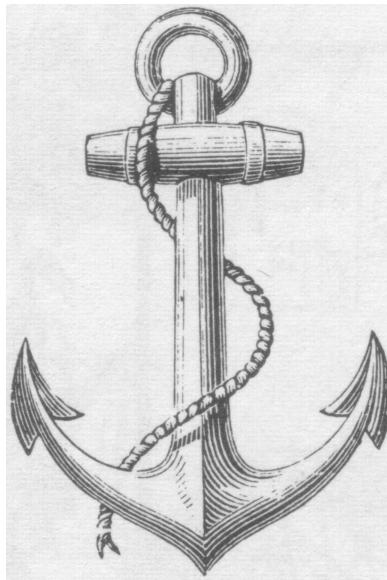


PEASE DEVELOPMENT AUTHORITY

DIVISION OF PORTS & HARBORS

ANNUAL DREDGE REPORT

2023



555 Market Street
Portsmouth, New Hampshire 03801
Phone #603 436 8500
Fax #603 436 2780

TABLE OF CONTENTS

Cover Page
Table of Contents----- Page 2
Figure 1 – New Hampshire Coastal Zone----- Page 3
Portsmouth Harbor and Piscataqua River----- Page 4
Fort Point----- Page 6
Little Harbor----- Page 7
Back Channel/Sagamore Creek----- Page 8
Cocheco River----- Page 9
Oyster River----- Page 10
Hampton/Seabrook Harbor----- Page 11
Rye Harbor----- Page 14
Isles of Shoals----- Page 15
Other USACE projects----- Page 16
Dredged Material Placement Sites----- Page 17
Summary----- Page 19

Figure 1.

