cloth or other permeable material.

6. The embankment shall be planted with native pollinator species following the installation of the embankment.

7. In accordance with N.J.A.C.7:13-12.6(g)4, the permittee must provide signs in the parking lot indicating that the lot will be subject to inundation during flood events.

8. The permittee is responsible for ensuring that the contractor and/or workers executing the activity(s) authorized by this permit have knowledge of the terms and conditions of the authorization and that a copy of this authorization is at the project site throughout the period the work is underway and available for review by any person.

9. This permit does not authorize any disturbance to any existing wetlands for construction of the project.

10. All areas of temporary disturbance shall be restored to its pre-existing condition and grade.

11. No staging of equipment may occur in wetlands.

12. All debris generated from the proposed project is to be disposed of at an approved disposal site.

13. This permit does not authorize dredging activities. If dredging is required in the future, a new Waterfront Development application showing compliance with Maintenance Dredging at N.J.A.C. 7:7-12.6 or New Dredging at N.J.A.C. 7:7-12.7 will be required to be submitted to this Division.

STANDARD CONDITIONS:

1. The issuance of a permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction or structure(s). Neither the State nor the Department shall, in any way, be liable for any loss of life or property that may occur by virtue of the activity or project conducted as authorized under a permit;

2. The issuance of a permit does not convey any property rights or any exclusive privilege;

3. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a permit;

4. A permittee conducting an activity involving soil disturbance, the creation of drainage structures, or changes in natural contours shall obtain any required approvals from the Soil Conservation District having jurisdiction over the site;

5. The permittee shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit;

6. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of the permit. The Department may, upon discovery of such unanticipated adverse effects, and upon the failure of the permittee to submit a report thereon, notify the permittee of its intent to suspend the permit, pursuant to the regulations;

7. The issuance of a permit does not relinquish the State's tidelands ownership or claim to any portion of the subject property or adjacent properties;

8. The issuance of a permit does not relinquish public rights to access and use tidal waterways and their shores;

9. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:

    i. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of the permit;
    ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; and
    iii. Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. Failure to allow reasonable access under this paragraph shall be considered a violation of this chapter and subject the permittee to enforcement action under;

10. All conditions, site plans, and supporting documents approved by a permit shall remain in full force and effect so long as the regulated activity or project, or any portion thereof, is in existence, unless the permit is modified;

11. If any condition or permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect public health, safety, and welfare, or the environment;

12. A permit shall be transferred to another person only in accordance with the regulations;

13. A permit can be suspended or terminated by the Department for cause;

14. The submittal of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of a permit;

15. The permittee shall submit written notification to the Bureau of Coastal and Land Use Compliance and Enforcement, 401 East State Street, 4th Floor, P.O. Box 420, Mail Code 401-04C, Trenton, NJ 08625, at least three working days prior to the commencement of regulated activities;

16. The permittee shall not cause or allow any unreasonable interference with the free flow of a regulated water by placing or dumping any materials, equipment, debris, or structures within or adjacent to the channel while the regulated activity(ies) is being undertaken. Upon completion of the regulated activity(ies), the permittee shall remove and dispose of in a lawful manner, all excess materials, debris, equipment, and silt fences and other temporary soil erosion and sediment control devices from all regulated areas; and

17. The regulated activity shall not destroy, jeopardize, or adversely modify a present or documented habitat for threatened or endangered species, and shall not jeopardize the continued existence of any local population of a threatened or endangered species.

ADDITIONAL CONDITIONS FOR A COASTAL PERMIT:

1. The permittee shall record the permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is located. The permit shall be recorded within 30 calendar days of receipt by the permittee. Upon completion of all recording, a copy of the recorded permit shall be forwarded to the Division of Land Use Regulation at the address listed on the first page of this permit.

2. This authorization for a General Permit is valid for five years from the date of issuance. This authorization may be extended one time for five years, in accordance with the requirements at N.J.A.C. 7:7-3.7. All regulated activities being conducted pursuant to this authorization shall immediately cease on the date the authorization expires. If the authorization expires and the permittee intends to commence or continue the regulated activities, the permittee shall obtain a new authorization or permit under this chapter authorizing the regulated activities. The Department shall issue a new authorization only if the project is revised where necessary to comply with the requirements in effect when the application for the new authorization is declared complete for review.

APPROVED PLANS:

The project is shown on plans entitled "City of Somers Point, Atlantic County, New Jersey, Resiliency Project", dated 5/1/2017, prepared by James A. Mott, P.E., P.L.S. from Mott Associates, LLC, and further identified as:

Sheet 5 of 13 – "Grading & Site Plan Phase I", last revised on 1/8/2018
Sheet 6 of 13 – "Grading & Site Plan Phase I", last revised on 1/8/2018
Sheet 7 of 13 – "Grading & Site Plan Phase II", last revised on 1/8/2018
Sheet 8 of 13 – "Grading & Site Plan Phase II", last revised on 1/8/2018
Sheet 9 of 13 – "Landscaping Plan", last revised on 12/30/2017
Sheet 10 of 13 – "Landscaping Plan", last revised on 12/30/2017
Sheet 11 of 13 – "Landscaping Plan", last revised on 12/30/2017
Sheet 13 of 13 – "Construction Details", last revised on 7/7/2017

In accordance with the applicable regulations, any person who is aggrieved by this decision or any of the conditions of this permit may request an adjudicatory hearing within 30 calendar days after public notice of the decision is published in the DEP Bulletin. This request must include a completed copy of the Adjudicatory Hearing Request form. The DEP Bulletin is available through the Department's website at http://www.nj.gov/dep/bulletin and the form is available through the Division's website at http://www.nj.gov/dep/landuse/download/lur_024.pdf. In addition to requesting a hearing, a request may be filed with the Department's Office of Dispute Resolution to determine whether the matter is suitable for mediation. Information concerning the dispute resolution process is available at www.nj.gov/dep/odr.

If you need clarification on any section of this permit or the conditions of this permit, please contact Lindsey J. Davis of our staff by email at Lindsey.Davis@dep.nj.gov or by phone at (609)633-2289.

Approved By:

Ryan J. Anderson, Bureau Chief
Bureau of Coastal Regulation
Division of Land Use Regulation

1/12/18
Date

Original sent to Agent to record
c: Permittee
NJDEP Bureau of Coastal and Land Use Enforcement, Toms River
City of Somers Point Municipal Clerk
City of Somers Point Municipal Construction Official

US Army Corps of Engineers
Philadelphia District
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice

Public Notice No. **CENAP-OP-R-2015-1060-24** Date **February 2, 2018**

Application No. File No.

In Reply Refer to: **REGULATORY BRANCH**

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: City of Somers Point
1 West New Jersey Avenue
Somers Point, New Jersey 08244

AGENT: Mott Associates, LLC
3122 Fire Road
Egg Harbor Township, New Jersey 08234

WATERWAY: Ship Channel (marina) and Patcong Creek (reuse of dredged material)

LOCATION:

Marina (docks/dredging): Decimal Latitude: 39.311358° N; Longitude: -74.592378°
Beneficial Reuse (west end): Decimal Latitude: 39.316000° N; Longitude: -74.628042°
(east end): Decimal Latitude: 39.314980° N; Longitude: -74.622846°

The proposed site of the docks and dredging project is the Higbee Marina, owned by the City of Somers Point. It is located in and along Ship Channel, approximately 2,000 feet northeast of the Route 52 bridge, at 198 Higbee Avenue, Block 1612, Lots 2 and 2.01, in the City of Somers Point, Atlantic County, New Jersey.

The proposed site for beneficial reuse of dredged material is situated along the north side of Somers Point – Mays Landing Road (County Road 559), between the Patcong Creek bridge on the west, and the Garden State Parkway on the east. This location is also within the City of Somers Point.

ACTIVITY:

The applicant proposes to upgrade a marina facility by removing dock structures, constructing new docks, and performing dredging. There is an existing "U-shaped" dock arrangement, which will be removed. That includes the following structures: a) 225x5' and 133x5' docks perpendicular to shore; b) 18x30' (with building) and 37x5' docks parallel to shore; and c) 96 existing pilings. In their place, the applicant would construct the following new structures:

72x6' fixed dock perpendicular to shore
18x30' (with building) and 13x6' fixed docks parallel to shore
130x6' and 214x6' floating docks perpendicular to shore
Seven (7) dock "fingers:: five 25x3'; one 20x8'; one 25x6'.
48 new pilings

The project site contains mapped shellfish habitat. As noted on the applicant's project plans, "All structures to be made of non-polluting materials." There would be a total of 22 boat slips. Two would be designated for a water taxi and a fishing excursion boat. The remainder would be for transient boaters.

Dredging would be by mechanical (bucket) method. A maximum total of 6,896 cubic yards (CY) of material would be dredged from a maximum area of approximately 0.9 acre, to a maximum depth of six (6) feet below mean low water. The dredged material has been characterized as approximately 40 percent sand, with the remainder fine-grained or silty in nature. Dredge material would be moved to the staging area in the adjacent City-owned parking lot using a long reach excavator. It would be contained by Jersey barriers and silt fencing.

Following dewatering, 2,411 CY of the dredged material would be loaded into lined dump trucks and transported to the beneficial reuse site. It would be used to construct an embankment or berm along the north side of Somers Point – Mays Landing Road. The berm would have a 1-foot wide top (at various elevations) and a 2:1 slope (H:V). The remaining 4,485 CY of dredged material would be mixed with dry Portland cement prior to being loaded and transported to the beneficial reuse site. It would be used for structural fill to raise the parking lot at Gateway Marina along Patcong Creek by approximately 3.5 feet above the existing grade.

The top of the embankment along the road would be at 5-6' NAVD 88, while the top of the berm along the parking lot would be at 8' NAVD 88. The embankment/berm would be planted with native vegetation. While the proposed fill would not impact delineated wetlands adjacent to the road and parking lot, some portions (totaling 0.11 acre) would be placed below the elevation of the high tide line (HTL), which, in the absence of wetlands, represents the landward limit of the Corps' Section 404 jurisdiction in tidal waters. Of the total volume of material to be placed, approximately 36 CY would be placed below the HTL for the road embankment. Approximately 673 CY would be placed below the existing HTL to raise the parking lot and construct that berm.

The applicant (City of Somers Point) has been approved for federal funding for the proposed work from the U.S. Department of the Interior through two separate grant programs:

The first grant, for the marina improvements, is from the Boating Infrastructure Grant Program, which is administered by the U.S. Fish and Wildlife Service. This money is being granted to the New Jersey Department of Transportation, Office of Maritime Resources, through their Marina Infrastructure Improvement Program. The City of Somers Point is their sub-grantee.

The second grant, for the beneficial reuse of dredged material, is from the National Fish and Wildlife Foundation through their Hurricane Sandy Coastal Resiliency Competitive Grant Program.

The State of New Jersey, Department of Environmental Protection (NJDEP) has issued a Waterfront Development Permit and Water Quality Certificate for the proposed marina work, including docks, dredging and placement of the dredged material for beneficial reuse as described above on January 17, 2018 (NJDEP File No. 0121-17-0002.1). They also issued a Coastal General Permit 24 and a Flood Hazard Area Individual Permit for the beneficial reuse project on January 12, 2018 (NJDEP File No. 0121-17-0003.1, 3.2).

The applicant has stated the following as their position with regard to (a) avoidance and minimization of impacts to aquatic resources, and (b) compensatory mitigation for such impacts:

"Impacts to the waters of the United States are minimized by proposing an embankment with the maximum slope that the dredge material will remain stable and by using native plantings to replace existing invasive species. In addition, the proposed embankment was moved as far away from the waters of the United States as feasible. Moving the proposed embankment so that waters of the United States are not affected creates adverse conditions for the County Road (as per County Engineer) and makes the existing marina parking lot more difficult for vehicles to navigate. NJDEP and the County also would not permit a retaining wall for the project.

Compensatory mitigation should not be required because the impacts to the waters of the United States are minimal since the area of the impacts are already actively disturbed (vegetation is frequently cut) with invasive species. The proposed area of the impacts will planted with native vegetation to support native plant and animal species."

PURPOSE: The applicant has provided a two-part project purpose statement as quoted below:

"The purpose of the proposed project is to encourage transient boaters to Somers Point."

"The purpose of the resiliency embankment is the beneficial reuse of dredged material to reduce nuisance flooding along Somers Point – Mays Landing Road and create an environmental uplift by removing invasive, non-native plant species with native pollinator species."

