

Blue Hill Harbor, Maine Section 107 Navigation Improvement Project

Final Report Recommendation and Next Steps to Completion

Mark Habel
11 August 2022



US Army Corps
of Engineers®



BACKGROUND



- Town of Blue Hill study request 4 September 2009.
- Feasibility Study Cost Sharing Agreement Executed 29 June 2015.
- Public Review of Draft DPR and EA March-May 2020
- State Approvals (WQC & CZMC Received March 2021
- Final Report and Project Approved – 22 Feb 2022



Town of Blue Hill, Maine

SELECTMEN/ASSESSORS
EDWARD B. BARNISTER
JAMES M. DOBNEY
DANIEL B. GRAY

OVERSEER OF POOR
JOHN R. BARNISTER
JAMES M. DOBNEY
DANIEL B. GRAY

ASSESSOR/AGENTS
R. D. AVERY & S.

FIRST SETTLED 1792
INCORPORATED 1816, 23, 1869

131 RETURN IN OFFICE
FRIDAY 4th 1810005
P.O. Box 273
Blue Hill, Maine 04614

TREASURER/ADMIN. ASST.
JOHN STODOL
TAX COLLECTOR
CITYA PERKINS
TOWN CLERK
CITYA PERKINS
ROAD COMMISSIONER
DANIEL B. GRAY
PAVE CRIMP
JOHN R. BARNISTER
SUPT. OF SCHOOLS
ARTHUR WITTE

BLUE HILL, MAINE

September 4, 2009

John Kennelly
Chief, Planning Branch
U.S. Army Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

Dear Mr. Kennelly:

The Town of Blue Hill, Maine requests that the Corps of Engineers initiate the necessary steps for the dredging of channels and associated navigation features in Blue Hill Harbor under the continuing authority of Section 107 of the River and Harbor Act of 1960. The channels would include all-tide access to the Blue Hill Municipal Wharf and Cemetery Cove areas. The Town of Blue Hill is currently facing the possible loss of a right of way to Steamboat Wharf which would eliminate public all-tide access to the inner harbor.

Regarding the location at the Blue Hill Municipal Wharf, there are several reasons for our request:

- Currently the Blue Hill Municipal Wharf is accessible only at high tide, a great inconvenience to our growing fishing community and a deterrent to marine research and the development of marine-related industry in the area.
- Dredging a channel to this location would provide access to emergency services including a helipad and Blue Hill Memorial Hospital. It would also provide a launching point for the Harbormaster's rescue boat which is currently moored approximately five miles away from his office and emergency services.
- The shorefront location of the town's waste treatment facility offers the opportunity of a pump-out station for commercial and other vessels.
- Blue Hill Harbor is an ideal location for a number of storm moorings which are sorely needed in the area.

Nearby Cemetery Cove provides many opportunities for mariners as well:

- Facilities and equipment necessary for maintenance and repair of vessels exists on site.
- Access to haul-out trailers and storage for large vessels is available. Commercial fishermen greatly benefit from these amenities but can currently use them only at high tide.
- With the expected donation to the town of private land at this location, should the dredging project proceed, public in-town water access could be maximized.

The Town of Blue Hill looks forward to working with the Army Corps of Engineers to improve Blue Hill Harbor for the benefit of our commercial fishing fleet and all navigation interests. Please contact me should you have any questions about this request.

Sincerely,

John R. Barnister *Daniel B. Gray* *James M. Dobney*

The Blue Hill Board of Selectmen



Problems and Opportunities

- There is tidally restricted access to the Blue Hill Harbor Town Wharf, leading to delays, groundings and other inefficiencies in commercial fleet operations.
- The existing fleet (50 commercial vessels) is spread across multiple coves and landings within the town of Blue Hill. Two other landings are either overcrowded and exposed to damaging wind and waves or compete with recreational craft for access.
- Town wants to consolidate loading and unloading activities at the Town Wharf at Blue Hill Harbor to improve commercial fishing fleet access and safety.



Recommended Plan

- This study developed and analyzed navigation channel improvements and the benefits that each provides in order to optimize the recommended channel depth. The Recommended Plan would establish a channel -6 feet deep at mean lower low water (MLLW) by 80 feet wide, extending about 5,400 feet from deep water off Parker Point up-harbor to the Blue Hill town landing with a 0.6-acre turning basin at its head. Only the upper 2,600 feet of the channel would require dredging.
- The project requires dredging of about 71,500 CY of mixed silty and sandy material from the channel and turning basin. Testing determined that most of the material is suitable for open-water placement at the Eastern Passage Disposal Site (404). Material from the upper channel reaches includes about 10,600 cubic yards from the upper two feet of material that has been determined unsuitable. Unsuitable material would be placed in a CAD cell about 1.8 acres in size in the harbor north of the channel. The CAD cell would require dredging 19,500 cubic yards of material. 8,800 CY of channel material would be used to cap the CAD. All remaining suitable material, including material dredged for the channel and to create the CAD cell (a total of 71,600 CY) would be placed at the Eastern Passage Disposal Site.
- Dredging would be limited to the period of 8 November to 8 April.