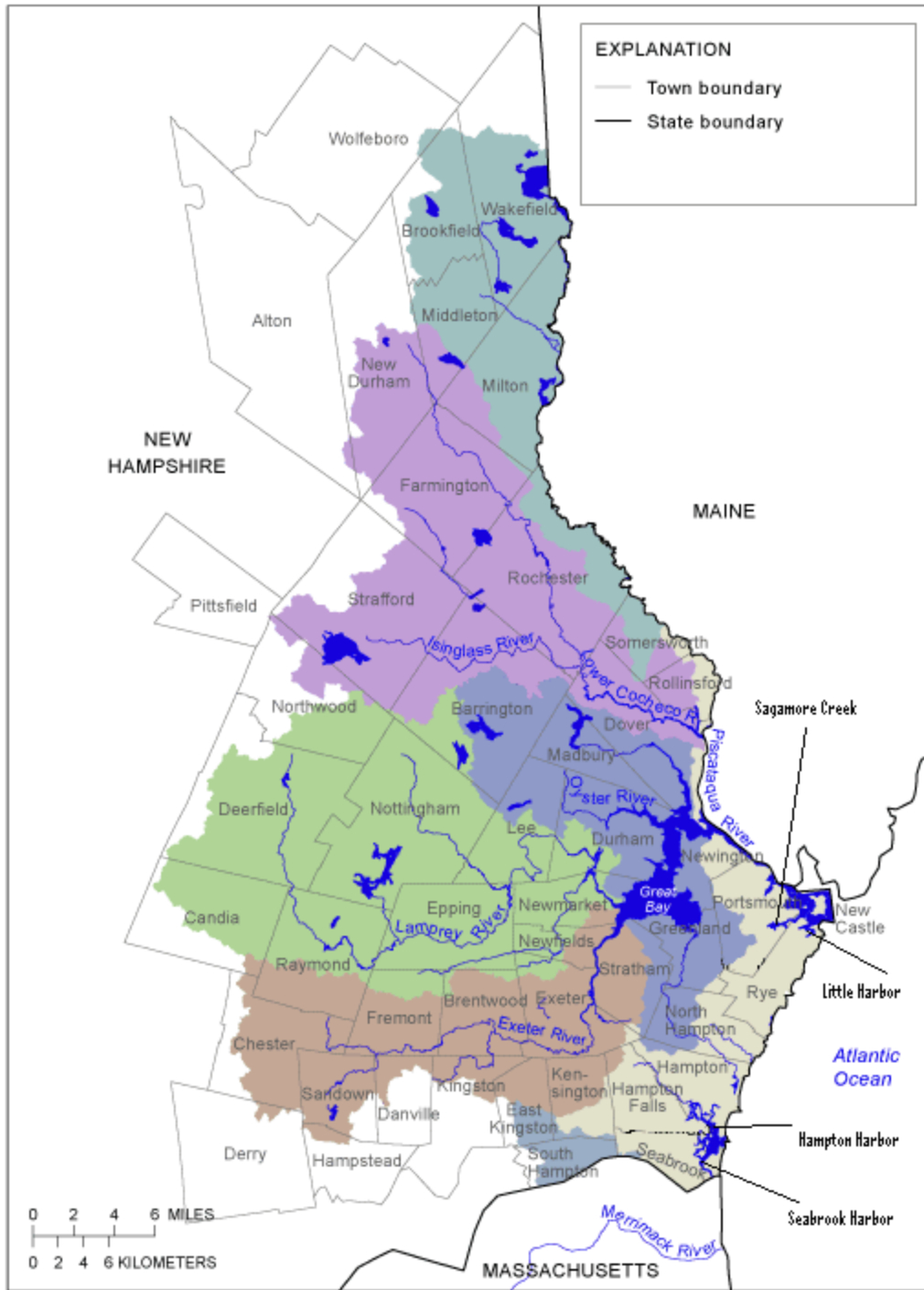


Figure 1 – Overview – New Hampshire Coastal Zone

PORTSMOUTH HARBOR AND PISCATAQUA RIVER

The Piscataqua River Federal Channel dates back to 1879 and the currently authorized dimensions were completed in 1966 by the U.S. Army Corps of Engineers (USACE), with widening of the lower river completed in 1992. Its entire length of 6.2 nautical miles has an authorized depth of 35 feet and is 400 feet wide, expanding to 700 feet at sharp turning points. The channel begins at Clarks Island in Portsmouth Harbor, across the channel from New Castle, and terminates at the turning basin in Newington, at navigation buoys 12 and 13. Two turning basins were included in the 1966 Federal project: one 800 feet wide opposite the Sprague River Road Terminal, and the second 950 feet wide just north of the Schiller Station power plant.

A third turning basin 1,000 feet wide was added in 1989 opposite the Division of Ports and Harbors (DPH) Market Street Marine Terminal and the Granite State Mineral Terminal between the Memorial Bridge and the Sarah Long Bridge.

The channel opposite Henderson Point at navigation buoy 9, off Goat Island was widened to 550 feet in 1992 when the USACE removed 51,139 cubic yards to improve the water depth and expand the width of the channel at this hazardous turn.

Improvement Project: Until recently the Portsmouth Pilots were turning 765 foot ships in the 800 foot upper turning basin. The width of this basin posed significant safety concerns and limited the industrial waterfront. After many years of effort the USACE was able to expand the upper turning basin to 1,200 feet. The Division received notice that the project received funding for the federal portion of the project in March of 2021, The winning bid in October 2021 was \$24,948,900 which raised the State's initial burden to \$6,237,225 and the post construction burden to \$2,537,300. \$6,033,143 had already been paid to the USACE from the 2016 appropriation. An additional \$480,000 (\$138,225 plus \$341,000, which is 25% of the labor cost) was paid to allow the dredge contract to be signed and the project to proceed. The dredge project was completed in April of 2022, although there is one high spot that the ACOE hopes to address.

The project removed about 542,000 cubic yards of predominantly clean, sandy material plus about 15,000 cubic yards of ledge, considerably less ledge than was originally anticipated. Because there was strong local opposition to placing the clean, sandy dredge material offshore of the local New Hampshire and nearby Maine beaches, the material was placed at the newly approved Isles of Shoals North disposal site (IOSNDS). The IOSNDS is located in federal waters northeast of the Isles of Shoals and will serve the offshore dredged material disposal needs of New Hampshire, southern Maine, and northern Massachusetts. The USACE had also identified municipalities in Massachusetts to use the sandy material for beach nourishment.

Maintenance Projects: Simplex Reach, located north of the Newington Station power plant, has historically required dredging approximately every 7 years due to reoccurring shoaling.

Surveys conducted by the USACE indicated that shoaling had again occurred in the Simplex Reach. The shoaling was entirely in Maine state waters. As a result, PDA-DPH was not required to obtain a Wetlands Permit nor a 401 Water Quality Certification from the New Hampshire Department of Environmental Services. During the 2012/2013 dredge window the USACE performed maintenance dredging and advanced maintenance dredging of 14,323 cubic yards of clean sand and gravel from the channel in the Simplex Reach. Advanced maintenance dredging involves dredging beyond the authorized channel dimensions in an effort to reduce the frequency of dredging, thereby decreasing potential environmental impacts and reducing the overall cost of maintaining the project. The USACE performed advanced maintenance dredging only in those areas within the channel that had shoaled above -35 feet deep. The dredged material was placed in a previously used, in-river disposal area located approximately 3,000 feet downriver of the dredging area in a section of the river where depths exceed 50 feet. A recent survey conducted by the USACE indicates that shoaling is again occurring at two locations within the river. The USACE estimates that approximately 40,000 cubic yards of sand needs to be dredged and is proposing to place the dredged material in the previously used in-river disposal site. The USACE anticipates that dredging will occur during the dredge window this winter.