A preliminary review of this application indicates that species listed under the Endangered Species Act (ESA) may be present in the action area. There is no designated or proposed critical habitat for such species in the action area. The Philadelphia District of the Corps of Engineers will forward this public notice to the U.S. Fish and Wildlife Service and the National Marine

Fisheries Service. As noted above, the U.S. Department of the Interior is providing federal funding for this project through two separate grant programs. The U.S. Fish and Wildlife Service (Service) is acting as the lead federal agency responsible for compliance and consultation under Section 7 of the ESA, as amended. The Corps of Engineers will cooperate with the Service and other agencies regarding potential impacts to federally listed species. ESA Section 7 consultation will be concluded prior to the final decision on this permit application.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit (or modification) will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of any Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the proposed work should be submitted, in writing, within 15 days to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

The permit area may yield resources eligible for inclusion in the National Register of Historic Places (NHPA). The New Jersey Historic Preservation Office has rendered the opinion that the project does not constitute an encroachment upon known historic resources in the area. As the lead federal agency, the U.S. Fish and Wildlife Service (Service) will make a determination as to whether the proposed project is an undertaking that could affect historic resources, and they will complete any necessary compliance activities associated with Section 106 of the NHPA.

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) requires all federal agencies to consult with the NOAA Fisheries all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat

(EFH). A preliminary review of this application indicates that EFH is present within the project area. As noted above, the U.S. Fish and Wildlife Service (Service) is providing federal funding for the marina project. They have designated their grantee administrator, the New Jersey Department of Transportation, to act on their behalf for any necessary compliance and consultation under the MSFCMA. The Corps of Engineers will cooperate with the Service and other agencies regarding potential impacts to managed species. Consultation will be concluded prior to the final decision on this permit application.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

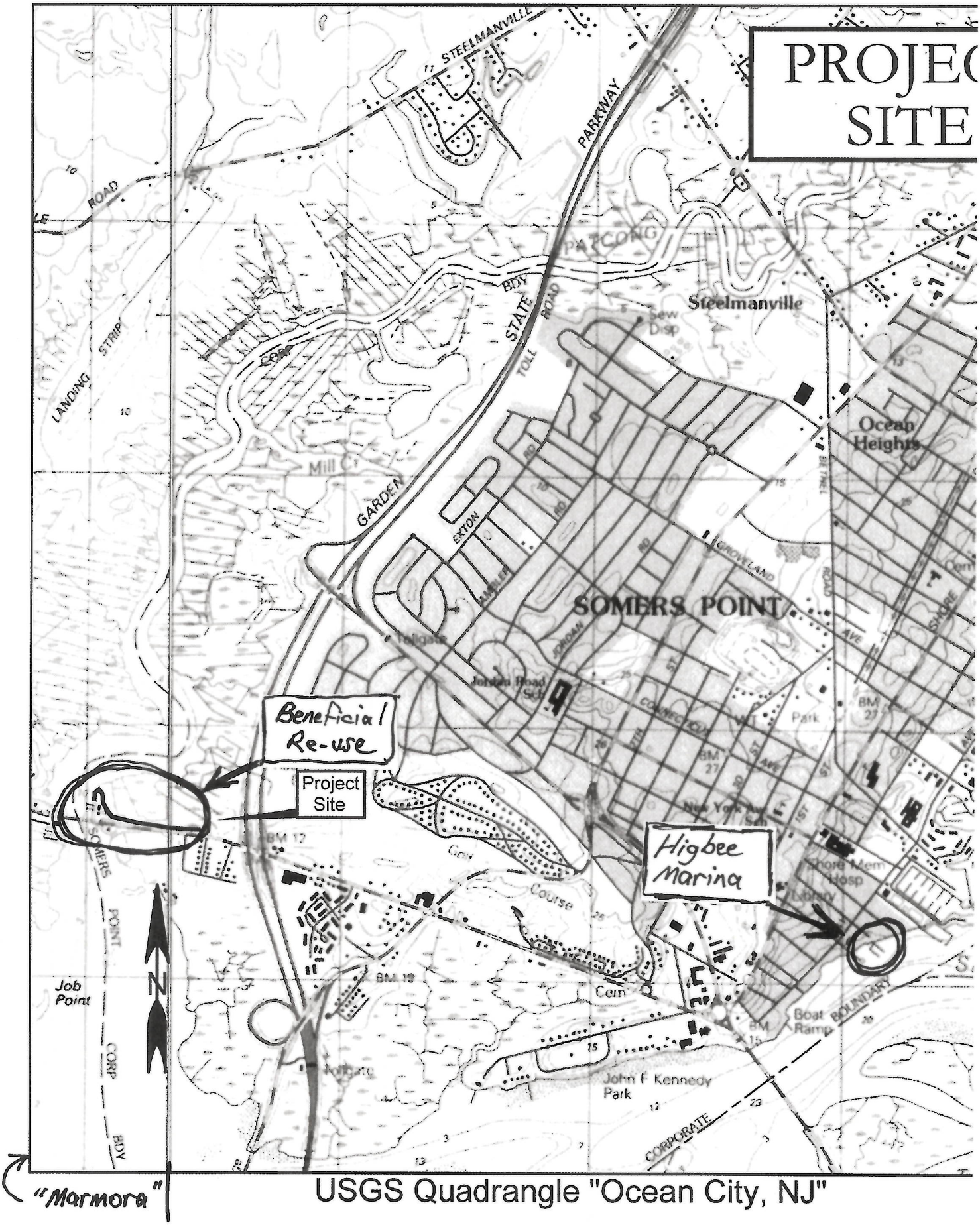
In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

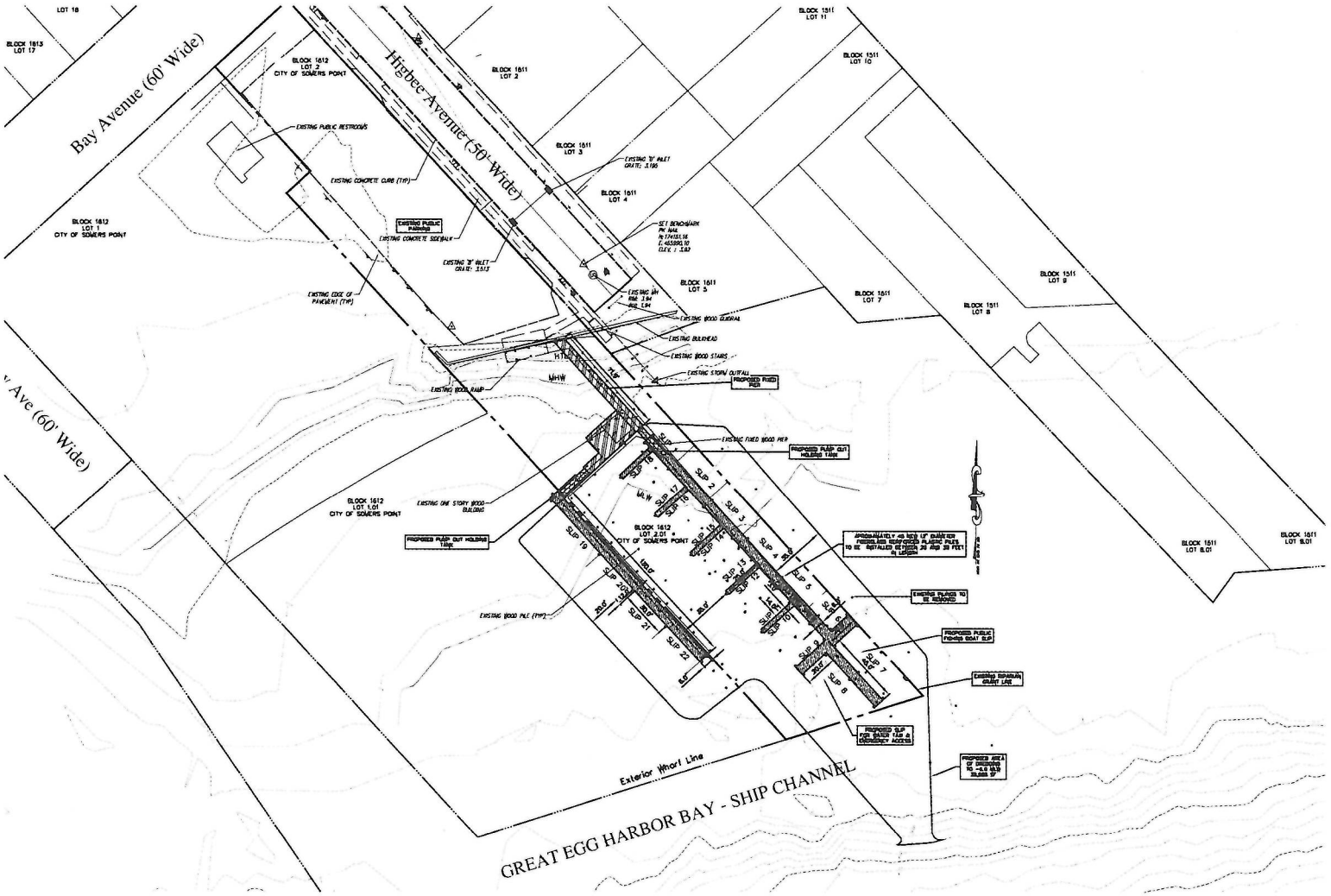
Additional information concerning this permit application may be obtained by calling James Boyer at (215) 656-5826, by electronic mail to James.N.Boyer@usace.army.mil, or by writing to this office at the above address.

Edward E. Bonner
Chief, Regulatory Branch



USGS Quadrangle "Ocean City, NJ"

Location Map



Tide Station 8534975

All elevations are in NAVD 88

Mean Low Water (MLW) = -2.19
Mean High Water (MHW) = 1.34
Spring High Tide Line (SHTL) = 2.05
High Tide Line (HTL) = 2.80

SYMBOL LEGEND

Notes: 1. All Elevations are in NAVD 88 Datum
2. All Structures to be made of non-polluting materials

By	Revisions	Date
GKS	Revised HTL	12/18/17
GKS	Added HTL	11/8/17
GKS	Revised Dock Configuration	6/26/17

James A. Mott
Professional Engineer & Land Surveyor
New Jersey License No. 20918
Date 5/1/17

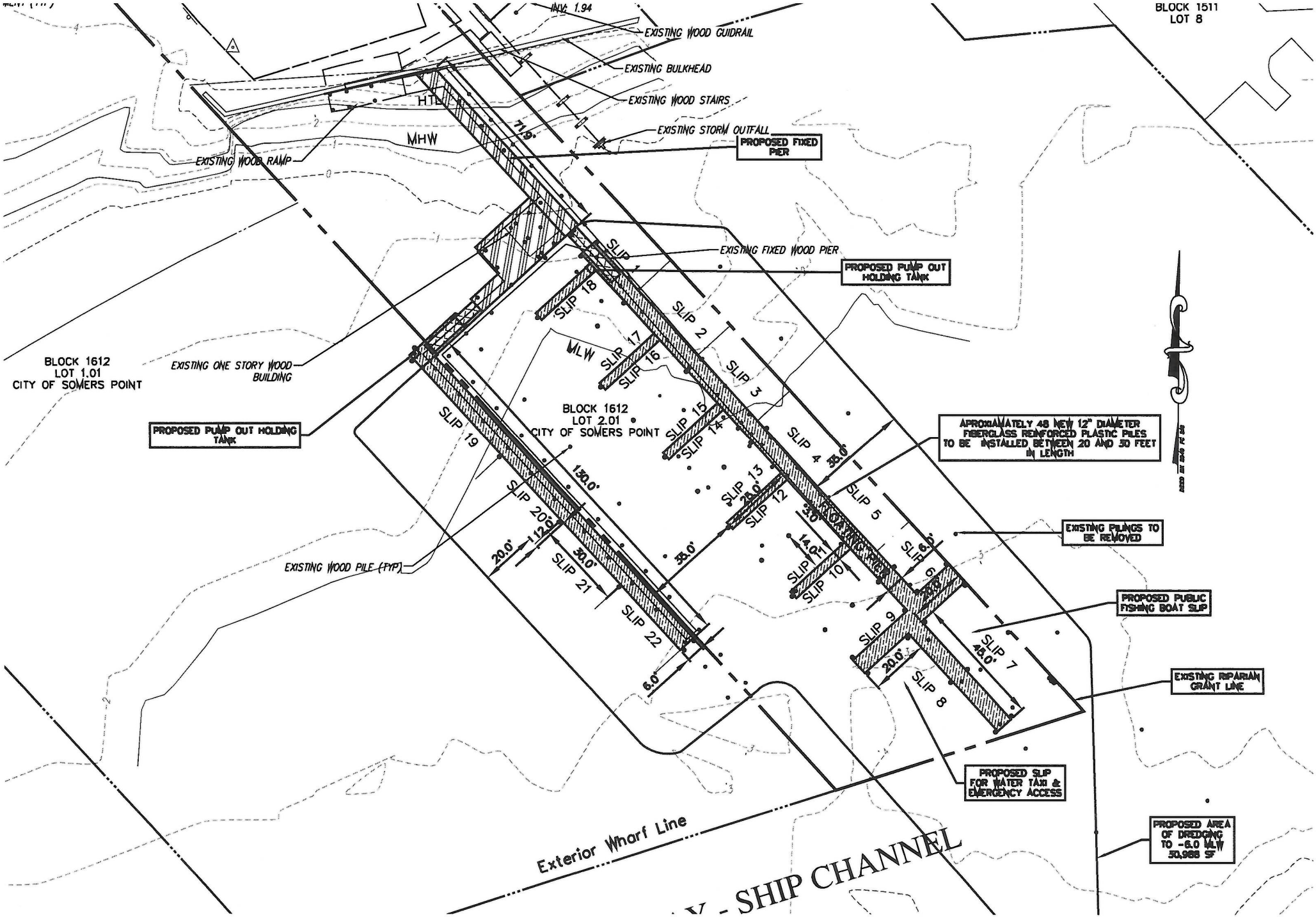
Designed	Drawn	Checked	Approved	Date
GKS	GKS	GKS	JAM	5/1/17

