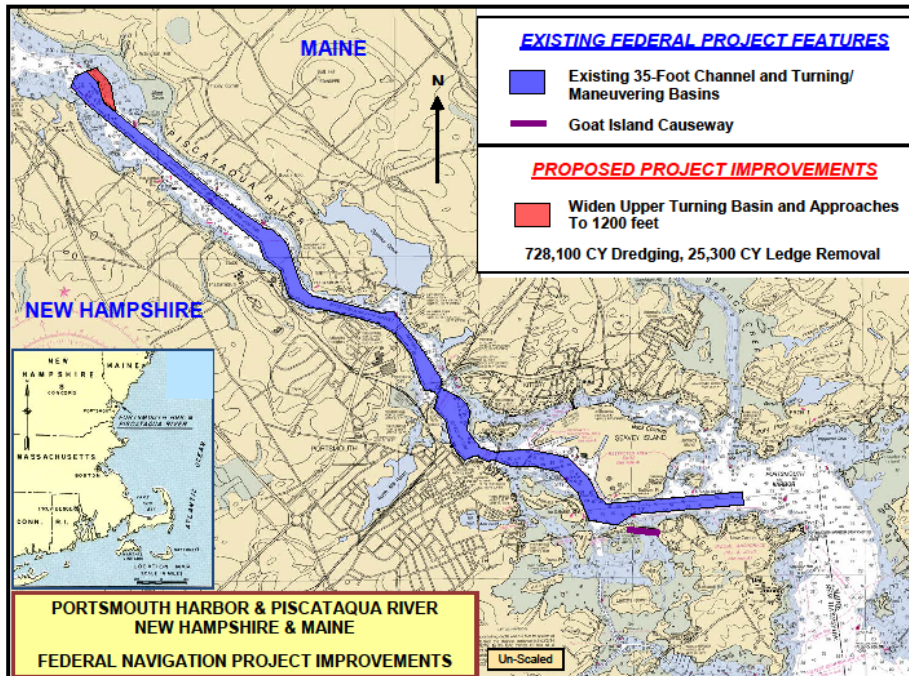


PORTSMOUTH HARBOR AND PISCATAQUA RIVER, NH & ME NAVIGATION IMPROVEMENT PROJECT

21 August 2014



ABSTRACT: The Portsmouth Harbor and Piscataqua River Navigation Improvement Project consists of widening the upper turning basin at the head of the channel to improve navigation safety and access for large bulk cargo carriers calling on the port's upper terminals. The existing project depth of -35 feet MLLW would be retained. The turning basin would be widened to 1200 feet from its current width of 800 feet. The New Hampshire Pease Development Authority,

Division of Ports and Harbors (New Hampshire Port Authority) is the non-Federal sponsor.

Portsmouth Harbor and the Piscataqua River form a portion of the boundary between the states of New Hampshire and Maine. The existing project consists of 35-foot deep entrance channel, with a minimum width of 400 feet, extending about 6.2 miles from deep water at the harbor entrance upriver to below the entrance to Great Bay. In the channel reaches between and below the three highway bridges, the channel was been widened through several ledges, in the bends and turning basins to up to 1000 feet, with the last work authorized by the Water Resources Development Act of 1986 and completed in 1992. A stone dike connecting Great Island to the mainland and shallow-draft channels in the Back Channels west of Great Island are also included in the existing project.

The study focused on providing a safer and more efficient waterway in the upstream reaches not covered by the 1986 improvements, eliminating problems such as insufficient turning and maneuvering conditions and delays for ships of up to 800 feet in length which call on the terminals located above Interstate 95. Cargoes include petroleum fuels, cement, gypsum, and liquid propane gas. Vessels of more than 760 feet in length are commonly turned in the current 800-foot wide basin on slack tide. The language authorizing the study was specific to examination of the turning basin width.

The study evaluated project benefits based on reduction in transportation costs generated from a shift in fleet mix to more calls by larger vessels, reduction in turning costs and grounding damages. The Recommended Plan will generate significant economic benefits for the nation, and is the National Economic Development (NED) Plan. Based on the economic, engineering, and environmental factors considered, the Recommended Plan consists of widening the existing

800-foot wide by -35-foot deep MLLW upper turning basin to 1200 feet. The Federal Base Plan includes ocean disposal of all dredged material at a site located about ten miles seaward of the harbor entrance. About 728,100 cubic yards of clean sandy glacial till and 23,500 cubic yards of rock would be removed to widen the turning basin. There are no mitigation measures required for the project.

The Recommended Plan reasonably maximizes net annual benefits. The estimated total cost for the Recommended Plan, including associated costs, is \$20,774,000 (October 2013 price levels escalated to October 2014). For the purpose of calculating the Section 902 limit, the total estimated first cost of the project, not including associated costs, is \$20,774,000 including an estimated Federal share of \$15,580,500 and an estimated non-Federal share of \$5,193,500. Average annual navigation benefits are estimated at \$3,285,500 with total annual costs of \$1,076,700, producing an overall benefit-to-cost ratio of 3.1 at 3.5 percent discount rate, and net annual benefits of \$2,208,800.

Alternative beneficial uses to be further refined in the design phase include use of the sandy material for nearshore feeder bar placement off of eroding beaches at four communities in Maine and Massachusetts that have indicated a willingness to pay all costs over that of the Federal Base Plan to receive the material. Similarly the Town of Kittery Maine has indicated a willingness to receive the rock for use in constructing a wave break to protect a recreational anchorage at Pepperell Cove in that town. Neither the Government nor the non-Federal Sponsor are parties to these alternative uses. The states and communities proposing such alternative uses would need to secure all necessary Federal, State and local approvals to facilitate such placement, in addition to providing the additional cost. To the extent that any or all of these communities are not able to secure the necessary approvals or funding, the Federal Base Plan for ocean placement would be followed, or the excess material made available to the remaining interested communities.

REPORT DOCUMENTATION: Pertinent documentation on the project, the results of the CWRB, and subsequent Washington-Level Review Actions, are linked below:

- CWRB Agenda
- Project Map/Placemat
- Project Summary
- CWRB Briefing Slides
- CWRB Lessons Learned
- CWRB Meeting Record
- State & Agency Review Comment Letters
- Documentation of Review Findings
- Signed Chief of Engineers Report
- Advance Copy to Congressional Committees
- ASA(CW) Memo to OMB
- OMB Response
- ASA(CW) Transmittal to Congress
- Signed Record of Decision
- Authorization

ADDITIONAL INFORMATION: [North Atlantic Division](#)
[New England District](#)