Previous disposal sites used for dredged material disposal from maintenance dredging of the Simplex Shoal have been both outside of and within the river, with no discernible differences between the two on subsequent dredge quantities or interval between dredging events. The National Marine Fisheries Service (NMFS), US Fish and Wildlife Service (USFWS), and New Hampshire Fish & Game (NHFG) have taken the position that in-river disposal is acceptable for the project if certain conditions are met, such as no dredging in November. The NHFG encouraged advance maintenance dredging to be incorporated into future maintenance dredging events in the river as part of a programmatic approach to maintain the channel in the Simplex Reach. Because this approach appears to reduce the frequency that maintenance dredging is needed, it thereby reduces potential environmental impacts. NMFS and USFWS also encouraged the USACE to seek out alternative disposal sites for future projects. It is important to note that this would require additional funding as the USACE will perform the dredging in the most economical and expeditious manner possible (which they believe to be in-river disposal), and anything done beyond that is at the expense of the sponsor.

FORT POINT

Fort Point is in the Piscataqua River adjacent to Fort Constitution and the U.S. Coast Guard Station in New Castle, NH. The area has never been dredged. In the past safety concerns have been expressed by the Portsmouth Pilots and many ships' captains.

In 1995 these concerns were passed on to the USACE by the New Hampshire Port Authority and a complete Navigational Improvement Study and Reconnaissance Report was requested. In May 1996 the USACE responded that the area was outside the Federal Project, so could not be dredged under their maintenance program, and funding was not available for the initiation of new investigations at that time. Recent changes in the USACE regulations may allow for an investigation. The State would need to request that Corps begin a study of this area if further improvements are desired.

In 2004 the US Coast Guard received approval from the Department of Environmental Services (DES) Wetlands Bureau to dredge approximately 11,500 cubic yards of accumulated sediment from the area of their boathouse and pier in order to improve navigation for their vessels. The project was completed in the spring of 2007. There was no expenditure by the State for this project.

LITTLE HARBOR

Little Harbor is situated on the southern side of Great Island (New Castle) and the northern side of Rye near Odiorne Point State Park. The harbor is protected from the Atlantic Ocean by a 550 foot long north breakwater and a 900 foot long south breakwater. The 3,000-foot long entrance channel is 100 feet wide with a 40 acre anchorage area. The original authorized Federal Navigation Project as constructed by the USACE between 1887 and 1903 called for the channel and the entire anchorage at a 12-foot depth. The harbor extends from the breakwaters to the Route 1B Bridge near the Wentworth by the Sea Hotel.

Little Harbor is designated by the Federal government as a “Harbor of Refuge” and is the responsibility of the USACE to maintain. Since 1903 there have been 4 dredging projects. In 1985 the Wentworth By The Sea Corporation removed 160,610 cubic yards for the construction of their marina. In 1987 an additional 16,000 cubic yards were removed from Witch Creek, which empties into Little Harbor on the southwestern side. In 1994 the USACE and the NH Port Authority were involved in an emergency dredging project to provide access to the public landing in front of Wentworth Marina.

During December 2000 to March 2001 there were 40,500 cubic yards of material dredged by the USACE from the Little Harbor Federal Navigation Project and deposited offshore near Wallis Sands State Park in order to provide a source of beach nourishment. The project was intended to maintain the Federal channel depth at a minimum of 10 feet and a portion of the anchorage area at 6 feet to 8 feet. The cost of the project to the USACE was \$775,000.00. The Port Authority expended \$40,000.00 for the removal, storage and replacement of moorings.

The 2000/2001 project had an environmental impact upon 7.3 acres of eelgrass in the harbor. Rummel, Klepper and Kahl (RK&K) was contracted by the USACE to develop a mitigation plan for the eelgrass and to monitor the results of that plan. The University of New Hampshire worked as a subcontractor for RK&K during the eelgrass planting and monitoring efforts. This monitoring process was completed in September 2002.

This office has consistently advocated for the need to maintain Little Harbor at the original project depth of 12 feet throughout. While the Port Authority did agree to the reduced dredge area and depth in 2000/2001 the Division intends to request increased depth when the need next arises for maintenance. The USACE recently conducted an eelgrass study in conjunction with the preparation of an Environmental Assessment for future maintenance dredge work. A USACE survey conducted in September 2013 confirmed that shoaling is present in Little Harbor, but dredging was not warranted at that time.