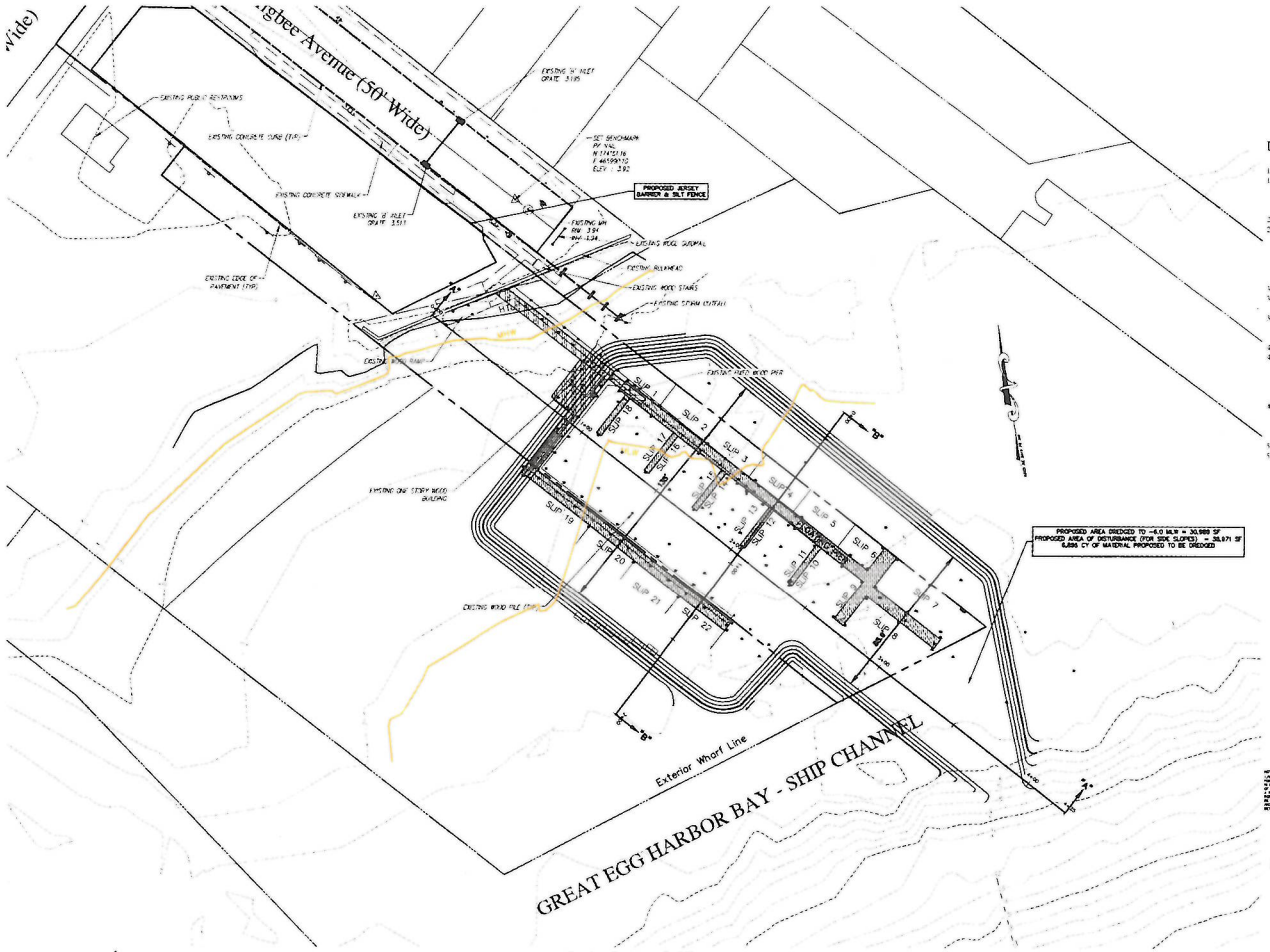
MOTT ASSOCIATES, LLC
CONSULTING ENGINEERS & PLANNERS
3122 Fire Road
Egg Harbor Township, New Jersey 08234
Phone: (609) 926-1551
Fax: (609) 926-1521
New Jersey Certificate of Authorization No. 24GA27996600

City of Somers Point
Atlantic County, New Jersey
Higbee Marina
Site Plan
Block 1612, Lots 2 & 2.01

SOMERS POINT

Job No.	Sheet	
7031.8	SITE	
	B/O	T/SM
	3	4


INV. 1.94
EXISTING WOOD GUIDRAIL
EXISTING BULKHEAD
EXISTING WOOD STAIRS
EXISTING STORM OUTFALL
PROPOSED FIXED PIER
HTL
MHW
71.9'
EXISTING WOOD RAMP
BLOCK 1511
LOT 8
EXISTING FIXED WOOD PIER
PROPOSED PUMP OUT HOLDING TANK
SLIP 1
SLIP 18
SLIP 2
MLW
SLIP 17
SLIP 16
SLIP 3
BLOCK 1612
LOT 1.01
CITY OF SOMERS POINT
EXISTING ONE STORY WOOD BUILDING
BLOCK 1612
LOT 2.01
CITY OF SOMERS POINT
SLIP 15
SLIP 14
SLIP 4
35.0'
APROXIMATELY 48 NEW 12" DIAMETER FIBERGLASS REINFORCED PLASTIC PILES TO BE INSTALLED BETWEEN 20 AND 30 FEET IN LENGTH
PROPOSED PUMP OUT HOLDING TANK
SLIP 19
130.0'
SLIP 13
20.0'
SLIP 12
SLIP 5
3.0'
FLOATING DOCK
EXISTING PILINGS TO BE REMOVED
SLIP 20
112'
20.0'
30.0'
35.0'
14.0'
SLIP 11
SLIP 6
6.0'
EXISTING WOOD PILE (TYP.)
SLIP 21
SLIP 10
PROPOSED PUBLIC FISHING BOAT SLIP
SLIP 22
SLIP 9
SLIP 7
45.0'
6.0'
20.0'
SLIP 8
EXISTING RIPARIAN GRANT LINE
PROPOSED SLIP FOR WATER TAXI & EMERGENCY ACCESS
Exterior Wharf Line
PROPOSED AREA OF DREDGING TO -6.0 MLW 50,988 SF
- SHIP CHANNEL



Notes: 1. All Elevations are in NAVD 88 Datum
2. MLW is -2.19 NAVD 88 Station Great Egg Harbor Bay

DREDGING NOTES

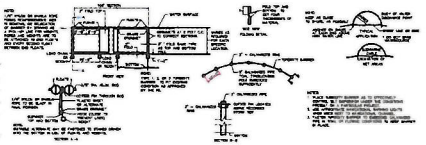
1.0 DREDGING
1.1 MATERIALS WILL BE MECHANICALLY DREDGED FROM DREDGE SITE IN MARINA TO LIMITS SHOWN. TURBIDITY BARRIERS SHALL BE USED DURING DREDGING OPERATIONS

2.0 MATERIAL TO BE USED FOR RESILIENCY EMBANKMENT, 2,411 CY
2.1 MATERIALS WILL BE MECHANICALLY DREDGED AND PLACED IN DEWATERING AREA IN ADJACENT WILLIAM MORROW FREE PUBLIC BEACH PARKING LOT WITH JERSEY BARRIERS AND SILT FENCE. ANY AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS WILL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER. SEDIMENT TO REMAIN UNTIL DEWATERED

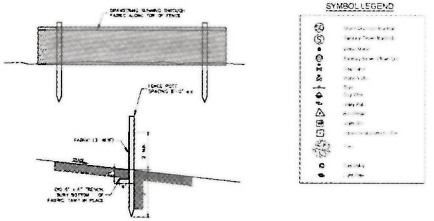
3.0 MATERIAL TO BE USED FOR STRUCTURAL FILL 13,455 CY
3.1 MATERIAL WILL BE MECHANICALLY DREDGED AND MIXED WITH DRY PORTLAND CEMENT ON BOTH BARGE
3.2 MATERIAL WILL BE LOADED ONTO WATERTIGHT TRUCKS AND SPREAD AS STRUCTURAL FILL SITE UNTIL MATERIAL REACHES AN OPTIMUM MOISTURE CONTENT

4.0 SEDIMENT TRANSPORT
4.1 NO TRACKING OF SEDIMENT WILL BE PERMITTED ALONG THE HAUL ROUTE BETWEEN THE STAGING AND THE DISPOSAL SITE. THE CONTRACTOR SHALL TAKE NECESSARY MEASURES TO AVOID SPILLING OF MATERIAL ALONG THE HAUL ROUTE. THE CONTRACTOR IS RESPONSIBLE TO CLEAN UP ANY SEDIMENTATION ALONG THE HAUL ROUTE IN ACCORDANCE WITH APPLICABLE SOIL EROSION STANDARDS AND REGULATIONS AT NO ADDITIONAL COST TO THE OWNER.
4.2 ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AND REGULATIONS SHALL APPLY TO THE TRANSPORTING OF SEDIMENT MATERIAL THROUGHOUT THE DURATION OF THE PROJECT AND FOR ALL MATERIAL HANDLING BETWEEN SITES

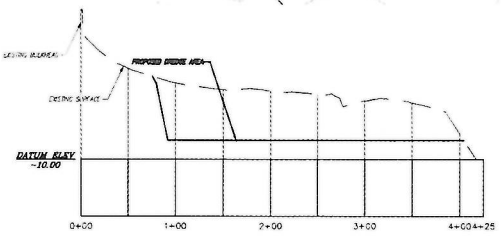
5.0 FINAL CLEAN UP
5.1 THE PARKING LOT AND ALL ANCILLARY AREAS AFFECTED BY THE CONSTRUCTION OPERATIONS SHALL BE CLEANED AND RESTORED TO THE ORIGINAL PRE-CONSTRUCTION CONDITIONS OR BETTER



FLOATING TURBIDITY BARRIER



SILT FENCE DETAIL



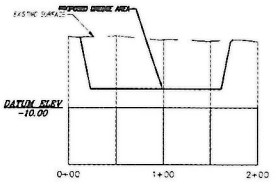
SECTION "A-A"

Graphic Scale 1"=30'

Tide Station 8534975

All elevations are in NAVD 88

Mean Low Water (MLW) = -2.19
Mean High Water (MHW) = 1.34
Spring High Tide Line (SHTL) = 2.05
High Tide Line (HTL) = 2.80



SECTION "B-B"

By	Revisions	Date
GKS	Added Details and Dredging Info	1/6/17
GKS	Revised HTL	12/18/17
GKS	Revised per NJDEP	1/8/18

James A. Mott
Professional Engineer and Surveyor
New Jersey License No. 29918

5/1/17

Design	Drawn	Checked	Approved	Date
GKS	GKS	GKS	JAM	5/1/17

MOTT ASSOCIATES, LLC
Engineering • Surveying • Planning
3122 Fire Road
Egg Harbor Township, New Jersey 08234
Phone: (609) 645-1110
Fax: (609) 645-1611
State Board of Professional Engineers & Land Surveyors
Certificate of Authorization No. GA 51000