Recommended Plan

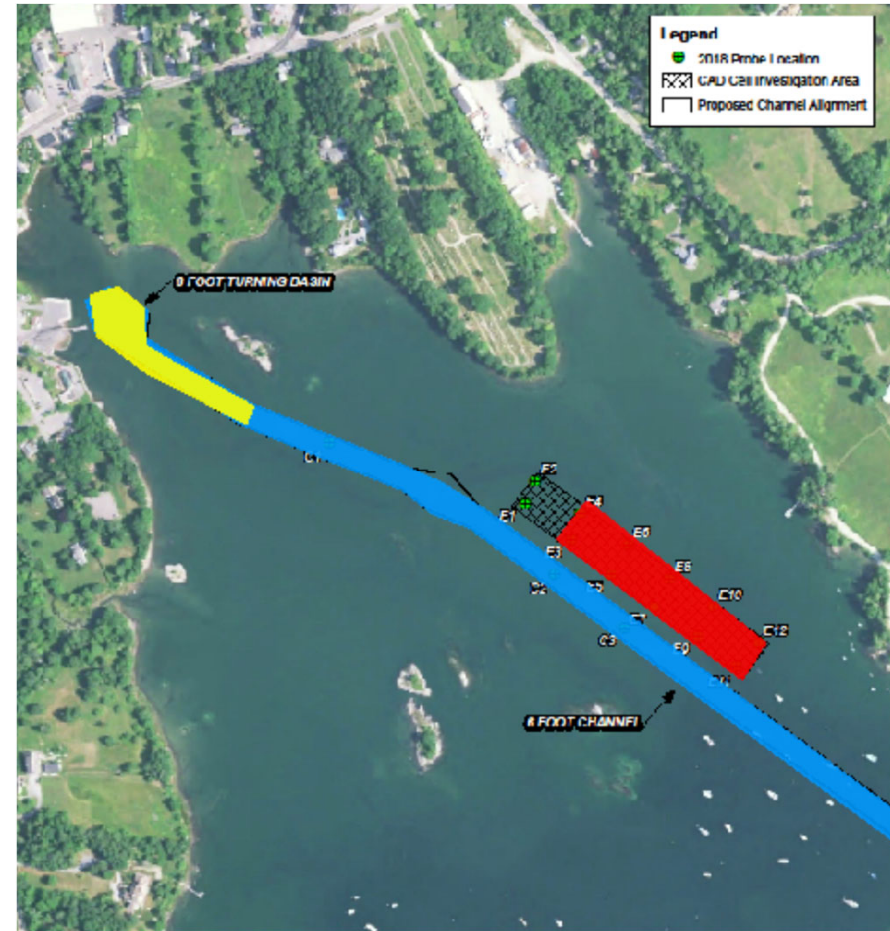
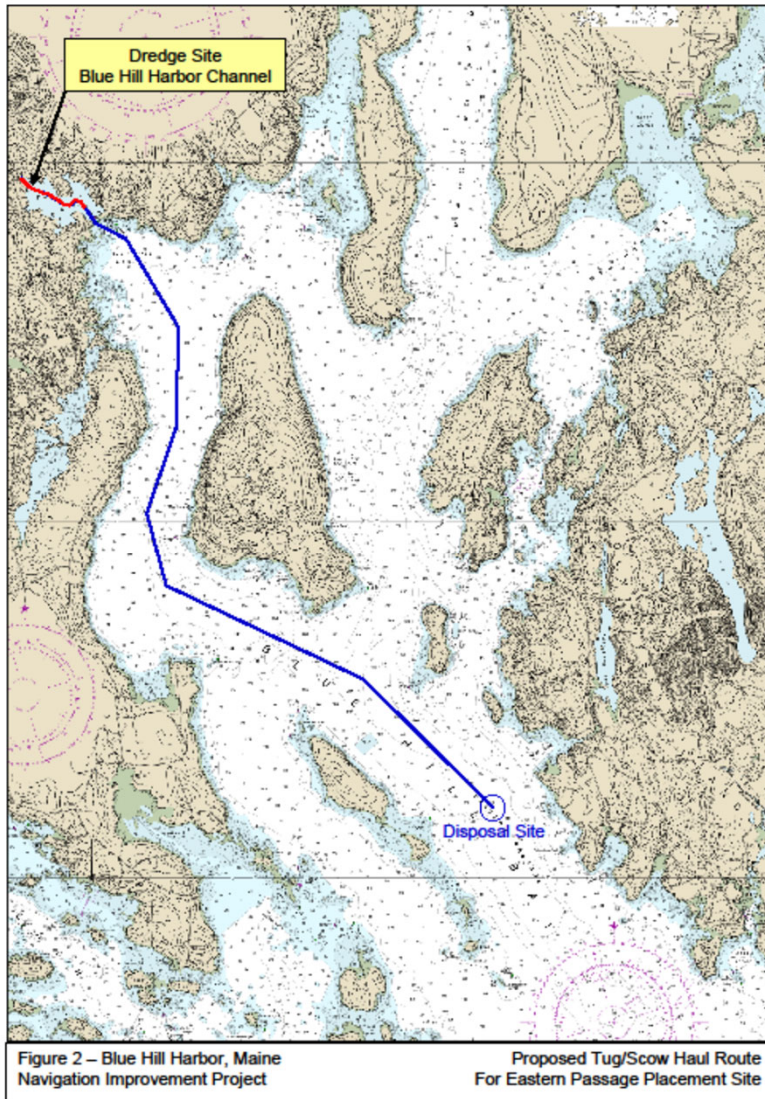
5