BACK CHANNEL AND SAGAMORE CREEK

The back channel is approximately 3 to 5 feet deep, 75 to 100 feet wide and is 2 nautical miles long. It extends from the Route 1B bridge on the westerly end of Little Harbor (near the Wentworth by the Sea Hotel) to the intersection with Sagamore Creek near Blunts Island, continues northwesterly past Leaches Island and terminates at the Piscataqua River by the Route 1B bridge between Shapleigh Island and Goat Island.

Sagamore Creek branches off from the Back Channel near Blunts Island and runs southwesterly to the Sagamore Avenue Bridge on Route 1A in Portsmouth. The USACE considers both of these channels to be included in the Portsmouth Harbor and Piscataqua River Federal Navigation Project (Portsmouth Back Channels segment).

In 1964 and 1968 Mike's Marina dredged approximately 400 cubic yards from the area of the Marina. In 1971 the USACE removed 30,000 cubic yards from the creek.

Condition surveys conducted by the USACE since 2002 have illustrated shoaling in several areas of the creek. In 2017, the USACE had the funding for a limited dredge and removed the large shoal in the area of the bifurcation buoy "SL". The contractor removed approximately 4,000 cubic yards from an area of 37,000 square feet. The clean material was placed offshore near Wallis Sands State Park as beach nourishment.

The New Hampshire Department of Transportation is currently in the design phase of a new bridge on Route 1B near the Wentworth by the Sea Hotel to replace an existing bascule bridge. Under consideration are two designs, one of which would be fixed and unable to open. Because the existing Route 1B bascule bridge is too narrow to allow passage of dredging equipment, all dredging equipment accessing the Federal channels is required to pass under the fixed span Route 1B bridge (NH-DOT bridge identification - "New Castle 031/142") further to the north of the Back Channel area. Both the fixed span or bascule bridge alternatives being considered by NH DOT would constitute an improvement as far as impacts to dredging and the USACE is in support of either alternative, although the bascule bridge alternative provides the greatest improvement from a dredging perspective. The project requires a Bridge Construction/Modification Permit from the Coast Guard. This office continues to advocate for a bascule bridge.

COCHECO RIVER

The Cocheco River is approximately 2.65 nautical miles long and runs from the intersection of the Piscataqua River and the Salmon Falls River to the Washington Street Bridge in downtown Dover. The last dredge of the Cocheco was in 1895. The authorized channel is 60 to 75 feet wide and 7 feet deep. The City of Dover has been revitalizing the waterfront area of their downtown and as part of the project was very interested in having the Cocheco River dredged. The river had depths as shallow as 4.7 to 0.3 feet at the northern end of the channel. High levels of contamination were found in the dredge materials. The City of Dover built a containment system at the site of their old landfill and the material was trucked to that location. In accordance with state statute, this office is identified in the Wetlands Bureau permit as the applicant for the project, however there has been no expenditure by the State.

The City of Dover was able to enlist the aid of the Congressional Delegation and obtain funding for the Cocheco dredge which the USACE began during the 2004/2005 dredge window. Because of the amount of ledge found during the project the USACE was unable to complete the dredge in the 2004/2005 dredge season. The USACE requested that the controlling depth be reduced to 6 feet for the purpose of this project and this office agreed, which allowed the project to proceed. Additional funding was obtained for the 2006/2007 dredge season and additional work was done. However, for a variety of reasons, including ice conditions and continued problems with ledge, the project was not completed. Funding had not been available to complete the project. The USACE has reimbursed the City of Dover for placing the dredge spoils into the containment area which left them without sufficient funds to continue dredging. In 2009 the USACE and the City met with staff members of the NH Congressional Delegation to discuss the future of the project. It was decided at that meeting to keep the disposal facility open one more season in the hopes that the Congressional Delegation could appropriate funds for the Federal Government's Fiscal Year 2010. The joint House/Senate Environment & Water Conference Report passed on October 15, 2009 included an additional \$2 million for the Cocheco River project. The \$2 million, combined with the \$1.8 million that the USACE already had available for the project has enabled them to complete the dredging component of the project and to meet its financial obligations to the City of Dover for its use of the disposal facility. The third and final phase of the project was completed in December 2010.

OYSTER RIVER

The Oyster River runs from downtown Durham near Route 108 easterly into Little Bay. This is not a Federal navigation project and is the sole responsibility of the State to maintain.