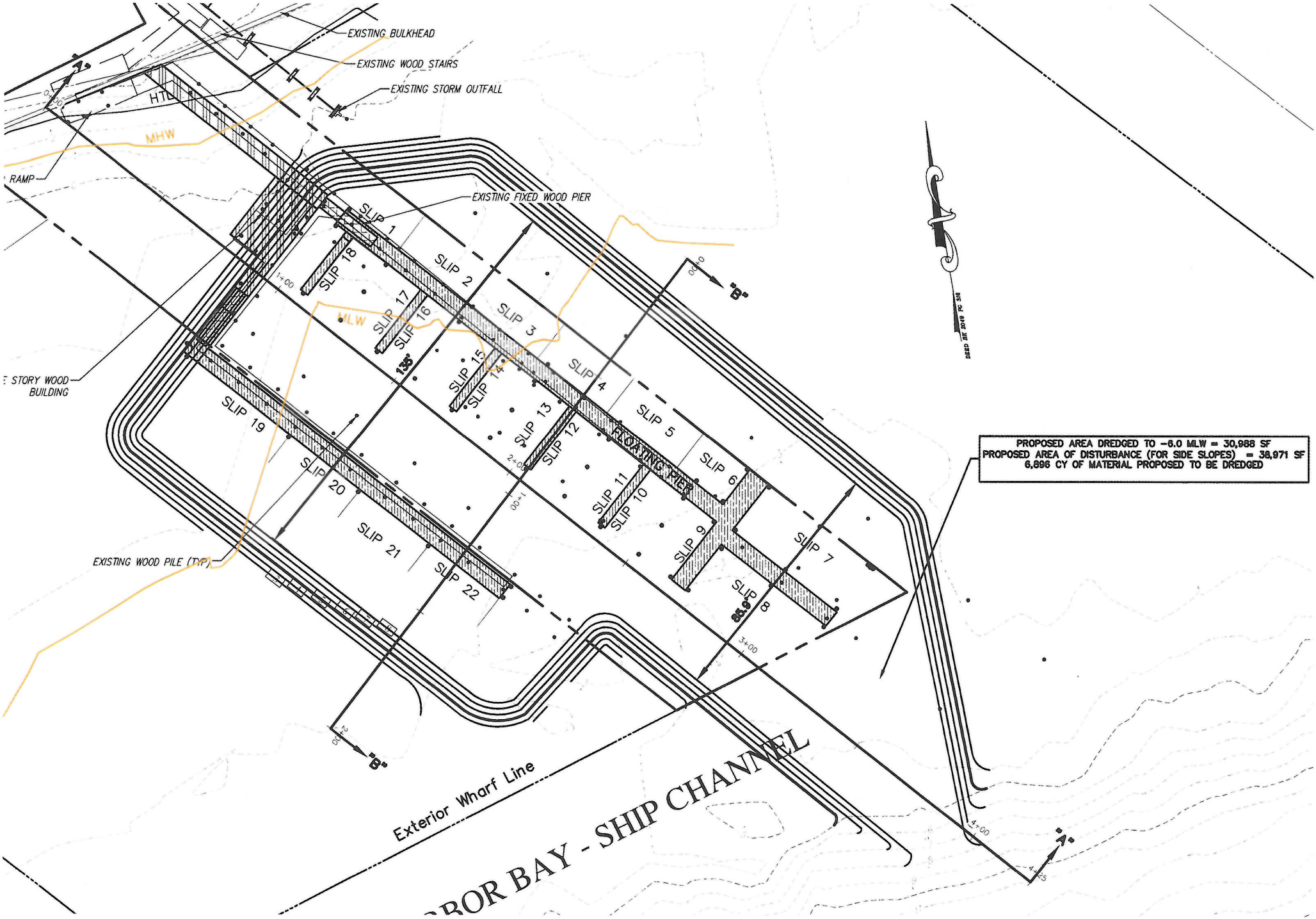
City of Somers Point
Atlantic County, New Jersey

Higbee Marina

Dredging Plan
Block 1612, Lots 2 & 2.01

SOMERS POINT

Job No.	Sheet	
7031.8	DREDGE	
	BPO	Total
	4	4


EXISTING BULKHEAD
EXISTING WOOD STAIRS
EXISTING STORM OUTFALL
HTL
MHW
RAMP
EXISTING FIXED WOOD PIER
SLIP 1
SLIP 2
SLIP 3
SLIP 4
SLIP 5
SLIP 6
SLIP 7
SLIP 8
SLIP 9
SLIP 10
SLIP 11
SLIP 12
SLIP 13
SLIP 14
SLIP 15
SLIP 16
SLIP 17
SLIP 18
SLIP 19
SLIP 20
SLIP 21
SLIP 22
135'
36.9'
MLW
FLOATING PIER
STORY WOOD BUILDING
EXISTING WOOD PILE (TYP.)
Exterior Wharf Line
ROR BAY - SHIP CHANNEL
DEED BK 2049 PG 316
PROPOSED AREA DREDGED TO -6.0 MLW = 30,988 SF
PROPOSED AREA OF DISTURBANCE (FOR SIDE SLOPES) = 38,971 SF
6,896 CY OF MATERIAL PROPOSED TO BE DREDGED

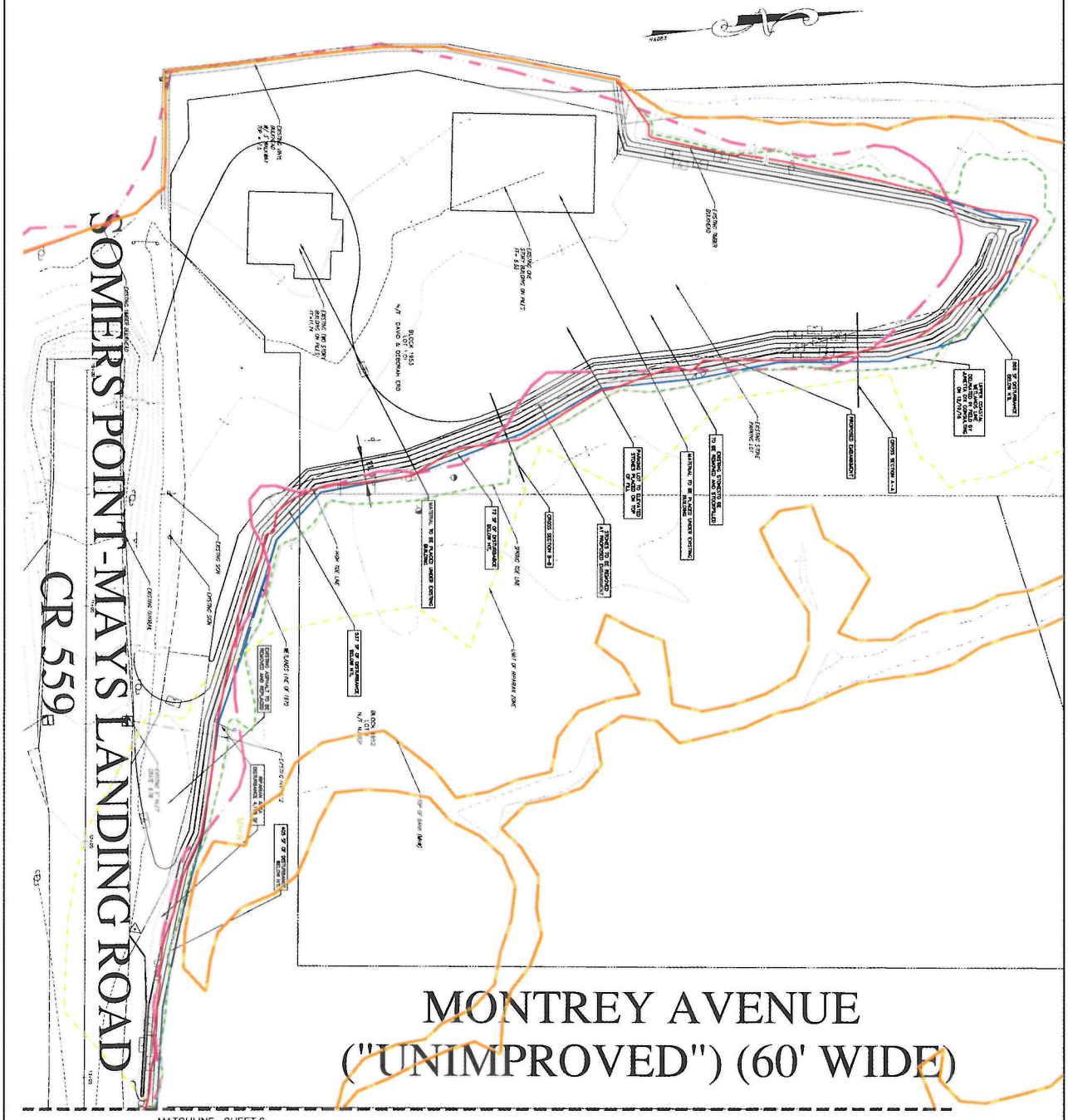
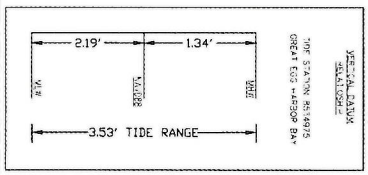
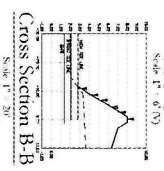
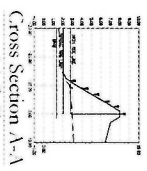
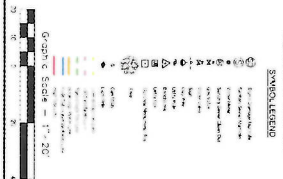


ILLUSTRATION NOT TO SCALE



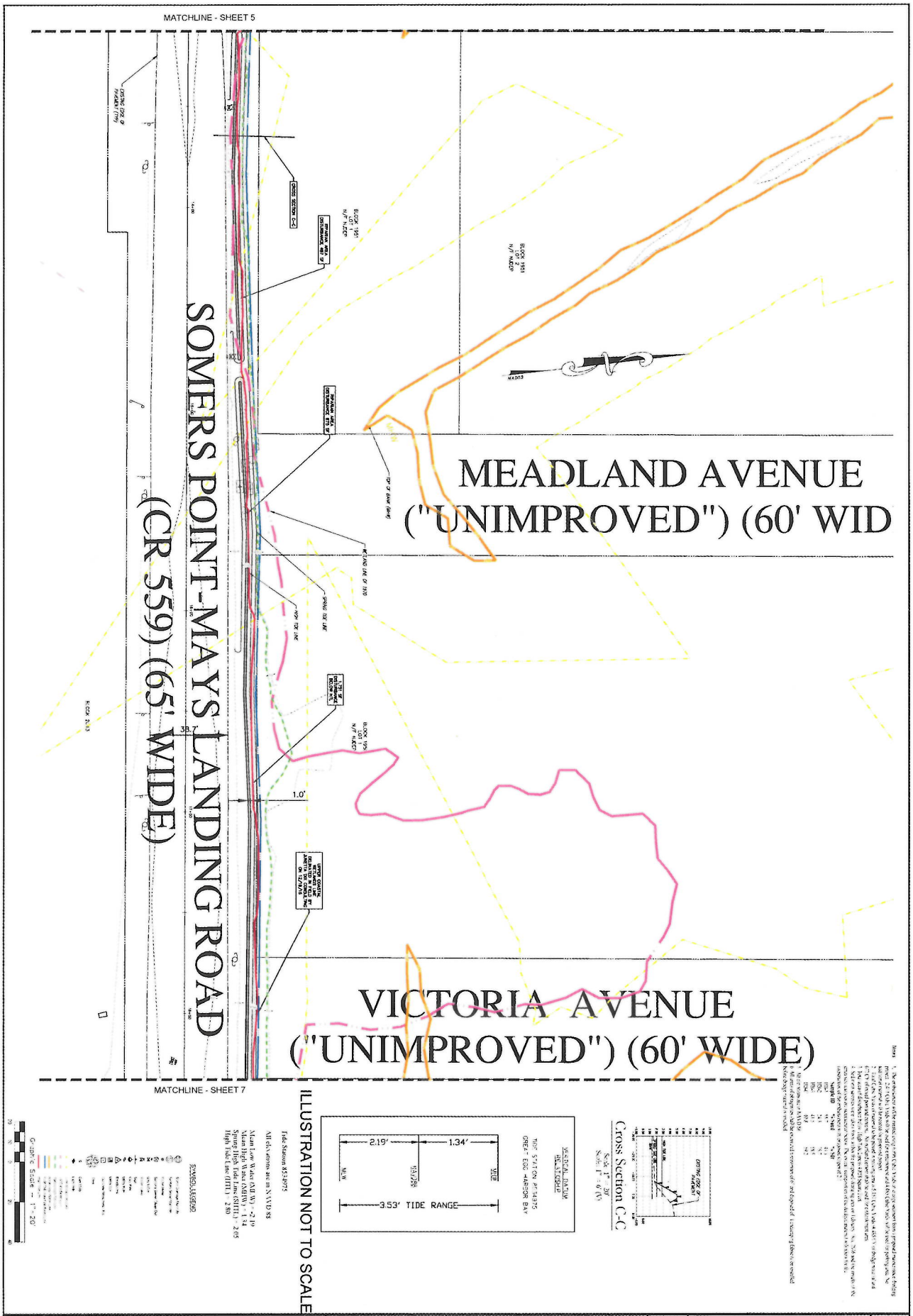






Job No. 7031.8	Sheet GRAD-1	SOMERS POINT NEW JERSEY	City of Somers Point Atlantic County, New Jersey **Resiliency Project** Grading & Site Plan Phase I	MOTT ASSOCIATES, LLC 3122 Fire Road Egg Harbor Township, New Jersey 08234 Phone: (609) 569-1501 Fax: (609) 569-1521 State Board of Professional Engineers & Land Surveyors Certificate of Authorization No. GA 21600	James A. Mott Professional Engineer & Land Surveyor New Jersey License No. 29918 Date 5/1/17	Designed GKS	Drawn GKS	Checked JAM	Approved JAM	Date 5/1/17	1/8/18	Revised per NJDEP/USACE Comments	GKS
											12/30/17	Revised per NJDEP/USACE Comments	GKS
											11/3/17	Revised per NJDEP Comments	GKS
											10/20/17	Revised per NJDEP Comments	GKS
											8/15/17	Revised per NJDEP Comments	GKS
											8/2/17	Revised per NJDEP Comments	GKS
											7/7/17	Revised Embankment Location	GKS
											Date	Revisions	By