Project Design Data

Dredging Volumes	Cubic Yards
Channel and Turning Basin -6-Foot MLLW	
Material Suitable for Open Water Placement	60,900
Material Unsuitable for Open Water Placement	10,600
Dredging to Create Confined Disposal Cell	19,500
Disposal of Dredged Material	
Unsuitable Material Into CAD Cell	10,600
Suitable Channel Material to Cap CAD Cell	8,800
Suitable Material from Channel and CAD Cell to Eastern Passage Site	71,600



Disposal of Dredged Material
Suitable Material to Open Water East Passage DS
Unsuitable to CAD Cell in Harbor





Project Cost Sharing



Table 11 – Cost Apportionment for the Recommended Plan

FY 2024 – Q1 Costs December 2023 Mid-Point of Construction	Total Fully Funded Cost	Federal Share 90%	Non-Federal Share 10% x 2
Dredging and Disposal	\$2,476,000		
Contract Contingencies	\$372,000		
Construction Total	\$2,848,000		
Real Estate LERRs	\$10,000		
Engineering and Design	\$366,000		
Construction Management	\$223,000		
First Cost of Design and Construction	\$3,447,000	\$3,102,300	\$344,700
Post-Construction Additional Contribution	- - - - -	- - - - -	\$344,700
Real Estate Credit (Applied to Contribution)			-\$5,000
Total Cost Allocation	\$3,447,000	\$3,102,300	\$684.400



Project Benefits

Table 8 – Annual Benefits Update – FY2021		
FY2021 Commercial Benefits	Plan A-2 6-Foot	Plan A-3 7-Foot
Damages Prevented to Wharves and Floats	\$29,500	\$30,700
Damages Prevented to Fishing Vessels	\$64,700	\$67,400
Offloading Delays Reduced - Time Savings	\$35,100	\$36,600
Offloading Delays - Fuel Savings	\$28,900	\$30,100
Tidal Delays Reduced - Time Savings	\$8,600	\$9,000
Tidal Delays Reduced - Fuel Savings	\$14,200	\$14,800
Total Commercial Benefits	\$181,000	\$188,600
FY2021 Recreational Benefits	\$146,600	\$152,700
Total Annual Benefits	\$327,600	\$341,300



Project Benefits Total



Table 9 – Blue Hill Harbor – Updated Economic Impacts
Plan A2 (6-Foot Depth) – With CAD Cell Disposal of Unsuitable Material

FY 2022 Price Levels (Cost) and Benefits 2.25% (0.03352)	Total Commercial and Recreational Boating Benefits	Commercial Fishing Benefits Only
Annual Benefits	\$327,600	\$181,000
Annual Cost	\$125,600	\$125,600
Benefit-Cost Ratio	2.61	1.44
Net Annual Benefits	\$202,000	\$55,400



Remaining Tasks to Completion

	Current Schedule	Delayed Example
Town Commitment to Proceed with Design & Construction	Sept 2022	Spring 2023
Execution of Project Partnership Agreement	Dec 2022	Summer 2023
Receipt of Federal and Upfront Town Funds (1 st 10%)	Dec 2022	Nov 2023
Complete Project Design and Solicitation Documents	June 2023	May 2024
Solicit Bids	July 2023	June 2024
Award of a Contract	Sept 2023	Aug 2024
Begin Construction	Nov 2023	Nov 2024
Physical Completion	April 2024	April 2025
Receipt of Town's Final 10% Funds	July 2024	July 2025
Fiscal Close-Out	July 2024	July 2025
Future Federal Maintenance	As Needed	As Needed



Cost Estimates

Cost Estimates will be Updated as the Remaining Work Progresses

- Immediately Prior to Executing the Partnership Agreement
- Immediately Prior to Issuing a Solicitation for Bids
- Based on a Reasonable Low Bid
- At Project Fiscal Closeout

Costs May also Change Due to Changed Conditions during Construction including Contractor Claims