There have been several requests from the University of New Hampshire and from residents along the Oyster River to dredge the channel. As a result a committee was formed and a study, funded through the Clean Water Act Section 319, was conducted. The cost was \$29,200 and was paid for through a grant issued by the Department of Environmental Services to the Town of Durham. The Oyster River Feasibility Study for Re-establishing a Navigation Channel dated November 30, 2004 recommended dredging the Oyster River navigation channel to a depth of 4 feet with an average width of 38 feet. The report indicates that this project would improve safe navigation and would also improve dilution of the treated wastewater from the Durham treatment system. In February 2006, at the request of the NH Dredge Management Task Force (DMTF), a representative from the Oyster River Task Group presented an overview of the project to the DMTF. A number of DMTF members, including the USACE, NMFS, NHFG and the DES Wetlands Bureau provided preliminary comments on the proposal. Funding is currently not available to proceed with this project.

HAMPTON/SEABROOK HARBOR

Hampton and Seabrook Harbors support a commercial fishing fleet, charter fishing and whale watch boats, as well as numerous recreational craft. DPH maintains a commercial fishing facility as well as a recreational facility complete with a public launch ramp. The Town of Seabrook provides a public pier and a launch ramp used by both commercial and recreational boats. Yankee Commercial Fisherman's Cooperative is located on a Seabrook town facility which was formerly owned by PSNH and was built during construction of Seabrook Station. Hampton/Seabrook Harbors are accessed from the seaward through a common entrance channel.

A 1965 Memorandum of Understanding between the State of New Hampshire and the USACE set the responsibility for maintenance of the harbors and the entrance channel until 2012. Prior to 2012 the USACE maintained the entrance channel from the Route 1A Bridge seaward and the seaward arms of the two stone jetties at the inlet. The entrance channel is approximately 0.7 miles long, 150 feet wide with a controlling depth of 8 feet. Prior to 2012 the State of New Hampshire was responsible for the approximately 22 acres of anchorage and access channels inside of the Route 1A Bridge.

In January 2012 the USACE, in cooperation with the Division, completed a Feasibility Study under its Section 107 small navigation improvement projects authority which determined that there was enough use of the harbors to economically justify that agency assuming responsibility for most of the inner harbor's dredged features. That project was approved by the USACE on March 5, 2012. Completion of the feasibility study cost \$220,000, with a State share of \$60,000. The "Plans and Specs" phase of the project was completed at a cost \$170,000 of which the State was responsible for \$20,000. The improvement project was constructed November 2012 to March 2013 in partnership with the Division and in conjunction with maintenance of the entrance channel. The total cost for the project was bid higher than anticipated at \$3,162,780. The State/Division was responsible for the portion of those costs for a depth of 6 feet, with the USACE and the State sharing the cost of all dredging below 6 feet (80% and 20% respectively). This applies to inner harbor areas allocated to commercial navigation use. A total of 167,947 CY of sand was dredged from the combined projects. 1,485 CY was removed in maintenance of the entrance channel. 3,464 CY was removed from the state recreational anchorage at the head of Hampton Harbor. 48,446 CY was removed from the inner harbor to a 6-foot depth, and 114,552 CY was removed from depths below 6 feet. Materials dredged from the Seabrook side of the harbor were placed on Seabrook Beach, while materials from the Hampton side were placed on the beach at Hampton Beach State Park.

The cost to the State/Division came to \$1,308,000, with an additional cost of approximately \$87,000 to remove and replace the moorings to allow for the work. There was another \$238,104.97 that the State paid the USACE, which is the additional 10% upon completion. The USACE has agreed to assume responsibility for future maintenance of the inner harbor commercial areas in a "freshly dredged" condition. Areas allocated to recreational use will

continue to be the responsibility of the State, but this change will save the State from having to bear much of the expense of dredging in the future.

The total volume of material dredged was 167,947 cubic yards of clean sand which was placed on Seabrook Beach, and on the beach at Hampton Beach State Park.

Recent surveys had shown that there was significant shoaling, particularly on the Seabrook side of the Harbor. This was of great concern to the commercial users as it makes it very difficult to transit the harbor. Because small ports and harbors, like Hampton/Seabrook Harbor, compete with other small ports and harbors nationwide for the same USACE funds, funding was difficult to obtain. DPH and the DES Coastal Program worked closely with the congressional delegation and funding for the urgently needed dredging and it was finally approved. The work was completed in 2019. The mooring removal and replacement and the State portion of the dredging was estimated at \$243,750 (\$118,750 Capital Appropriation and \$125,000 Division funds). The \$125,000 in Division funds were used for the additional dredging of the State Anchorage. Upon completion of the contract, USACE returned \$58,987.23 which was remaining from the dredging effort due to lower bids and less material needing to be removed at the time of the pre-construction survey. These funds were redirected to the Rye Harbor dredge for the removal and replacement of moorings. Approximately 175,000 cubic yards of sand was dredged from the federal navigation project, including approximately 140,000 cubic yards of material located in Seabrook and approximately 35,000 cubic yards of material located in Hampton. An additional $\pm 1,650$ cubic yards of sand was dredged from the state recreational anchorage in Hampton. The USACE's contractor used a hydraulic pipeline dredge and placing the dredged material along areas of Hampton Beach State Park, Seabrook Beach, and beneath the south abutment of the Route 1A Bridge. There is noticeable shoaling again and the Division has requested that the USACE conduct a survey.