Sheet 5 of 13



Job No. 7031.8	Sheet No. 6	Total Sheets 13	GRAD-2	SOMERS POINT NEW JERSEY	City of Somers Point Atlantic County, New Jersey **Resiliency Project** Grading & Site Plan Phase I	MOTT ASSOCIATES, LLC 3122 Fire Road Egg Harbor Township, New Jersey 08234 Phone: (609) 569-1551 Fax: (609) 569-1551 State Board of Professional Engineers & Land Surveyors Certificate of Authorization No. GA 21609	James A. Mott Professional Engineer & Land Surveyor New Jersey License No. 29918 Date 5/1/17	Designed GKS	Drawn GKS	Checked JAM	Approved JAM	Date 5/1/17

Date	Revisions	By
1/8/18	Revised per NJDEP/USACE Comments	GKS
12/30/17	Revised per NJDEP/USACE Comments	GKS
11/3/17	Revised per NJDEP Comments	GKS
10/20/17	Revised per NJDEP Comments	GKS
8/15/17	Revised per NJDEP Comments	GKS
8/2/17	Revised per NJDEP Comments	GKS
7/7/17	Revised Embankment Location	GKS

MATCHLINE - SHEET 6

SOMERS POINT-MAYS LANDING ROAD

(CR 559)

WOODLAWN AVENUE

("UNIMPROVED") (60' WIDE)

CLIVEDEN AVENUE

("UNIMPROVED") (60' WIDE)

MATCHLINE - SHEET 8

ILLUSTRATION NOT TO SCALE

2.19'

1.34'

3.53' TIDE RANGE

Cross Section E-E'

Cross Section D-D'

1/8/18	Revised per NJDEP/USACE Comments	GKS
12/30/17	Revised per NJDEP/USACE Comments	GKS
11/3/17	Revised per NJDEP Comments	GKS
10/20/17	Revised per NJDEP Comments	GKS
8/15/17	Revised per NJDEP Comments	GKS
8/2/17	Revised per NJDEP Comments	GKS
7/7/17	Revised Embankment Location	GKS
Date	Revisions	By

City of Somers Point
Atlantic County, New Jersey

Resiliency Project

Grading & Site Plan Phase II

Job No. 7031.8 | Sheet GRAD-3 | SHT 7 | TOTAL 13

SOMERS POINT NEW JERSEY

MOTT ASSOCIATES, LLC
3122 Fire Road
Egg Harbor Township, New Jersey 08234
Phone: (609) 569-1500
Fax: (609) 569-1521
State Board of Professional Engineers & Land Surveyors Certificate of Authorization No. GA 376000

James A. Mott
Professional Engineer & Land Surveyor
New Jersey License No. 29918
Date 5/1/17

Designed	Drawn	Checked	Approved	Date
GKS	GKS	JAM	JAM	5/1/17

MATCHLINE - SHEET 7

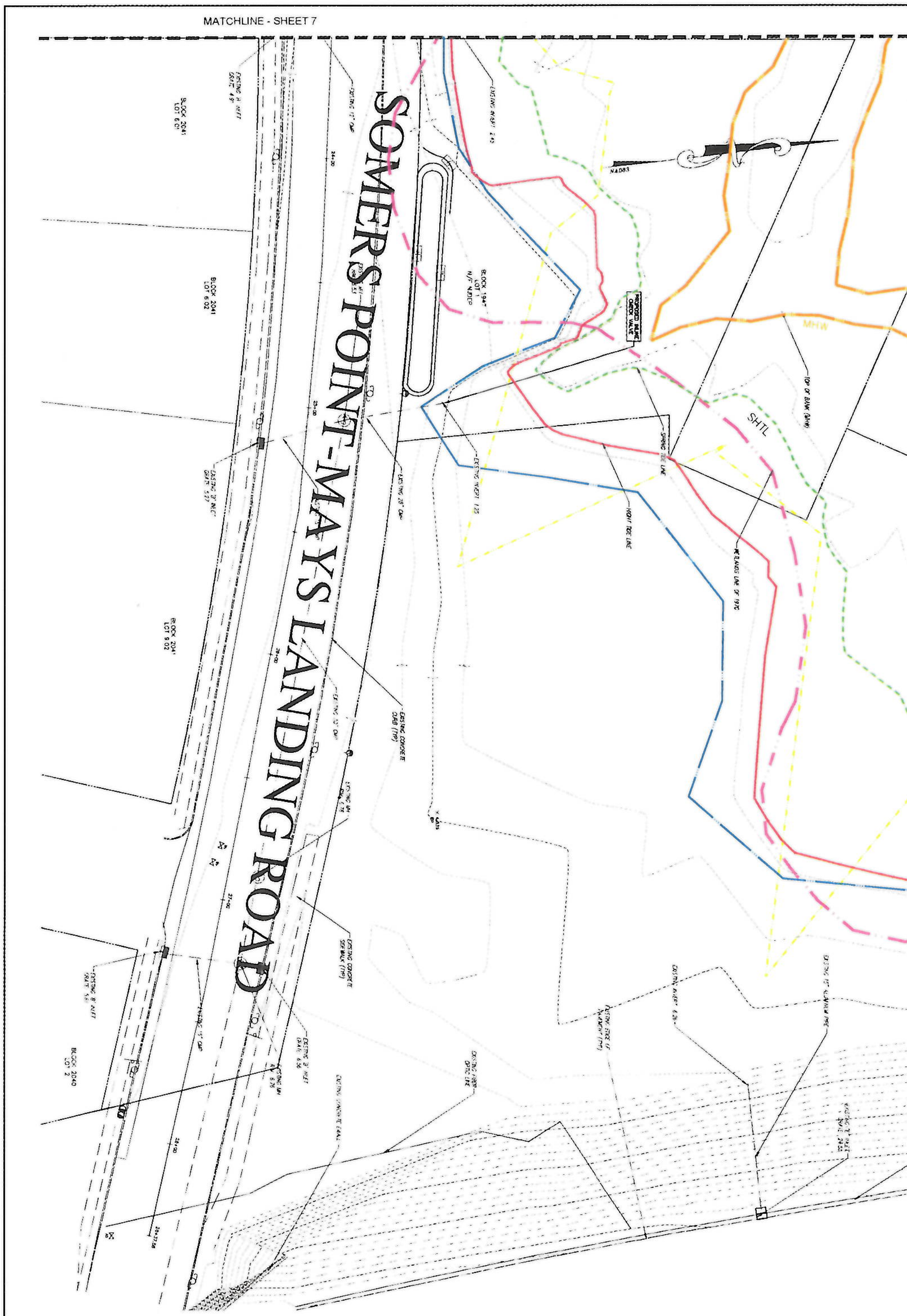
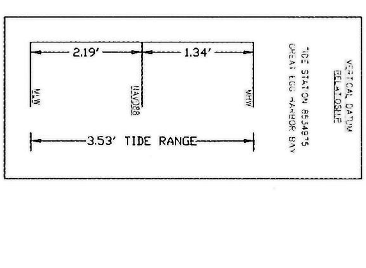


ILLUSTRATION NOT TO SCALE



Tide Station 8534975
All elevations are in NAVD 88
Mean Low Water (MLW) = -2.19
Mean High Water (MHW) = 1.34
Spring High Tide Line (SHTL) = 2.05
High Tide Line (HTL) = 2.80

SYMBOL LEGEND

Graphic Scale 1" = 20'

Date	Revisions	By
1/8/18	Revised per NJDEP/USACE Comments	GKS
12/30/17	Revised per NJDEP/USACE Comments	GKS
11/3/17	Revised per NJDEP Comments	GKS
10/20/17	Revised per NJDEP Comments	GKS
8/15/17	Revised per NJDEP Comments	GKS
8/2/17	Revised per NJDEP Comments	GKS
7/7/17	Revised Embankment Location	GKS

City of Somers Point
Atlantic County, New Jersey

Resiliency Project

Grading & Site Plan Phase II

SOMERS POINT NEW JERSEY

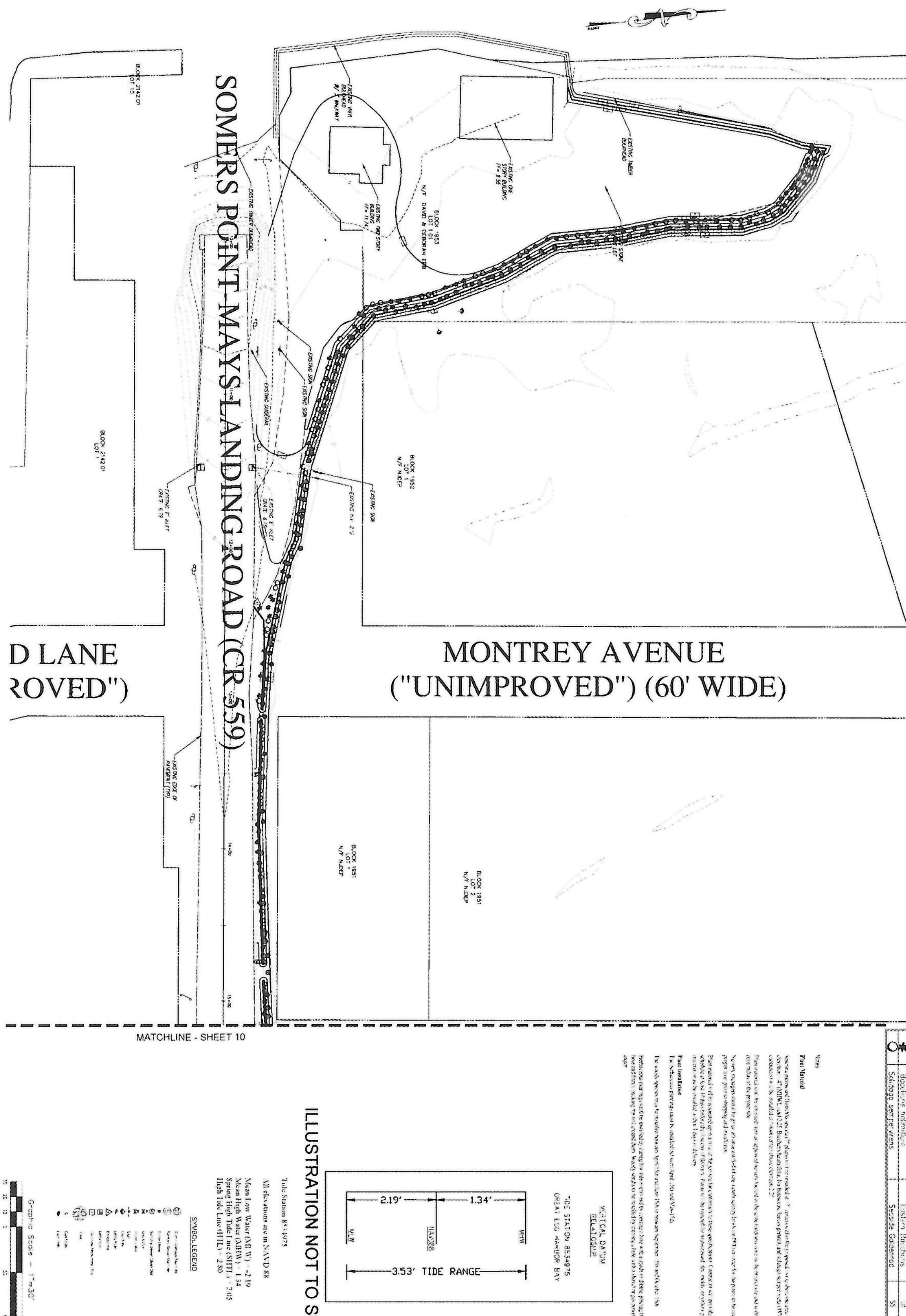
Mott Associates, LLC
3122 Fire Road
Egg Harbor Township, New Jersey 08234
Phone: (609) 569-1551
Fax: (609) 569-1521
State Board of Professional Engineers & Land Surveyors Certificate of Authorization No. GA 278820