The USACE had a contractor perform repairs to the seaward arm of the North Jetty at the inlet to address damages caused in part by Hurricane Sandy. The work was completed in October 2016. An undocumented vessel strike occurred soon after the repairs were completed in 2016/2017 and various winter storms caused new damage to the North Jetty. Funding was secured in late 2020 and USACE unsuccessfully went out to bid to have a contractor perform repairs around 2022. They went to bid again this year and the project is currently under construction.

Located on the south side of the entrance channel, seaward of the Route 1A Bridge is a structure known as the half tide jetty. The jetty is adjacent to the community of Sun Valley. The area landward of the half tide jetty is a dredge spoil disposal site that was also designed to act as shoreline stabilization. However, the tidal flow and porous condition of the half-tide jetty prevent the material from remaining behind the jetty. 1.7 million dollars was appropriated in 1998 to address the jetty and the erosion problems at Sun Valley. The USACE informed the State that before permits for any alterations of the Hampton/Seabrook tidal estuary system a hydrodynamic study must be completed. \$400,000 was appropriated in FY2000 to allow the State to contract with UNH to conduct

such a study and develop the hydrodynamic model. This hydro model was used in developing the “227 Project” referenced below.

River Street runs along the southern end of Seabrook Harbor. The Backwater River runs from Salisbury, Massachusetts and empties into Seabrook Harbor. The last portion of the Blackwater River has meandered for many years across the tidal clam flats called Middle Ground. Middle Ground abuts River Street. In recent years the Blackwater River had meandered very far to the southward and was undercutting the properties along River Street, creating the so-called “River Street cut”. Several emergency projects were accomplished with appropriations in 1998, 1999, and 2000 to attempt to stabilize the shoreline along River Street. Additionally, the material was being deposited in Seabrook and Hampton Harbors necessitating dredging on a nearly annual basis in order to keep the harbors open and useable. In 2004/2005 the USACE constructed a “Section 227 Project” which was an experimental project to attempt stabilization of the Blackwater River and Middle Ground as well as River Street by closing the River Street cut. Two double walls of vinyl sheet pile were constructed at each end of the cut. The Blackwater River was then dredged in an effort to remove the damming material which was then placed between the two double walls, filling the cut. Immediately upon completion of the 227 Project, Hampton and Seabrook Harbors were dredged using \$1,000,000.00 authorized by the Capital Budget Overview Committee for that purpose. 110,699 cubic yards of clean sand were removed and used on Hampton and Seabrook beaches as beach nourishment.

Recently the USACE has observed a loss of some of the material between the walls and has placed some of the dredge material there during the recent dredge process. While the walls are still intact and performing shore stabilization as designed, the Blackwater River has cut across the Middle Ground at the terminus of the walls, which has contributed to the shoaling described above. In order to address this situation the DPH has submitted a “Section 107 request” to the USACE, to initiate a study of methods to best prevent recurrence. The USACE District has approved the request, and the project is now ready to go into the design stage. In order to begin the USACE requires a hydrodynamic study, as they have deemed the previous UNH data to be dated and inadequate. The State portion of that study is currently estimated at \$516,105. The Division is looking for funding options to meet this challenge.

RYE HARBOR

Rye Harbor is a man-made harbor and most of it is an authorized Federal Navigation Project maintained by the USACE. It is bordered at the seaward limit by two breakwaters, one to the north and one to the south, each approximately 530 feet long and constructed in 1939. The Harbor is used extensively by local and transient recreational boaters, as well as commercial fishing and charter boats. The Federal Channel is 2,300 feet long, 100 feet wide and is 10 feet deep at the entrance of the harbor and 8 feet deep for the remainder. The anchorage area to the north is maintained at 6 feet and the anchorage area to the south is maintained at 8 feet. Rye Harbor does not require frequent dredging and has had very little done since its creation. Reports from the Rye Harbormaster, local fishermen, and recreational boaters indicated significant shoaling, particularly in the inner harbor at the outlet for the Aucomin Marsh. The USACE confirmed this in a bathymetric survey, conducted in September 2018. Based on the findings of the bathymetric survey and recent sediment sampling, the USACE identified approximately 60,000 cubic yards of sand and silty material to be dredged from numerous shoaled areas within the channel and anchorages. This includes approximately 50,000 cubic yards of material in the federal channel and anchorages, and approximately 8,000 cubic yards of material in the state anchorage. The work was performed by Prock Marine and the material was placed at the Isles of Shoals North Disposal Site. DPH received a Capital Budget request of \$637,500 to dredge the State maintained anchorage and to remove and replace the approximately 100 existing moorings. Unfortunately, after the Capital Budget was passed, DPH learned the USACE's estimated cost to dredge the state anchorage increased by approximately \$155,000 to an amount of \$585,000, leaving only \$52,500 to fund the removal and replacement of moorings. Another unexpected cost, due to a change in USACE permitting process, DPH learned that it was required to perform additional sediment sampling in the State maintained anchorage. Proposals were requested and received for the sediment sampling and DPH requested and received approval from the Capital Budget Overview Committee (CBOC) to expend up to \$131,075 from the Harbor Dredging and Pier Maintenance Fund for the sediment sampling, the final cost of the sampling was limited to \$20,121.60. In October of 2020, DPH also requested and received approval from the CBOC to use up to \$100,000 for the removal and replacement of the moorings and the transfer of \$23,990.00 of unexpended funds from the Hampton/Seabrook Dredge project appropriation. In April of 2021 the Division received a refund check in the amount of \$58,987.00 from the ACOE due to the Hampton project coming in under budget. The CBOC authorized use of those funds towards the Rye Harbor Dredge Project. The project began in November of 2020 and was completed by the end of March, 2021. 59,423 cubic yards of material were removed and placed in the Isles of Shoals North Disposal Site. In the end, only \$35,420.77 was expended from the HDPM Fund. The total cost of the project was \$755,898.00 and, due to the project coming in under budget, the Division received a refund check from the ACOE in the amount of \$251,142.62, which was authorized through Senate Bill 278 to be appropriated to fund the turning basin project due to the bid coming in higher than expected.

ISLES OF SHOALS HARBOR OF REFUGE

This harbor is located partly in New Hampshire and partly in Maine. The Federal Navigation Project for Isles of Shoals consists of three stone breakwaters enclosing the harbor of refuge from the north through southeast. The first connects Malaga and Smuttynose Islands. The second connects Smuttynose and Cedar Islands. These first two breakwaters are located entirely in the state of Maine. The third breakwater connects Cedar and Star Islands and is bisected by the state boundary. The USACE has received funds to repair and rehabilitate the three breakwaters and construction began in the spring of 2023 and is ongoing. The two states were required to secure any real estate easements needed by the USACE to facilitate access and construction. Breakwater repairs were last made by the USACE in 1974.

OTHER USACE NAVIGATION PROJECTS IN NEW HAMPSHIRE

There are four additional USACE Federal Navigation Projects in New Hampshire which have not been the subject of the work listed above for this past year. Dredging of the three coastal waterways has not been accomplished in more than a century. These projects are:

- Bellamy River, Dover: A 5-foot deep Federal channel provides access between Little Bay and the City of Dover. The channel has not been dredged since 1896, but is still used by small craft. The channel was last surveyed in 2019.
- Lamprey River, Newmarket: A 5-foot deep Federal channel provides access between Great Bay and the town of New Market. The channel was last maintained in 1903 and is still used by small craft. The channel was last surveyed in 2019.
- Exeter (Squamscot) River, Exeter, Newfields and Stratham: The Federal project provides a 6-foot deep channel up to the oxbow cut-off, and then a 5-foot channel to Exeter. The channel was last maintained in 1911 and is used by small craft, including several small marinas in Newfields and Exeter. The channel was last surveyed in 2009.
- Lake Winnepesaukee – Weirs Channel, Laconia: A 5-foot deep Federal channel provides access between Lake Winnepesaukee and Long or Paugus Lake. The waterway and lakes are regulated by the dam at Lakeport in Laconia and originally were part of a continuous waterway formed by a series of canals and improved rivers to facilitate navigation between Lake Winnepesaukee and the Merrimack River. The channel is heavily used today by small recreational craft. The channel was last maintained in 1950 with the dredged sand used to nourish Weirs Beach. The Federal channel was recently surveyed but the results have not yet been published. As directed by RSA 12-G:45 the Division of Ports and Harbors is the local sponsor for dredging in tidal waters, and so would not be involved in dredging the Weirs Channel.