James A. Mott
Professional Engineer & Land Surveyor
New Jersey License No. 29918

Date 5/1/17

Designed	Drawn	Checked	Approved	Date
GKS	GKS	JAM	JAM	5/1/17

Job No. 7031.8
Sheet GRAD-4
8 of 13 Total



LANDSCAPING LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	KEY	QUANTITY
	Spartina patens	Salt-meadow Cordgrass	SP	1100 SF
	Distichlis spicata	Spike Grass	DS	700 SF
	Iva frutescens	High-tide Bush	IF	37
	Juncus gerardii	Saltmarsh Rush	JG	80
	Baccharis halimifolia	Eastern Baccharis	BH	63
	Solidago sempervirens	Seaside Goldenrod	SS	58

Date	Revisions	By
12/30/17	Revised per NJDEP/USACE Comments	GKS
10/20/17	Revised per NJDEP Comments	GKS
8/15/17	Revised per NJDEP Comments	GKS
8/2/17	Revised per NJDEP Comments	GKS
7/7/17	Revised Embankment Location	GKS

Job No. 70318 | Sheet Land-1 | 9 of 13 (Total)

SOMERS POINT

City of Somers Point
Atlantic County, New Jersey

Resiliency Project

Landscaping Plan

MOTT ASSOCIATES, LLC
3122 Fire Road
Egg Harbor Township, New Jersey 08234
Phone: (609) 569-1551
Fax: (609) 569-1521
State Board of Professional Engineers & Land Surveyors
Certificate of Authorization No. GA 279029

James A. Mott
Professional Engineer & Land Surveyor
New Jersey License No. 29918

Date 5/1/17

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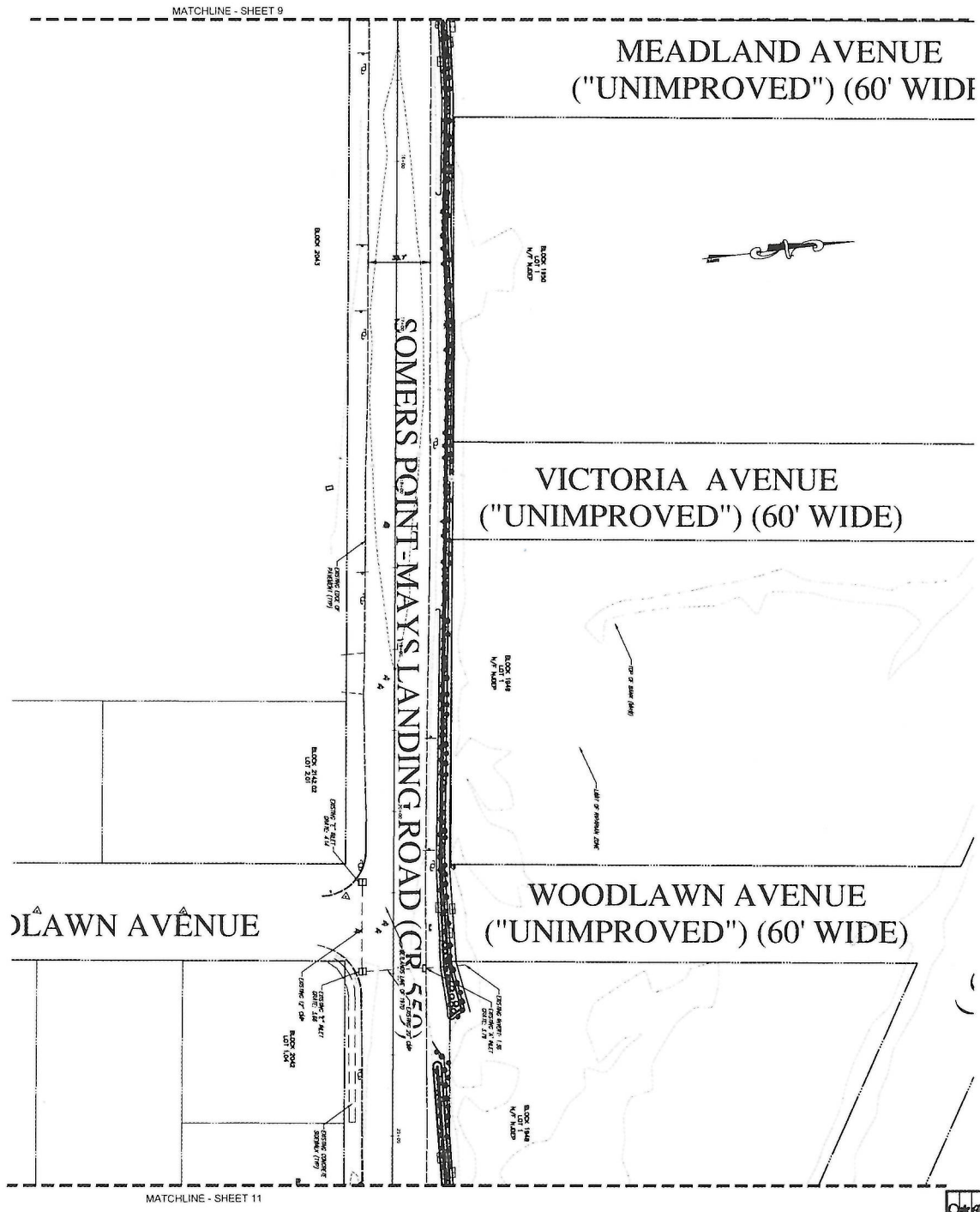
GKS	GKS	JAM	JAM	5/1/17



LANDSCAPING LEGEND

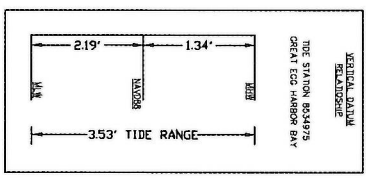
SYMBOL	BOTANICAL NAME	COMMON NAME	KEY	QUANTITY
	Spartina patens	Salt-meadow Cordgrass	SP	0 SF
	Distichlis spicata	Spike Grass	DS	0 SF
	Iva frutescens L.	High-tide Bush	IF	58
	Juncus gerardi	Saltmarsh Rush	JG	47
	Baccharis halimifolia	Eastern Baccharis	EB	65
	Solidago sempervirens	Seaside Goldenrod	SS	44

Notes

Plant Material

Plant Installation

ILLUSTRATION NOT TO SCALE



Tide Station 8534975

All elevations are in NAVD 88

Mean Low Water (MLW) = 2.19
Mean High Water (MHW) = 1.34
Spring High Tide Line (SHTL) = 2.05
High Tide Line (HTL) = 2.01

SYMBOL LEGEND

Graphic Scale — 1" = 30'

Job No. 7031 8	Sheet No. Land-2	Sheet 10 of 13

SOMERS POINT NEW JERSEY

City of Somers Point
Atlantic County, New Jersey

Resiliency Project

Landscaping Plan

MOTT ASSOCIATES, LLC
3122 Fire Road
Egg Harbor Township, New Jersey 08234
Phone: (609) 569-1551
Fax: (609) 569-1521
State Board of Professional Engineers & Land Surveyors
Certificate of Authorization No. GA 21602

James A. Mott
Professional Engineer & Land Surveyor
New Jersey License No. 29918

Date 5/1/17

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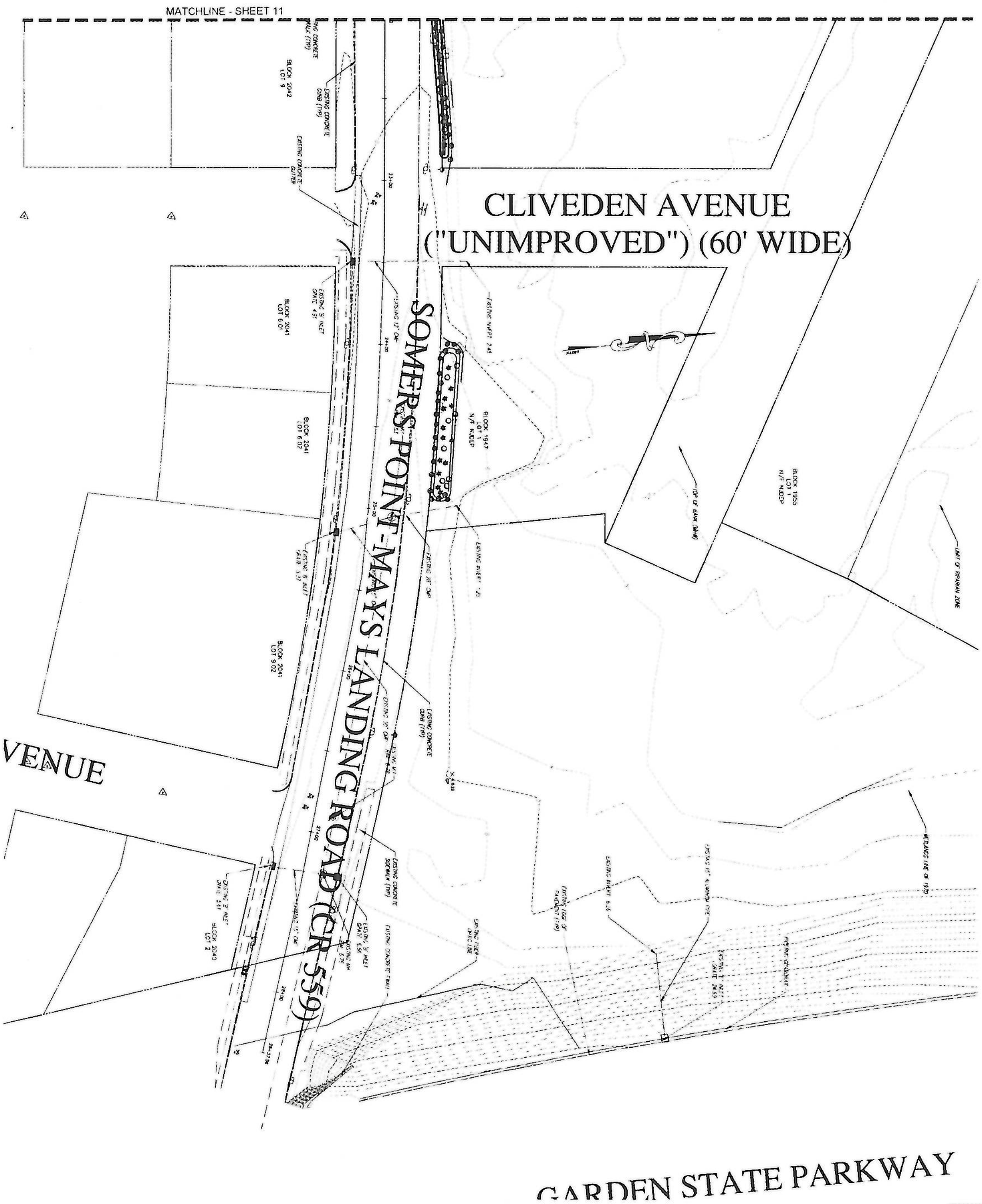
8/2/17	Revised per NJDEP Comments	GKS
7/7/17	Revised Embankment Location	GKS



LANDSCAPING LEGEND			
BOTANICAL NAME	COMMON NAME	KEY	QUANTITY
Spartina patens	Salt-meadow Cordgrass	SP	0 SF
Distichlis spicata	Spike Grass	DS	0 SF
Iva frutescens	High-tide Bush	IF	16
Juncus gerardii	Saltmarsh Rush	JG	13
Baccharis halimifolia	Eastern Baccharis	EB	21
Solidago sempervirens	Seaside Goldenrod	SS	14

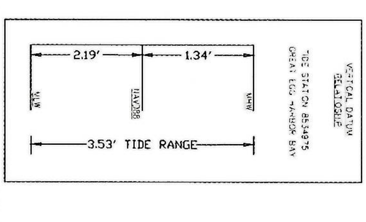


ILLUSTRATION NOT TO SCALE

Tide Station 8534975

All elevations are in NAVD 88

Mean Low Water (MLW) = -2.19
Mean High Water (MHW) = 1.34
Spring High Tide Line (SHTL) = 2.05
High Tide Line (HTL) = 2.80

SYMBOL LEGEND

Graphic Scale - 1"=30'

City of Somers Point
Atlantic County, New Jersey

Resiliency Project

Landscaping Plan

Job No. 7031.8 | Sheet Land-3 | 11 of 13

MOTT ASSOCIATES, LLC
3122 Fire Road
Egg Harbor Township, New Jersey 08234
Phone (609) 569-1551
Fax (609) 569-1521
State Board of Professional Engineers & Land Surveyors Certificate of Authorization No. GA 278020