DREDGED MATERIAL PLACEMENT SITES

The USACE maintains a number of projects in New Hampshire's tidal waters to ensure safe navigation. While some of the material dredged from these waters is suitable for beach nourishment and/or in-river or near-shore placement as beneficial use, much is not. For those dredged materials that are clean but not suitable for beach nourishment or in-river or near-shore placement, there are only two practicable placement methods: onshore and offshore open water. Currently, New Hampshire does not have a designated onshore disposal site, and its primary offshore open water placement location, the Cape Arundel site, is scheduled to close on December 31, 2021. However, as mentioned above, EPA and the USACE have identified a site in federal waters northeast of the Isles of Shoals, known as the Isles of Shoals North Disposal Site, that they believe is suitable for the placement of dredged material from projects in southern Maine, New Hampshire and northern Massachusetts.

To address its future dredged material placement needs, the Army Corps had been developing a Regional Dredge Material Management Plan (DMMP). The DMMP was to be comprised of two components: a Comprehensive Upland Dredge Material Disposal Study (Upland Disposal Study), followed by an Ocean Placement Site Designation Study. Unfortunately, no Federal funding has yet been identified for completion of this effort.

The Upland Disposal Study involves continuation of a reconnaissance level study completed by the USACE in 2005 that identified and provided first-tier screening of 100 potential sites (in New Hampshire) for upland placement of dredged material. \$250,000 for the study was appropriated by Congress in the 2004 Energy and Water Development Appropriations Act. The reconnaissance level study was completed using approximately \$91,000 of the \$250,000 appropriation. The unexpended portion of the appropriation, \$159,000, was reprogrammed to other USACE projects with the expectation that it would be restored when needed. However, due to restrictions on the USACE's ability to restore reprogrammed funds, the remaining \$159,000 of appropriated funds has not been restored.

The Ocean Placement Site Designation Study involves identifying and formally designating a new ocean placement site. The Cape Arundel dredge material disposal site (CADS), located near Cape Arundel in York County, Maine, has been the primary ocean site for the placement of clean dredged material from the rivers and harbors of New Hampshire and southern Maine for over three decades. CADS was never formally designated for use in accordance with the Marine Protection Research and Sanctuaries Act (MPRSA) of 1972, and use of the site ceased in January 2010. In 2014 Congress passed legislation reopening CADS for limited use (no more than 80,000 CY per project) and for a limited time period (for 5 years, or until July 2019), however, its relatively small remaining capacity means that CADS is not a practicable option for meeting New Hampshire's future offshore dredge material placement needs. Pursuant to EPA policy, a National Environmental Policy Act (NEPA) document was prepared to identify and designate offshore placement sites. A NEPA document for site designation needs to look at the sources of dredged material in the region over at least a 20 year horizon, the quality

of material, alternatives for placement or beneficial use, and alternative ocean placement sites.

The USACE and EPA, in cooperation with the New Hampshire Fish & Game, Maine, and other state and federal resource agencies have been and continue to conduct site investigations for alternative offshore placement sites in association with the feasibility and design phases of the Portsmouth Harbor turning basin improvement project, which may need to rely on such a site for a portion of its construction. However a comprehensive approach to the needs of New Hampshire and southern Maine harbors remains a goal of both states. In the pursuit of this goal the USACE and the EPA have designated a new ocean placement site called Isles of Shoals North (IOSNDS) which was first used for the placement of material from Rye Harbor and more recently used for the placement of some of the material from the Portsmouth Harbor Piscataqua River Improvement Project.

SUMMARY

Statute currently requires that any applicant for a Dredge and Fill Permit from DES must pay a fee. The Division has a \$10,000 cap on the required fee, which is otherwise assessed based upon the impact to the environment. Because it is necessary for the Division to match the USACE funding in many dredge projects, a statutory change that would discontinue the practice of having one state agency pay such a large sum to another state agency should be considered.

Additional charts and documents are available at the U.S. Army Corps of Engineers New England District website at:

<http://www.nae.usace.army.mil/navigation/navigation2.asp?mystate=nh>

The Division of Ports and Harbors works closely with the Department of Environmental Services Wetlands Bureau, the Dredge Management Task Force (DMTF), and the other agencies with concerns and responsibilities in dredging.

The Division and the Wetlands Bureau have been working together to streamline the lengthy permitting process, anticipate environmental issues in order to better address them in a timely manner, and ensure the proper maintenance of the navigable waters of the State of New Hampshire. This process allows State and Federal resource agencies, working through the DMTF, to identify issues and respond without delaying the projects. It also allows for long-range permitting and prudent fiscal planning.