James A. Mott
Professional Engineer & Land Surveyor
New Jersey License No. 29918

Date 5/1/17

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GKS	GKS	JAM	JAM	5/1/17

Date	Revisions	By
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8/2/17	Revised per NJDEP Comments	GKS
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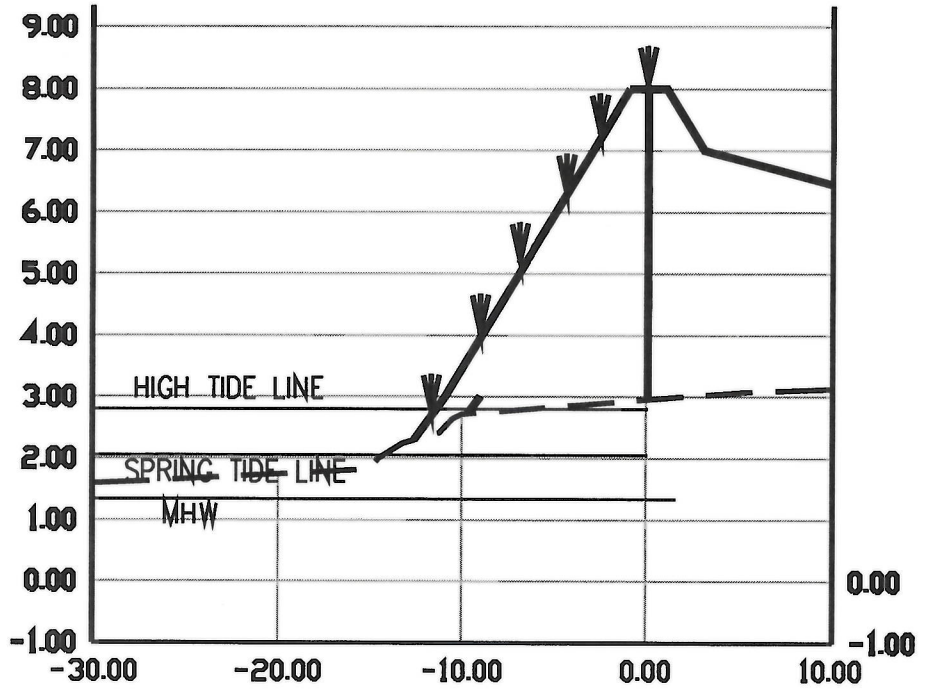
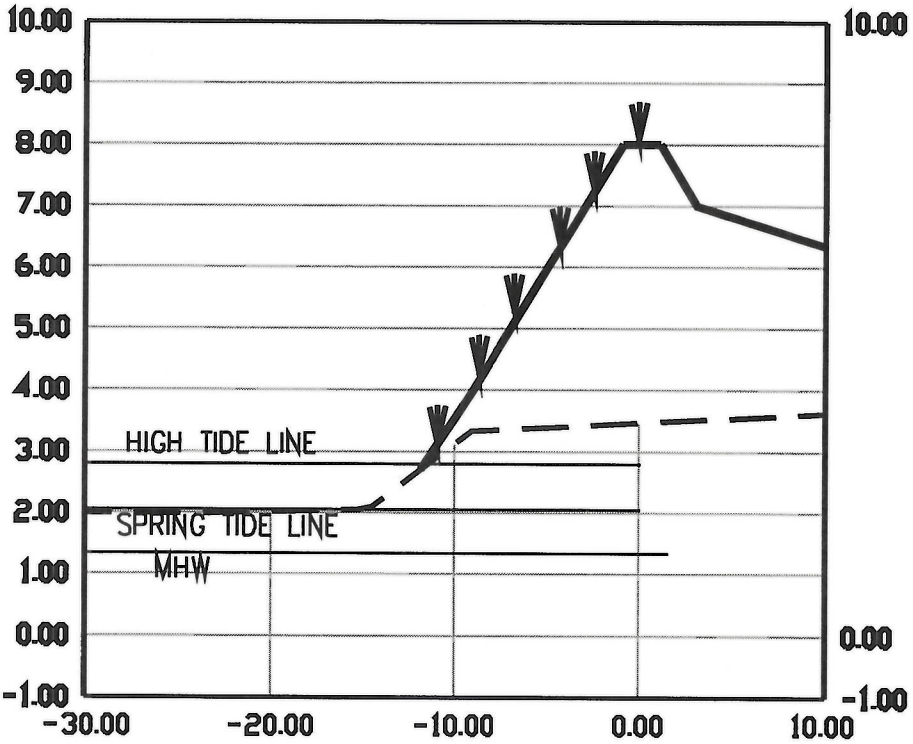


Cross Section A-A

Scale: 1" = 20'
Scale: 1" = 6' (V)



Cross Section B-B

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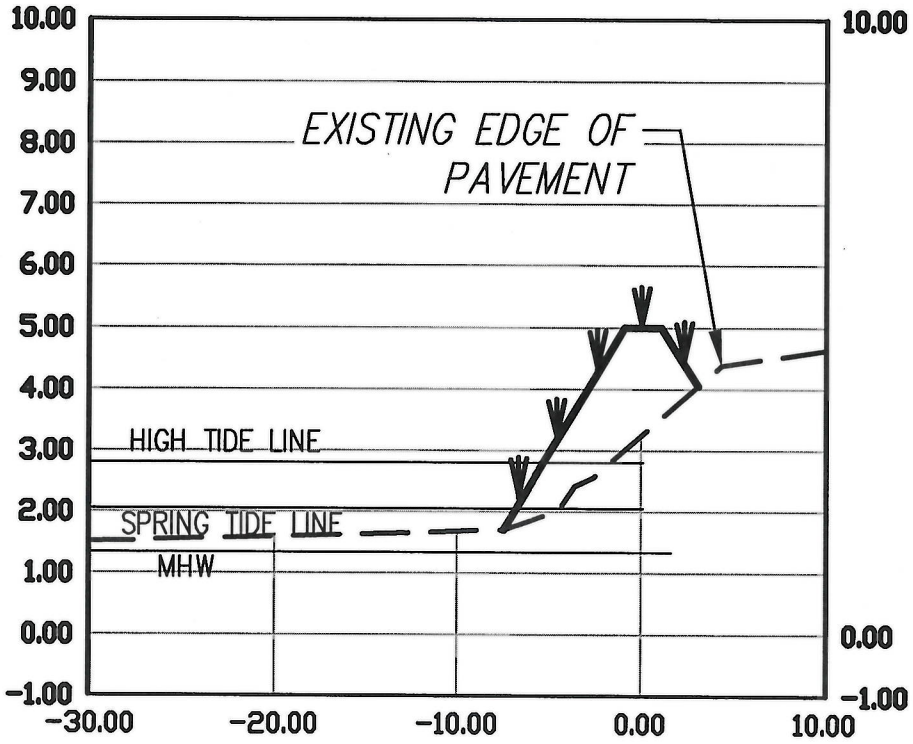
Scale: 1" = 6' (V)

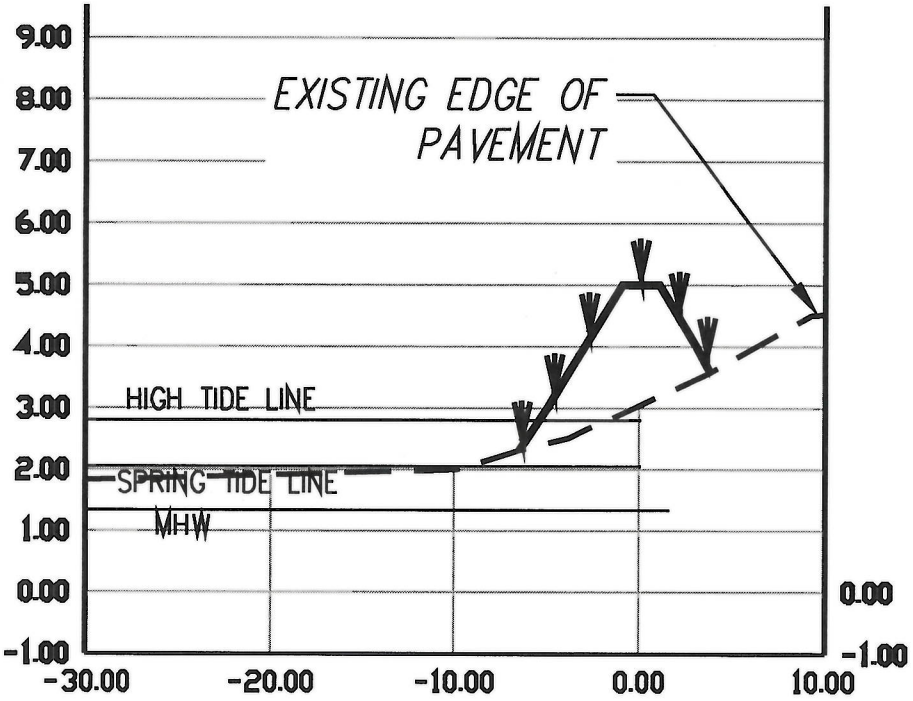


Cross Section C-C

Scale: 1" = 20'
Scale: 1" = 6' (V)

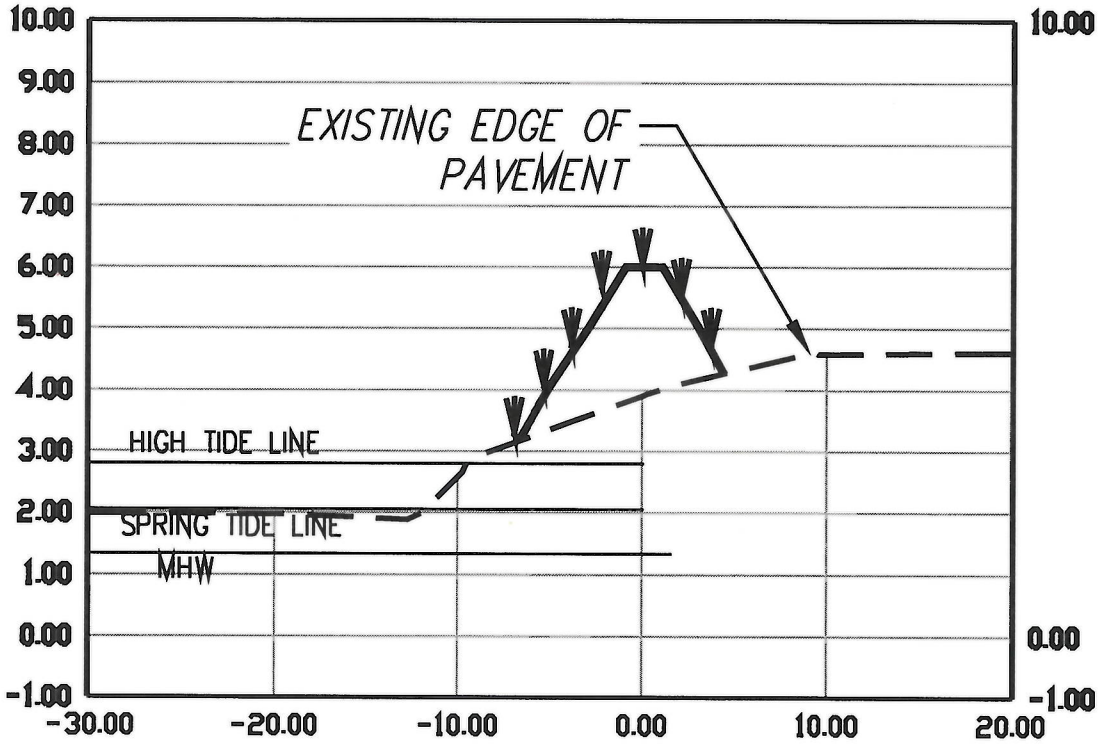
VERTICAL DATUM
RELATIOSHIP

TIDE STATION 8534975
GREAT EGG HARBOR BAY



Cross Section D-D

Scale: 1" = 20'
Scale: 1" = 6' (V)



Cross Section E-E

Scale: 1" = 20'
Scale: 1" = 6' (V)

Appendix D

Statement of Qualifications

Kristin Wildman
Sr. Environmental Consultant/Project Manager
kwildman@denviro.com

190 North Main Street
Manahawkin, NJ 08050
609-488-2857

Education:

B.S. Environmental Science
Concentration: Atmospheric Science
University of Delaware – 2002

Continuing Education:

Rutgers University
Methodology for Delineating Wetland, Hydric Soils & Wetland Vegetation Identification

The Role of the Environmental Consultant in Litigation

NJDEP Coastal Project Review

NJDEP Flood Hazard Area Control Act Rules

Environmental Audits & Site Assessments

Environmental Data Resources
Vapor Intrusion Risk & Due Diligence Challenges in the Real World

MAPPS Training Workshop
Hydric Soils

Professional Affiliations:

The Society of Wetland Scientists
- Member

Environmental Assessment Association
-Certified Environmental Inspector
2007 – present

Career Positions:

The Lomax Consulting Group, LLC
Cape May Court House, NJ-
Environmental Analyst 2004-2007
Environmental Consultant 2007-2010
Senior Consultant / Director of Technical Services 2010-2016

Fields of Competence:

Kristin Wildman has over 13 years of experience in the fields of land use regulatory compliance, wetland science, soil science, biology and ecology. She conducts various environmental site assessments, development feasibility studies, wetland delineations, rare species habitat evaluations and population surveys. She has extensive experience in managing a variety of projects from the initial field study stage through various regulatory application and approval processes, including extensive coordination with regulatory personnel. Mrs. Wildman has a respected professional relationship with various municipal and county agencies, NJDEP, USFWS and USACOE personnel.

Professional Experience:

Mrs. Wildman is a senior environmental consultant and project manager with the firm of DuBois Environmental Consultants. She manages all aspects of a project and coordinates specifically with a variety of clients to organize projects and proposals. Mrs. Wildman manages each individual project to ensure all appropriate and applicable regulations and tasks are implemented to facilitate successful completion/approval of the project.

Mrs. Wildman is responsible for conducting development feasibilities, wetland delineations, natural resource inventories, threatened/endangered species habitat assessments and directed surveys, and monitoring activities. Mrs. Wildman has experience with the survey and sampling protocols required under the jurisdiction of the USFWS, NJDEP, and Pinelands Commission for threatened and endangered species surveys. This survey work includes experience in various snake species drift fence trapping, numerous raptor, beach nesting birds and woodpecker nest investigations and breeding vocalization broadcast surveys, and amphibian monitoring and call detection/playback surveys. Mrs. Wildman has received numerous scientific collection permits from regulatory agencies as the sub-permittee.

Mrs. Wildman conducts vegetation inventories within a variety of biotic communities throughout New Jersey. These have included species specific surveys for numerous target plants considered rare or State and/or Federally listed. Mrs. Wildman has conducted numerous botanical investigations for rare plant species within the jurisdiction of the Pinelands Commission and NJDEP. Specifically, these directed evaluations have included surveys for the Federally listed swamp pink, sea beach amaranth, and Pine Barrens gentian, results of which have been accepted by all regulatory state agencies and the USFWS.

Mrs. Wildman is responsible for performing wetland delineations under the jurisdiction of multiple agencies, which are conducted pursuant to the interagency evaluation procedures. This includes expertise in analyzing the vegetation and technical indicators of hydrology and soils. She authors Freshwater Wetland Delineation Reports and prepares Freshwater Wetland Letter of Interpretation applications for submittal to the NJDEP for verification of the delineated wetland limits.

Mrs. Wildman coordinates directly with professional engineers, attorneys, clients, and regulatory agencies to evaluate compliance and design of projects pursuant to various environmental regulations, inclusive of the Freshwater Wetlands Protection Act Rules, Flood Hazard Area Control Act Rules, and coastal/waterfront development

DuBois Environmental Consultants, LLC Barnegat, NJ – Sr. Environmental Scientist / Project Manager 2017 – Present	regulations. Based on these permit analyses and project designs, she prepares the applicable permit applications pursuant to the NJDEP and USACOE regulations. Mrs. Wildman has prepared lectures and presented to numerous local and state agencies. These presentations include *Amphibian/Reptiles of the New Jersey Coastal Plains* to local schools, *New Jersey Department of Environmental Protection Division of Land Use Regulation Regulatory Reform* to the New Jersey Department of State Red Tape Review Commission and *Environmental Constraints at the Cape May and Millville Airports* to the Delaware River & Bay Authority. Mrs. Wildman has also conducted numerous volunteer survey efforts in coordination with the USFWS. These survey efforts include federally directed amphibian / reptile surveys and swamp pink population surveys. **Representative Projects of Relevance:** *Atlantic Capes, Lund's Fisheries and Cold Spring Fish & Supply Co. Ports Rehabilitation* Ecological and environmental work was completed to assist commercial fisheries clients in conducting environmental constraints evaluations and permit analyses for improvements to their commercial facilities. Mrs. Wildman works directly with the engineers in assisting with design of the project to ensure compliance of proposed improvements pursuant to State waterfront development, CAFRA, freshwater wetlands, and flood hazard regulations. Mrs. Wildman also coordinates with the NJDEP and USACOE with regard to permit requirements and to ensure no adverse impacts to documented state and federal threatened and endangered species habitat. Mrs. Wildman prepared all necessary permit applications and ensured continued cooperative coordination with the regulatory agencies to ensure receipt of the applicable permit approvals for the port projects. *Cape May Airport Improvement Projects* Coordination with the Delaware River & Bay Authority and project engineer to conduct the necessary field investigations and prepare full permit applications for various airport improvement and development projects. This has included wetland delineations, vegetation and wildlife inventories, and preparation and submission of state wetland and flood hazard permit and waiver applications. Technical support and report preparation was also provided for NEPA Categorical Exclusions and Environmental Assessments. *United States Coast Guard Recapitalization Projects* Coordination with the USCG and project engineer to conduct the necessary field investigations and prepare full permit applications for various improvement and development projects at USCG Station Manasquan, Station Atlantic City and TRACEN Cape May. This has included wetland delineations, vegetation and wildlife inventories, and preparation and submission of state consistency determinations and USACOE permit applications. Mrs. Wildman also provided oversight of extensive monitoring of sensitive habitats during construction required as part of NEPA Environmental Assessments for construction at the USCG Station Manasquan and Station Atlantic City facilities.

Bryon DuBois
Principal Senior Biologist
bdubois@denviro.com

190 North Main Street
Manahawkin, NJ 08050
609-488-2857

Education:

B.S. Biology & Ecology,
West Chester University, 1993

Professional Affiliations:

NJ Department of Environmental Protection Wetland Mitigation Council 2003 – 2013; 2016 - Present

New Jersey Builders Association 1999 – Present

Shore Builders Association 2001 – 2013

Builders League of South Jersey 2013 - Present

Member: Society of Wetland Scientists 1997 – Present

Member: The Ecological Society of America 1998 – Present

Member: New Jersey Division of Fish, Game and Wildlife Conservation Corps. 2000 – Present

Member: Pine Beach Environmental Commission 1995 – 2003

Association of N.J. Environmental Commission (ANJEC) 1995 – 2010

N.J. Concrete & Aggregate Society 2003 – 2013

Southern Ocean County Chamber of Commerce 2014 - Present

Fields of Competence:

Mr. Bryon DuBois has over 23 years' experience in the fields of regulatory compliance, ecology, biology, wetland science, wildlife management, and hydrology and habitat restoration. He has managed numerous large scale projects through the approval process in New Jersey, Pennsylvania, Maryland and Delaware. Mr. DuBois is highly respected by the regulatory agencies in N.J. and surrounding states. He has made positive contributions to policies effecting protected species (both state and federal), wetland mitigation, regulation and coastal zone policies through NJDEP, PADEP, MDDNR, DEDNR and ACOE. These contributions have also been through invited participation and professional guidance provided in regulatory agency stakeholder meetings.

Professional Experience:

In 2000 Mr. Bryon DuBois created an environmental consulting firm to focus on more objective ecological and environmental issues while focusing primarily on the regulated community. Through hard work and an extensive background as an outdoorsman, Mr. DuBois has been recognized as a leader in his field. Mr. DuBois has applied logical and objective solutions to some of the most difficult environmental projects and has met a balance between environmentalists and developers alike. Mr. DuBois operates the firm and ensures successful completion of projects through management and coordination of numerous employees. Mr. DuBois operates the firm to promote client and regulatory agency response and coordination to aid in generating a project or product that is both environmentally sound and in the best interest of the client.

Mr. DuBois has been requested to present topics related to environmental regulations at the Atlantic City Builders Convention, the Eastern Region Airports Conference in Hershey, Pennsylvania, the U.S. Fish and Wildlife Bog Turtle Convention, the N.J. Pinelands Commission, the Louisiana Fish and Game and dozens of planning boards in towns across N.J. and P.A. His diverse experience has made him a respectable candidate to speak publicly on projects that require many different issues from ecology to water quality.

Mr. DuBois began designing and managing the construction of wetland mitigation projects tailored to a specific habitat type or land use. In many instances the projects were approved and exceeded the standard requirements without increasing cost for the client. These mitigation projects helped Mr. DuBois become nominated to the State of New Jersey's Wetland Mitigation Council in 2003 by the Governor of New Jersey. Since that time Mr. DuBois has reviewed and received approval for numerous mitigation related projects and banks in New Jersey, Pennsylvania and Maryland.

From 2003 to the present-day Mr. DuBois has successfully managed, designed and received approval for projects ranging from airports to industrial centers, wastewater management facilities and large commercial areas along with the residential component. This has involved performing numerous long term studies on several influential species such as Bog Turtles, Pine Snakes, and Indiana Bats along with assessments of habitat and creation of mitigation measures. Mr. DuBois has held over 300 scientific collecting permits for surveys performed within the Mid-Atlantic States, many of which involve a telemetry component.

Mr. DuBois has experience coordinating with the New Jersey Department of Transportation (NJDOT) on roadway improvement projects. While working on these projects, the NJDOT Procedures Manual was utilized. Mr. DuBois also has extensive experience coordinating with various utility companies to provide ecological survey and monitoring services necessary to support utility line improvement and upgrade projects, which also involves regulatory agency coordination through implementation of both Pennsylvania Fish and Boat Commission and New Jersey Department of Environmental Protection standards

The projects of relevance presented below have been successfully completed through the management and coordination of Mr. DuBois with the client and regulatory agencies.

Bryon DuBois
Principal Senior Biologist
bdubois@denviro.com

190 North Main Street
Manahawkin, NJ 08050
609-488-2857

Certifications:

Professional Wetland Scientist
Society of Wetland Scientist

Certified Sr. Ecologist, The Ecological Society of America

Recognized Qualified Bog Turtle Surveyor – N.J., N.Y., P.A., D.E., M.D.

Recognized Qualified Indiana and Northern Long Eared Bat Surveyor – N.J., N.Y., P.A.

Certified Subsurface Evaluator NJDEP# 0001940

Recognized Qualified Delmarva Fox Squirrel Surveyor – M.D., D.E.

Pennsylvania Qualified Herpetologist for Various Species

Projects of Relevance:

NEW JERSEY:

- *NJ DOT Permitting and Threatened and Endangered Species*
  - Route 206 – Taylor, Wiseman, Taylor and NJDOT, Atlantic County, NJ
  - Route 46 - Taylor, Wiseman & Taylor and NJDOT, Warren County, NJ
- *Ecological Monitoring, Threatened/Endangered Species Studies & Wetlands Assessments*
  - A.C. Electric Co. South Jersey Multiple Transmission Line Upgrades
    - BL England Transmission Line Upgrade, Atlantic, Burlington & Salem Counties
    - Cove Road Transmission Line Upgrade, Cape May County
    - Corson Middle-Lake Transmission Line Upgrades, Cape May County
    - Oyster-Creek Cardiff Transmission Line Wetland Mitigation, Ocean County
- *Threatened/Endangered Species Studies & Permitting- Pinelands*
  - NJNG Southern Reliability Line – Townships of Manchester, Jackson, Lakehurst, Plumsted, Chesterfield, and North Hanover, Ocean and Burlington Counties, NJ
  - Clayton Companies - Shulton Property, Glidden Sand Mine & Woodmansie Sand Mine – Ocean and Burlington Counties, NJ
  - Cutt Brothers Farm Service Restoration project- Burlington County
- *Federal Involvement/Federal Oversight*
  - Swamp Pink Monitoring at Various Sites – Atlantic, Warren Counties, NJ
  - Woodbine Proposed Sand Mine; Bat Studies – Boro of Woodbine, Cape May Co, NJ
  - Bear Creek Construction Monitoring- Burlington County, NJ.
- *Wetland Mitigation Approvals/Monitoring*
  - GEHR Mitigation Bank - Evergreen Environmental, Gloucester County, NJ
  - Marsh Bog Brook Mitigation Bank - Evergreen Environmental
  - Bell Labs –Riparian Mitigation - Toll Brothers, Inc. Monmouth County, NJ
  - Bamm Hollow – Wetland Mitigation - Toll Brothers, Inc., Monmouth County, NJ

PENNSYLVANIA:

- *Threatened/Endangered Species Studies*
  - Westtown Lake Turtle Relocation, Westtown School, Chester County, PA
  - Haverford College Turtle Relocation, Delaware County, PA
- *Threatened/Endangered Species Studies & ACOE Permitting*
  - Scudder Falls Bridge Replacement, Michael Baker Inc., Yardley, PA
- *Permitting and Jurisdictional Determinations*
  - Brookdale – 1200 Acre wetland delineation, SK Design Group, Monroe County PA
  - Shartlesville – 520-acre wetland delineation in Burkes County, PA
  - 2016 PPL Reliability Project – Surveyed approximately 100 Miles of PPL Right of way throughout Lancaster, Lebanon and Berks County.

DELAWARE:

- *Threatened/Endangered Species Studies, Permitting & Wetlands*
  - DPL - Church to Wye Mills Transmission Line Upgrade, Kent County, DE
  - DPL - MD Transmission Line Upgrades from 2009-2014 Kent County to Sussex County DE

MARYLAND:

- *Threatened/Endangered Species Studies, Permitting & Wetlands*
  - Pepco – Bald Eagle Hazing and Nest Construction, Brandywine MD.
  - Kent County Wetland Mitigation Project, Delineation and Assessment