

U.S. Army Corps of Engineers
Richard Heidebrecht, Project Manager
696 Virginia Road
Concord, MA 0742-2751

WATER QUALITY CERTIFICATION

In Fulfillment of

**Section 401 of the United States Clean Water Act (33 U.S.C 1341)
and NH RSA 485-A:12, III**

WQC # 2012-404I-002

Activity Name	Improvement Dredging of Hampton Harbor
Activity Location	Seabrook and Hampton, NH
Affected Surface waters	Hampton Harbor
Owner/Applicant	U.S. Army Corps of Engineers 696 Virginia Road Concord, MA 0742-2751
Appurtenant permit(s):	DES Wetlands Permit # 2012-01073
DATE OF APPROVAL (subject to Conditions below)	June 28, 2012

A. INTRODUCTION

The U.S. Army Corps of Engineers (Applicant) proposes to perform improvement and maintenance dredging in Hampton Harbor and the Hampton Harbor Federal Navigation Project in Hampton and Seabrook, NH. Disposal of dredged material is proposed to be placed along areas of Hampton and Seabrook beaches (Activity). A more complete description of the Activity is provided in item D-1 of this Certification.

This 401 Water Quality Certification (401 WQC) documents laws, regulations, determinations and conditions related to the Activity for the attainment and maintenance of NH surface water quality standards, including the provisions of NH RSA 485-A:8 and NH Code of Administrative Rules Env-Wq 1700, for the support of designated uses identified in the standards.

B. 401 CERTIFICATION APPROVAL

Based on the findings and conditions noted below, the New Hampshire Department of Environmental Services (DES) has determined that any discharge associated with the Activity will not violate surface water quality standards, or cause additional degradation in surface waters not presently meeting water quality standards. DES hereby issues this 401 WQC subject to the conditions defined in Section E of this 401 Certification, in accordance with Section 401 of the United

States Clean Water Act (33 U.S.C. 1341) and NH RSA 485-A:12, III.

C. STATEMENT OF FACTS AND LAW

- C-1. Section 401 of the United States Clean Water Act (33 U.S.C. 1341) states, in part: "Any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate...that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title.....No license or permit shall be granted until the certification required by this section has been obtained or has been waived...No license or permit shall be granted if certification has been denied by the State..."
- C-2. Section 401 further states, in part "Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations...and shall become a condition on any Federal license or permit subject to the provisions of this section."
- C-3. NH RSA 485-A:12, III, states: "No activity, including construction and operation of facilities, that requires certification under section 401 of the Clean Water Act and that may result in a discharge, as that term is applied under section 401 of the Clean Water Act, to surface waters of the state may commence unless the department certifies that any such discharge complies with the state surface water quality standards applicable to the classification for the receiving surface water body. The department shall provide its response to a request for certification to the federal agency or authority responsible for issuing the license, permit, or registration that requires the certification under section 401 of the Clean Water Act. Certification shall include any conditions on, modifications to, or monitoring of the proposed activity necessary to provide assurance that the proposed discharge complies with applicable surface water quality standards. The department may enforce compliance with any such conditions, modifications, or monitoring requirements as provided in RSA 485-A:22."
- C-4. NH RSA 485-A:8 and Env-Wq 1700 (Surface Water Quality Regulations), together fulfill the requirements of Section 303 of the Clean Water Act that the State of New Hampshire adopt water quality standards consistent with the provisions of the Act.
- C-5. Env-Wq 1701.02, entitled "Applicability", states that:
- "(a) These rules shall apply to all surface waters.
- (b) These rules shall apply to any person who causes point or nonpoint source discharge(s) of pollutants to surface waters, or who undertakes

hydrologic modifications, such as dam construction or water withdrawals, or who undertakes any other activity that affects the beneficial uses or the level of water quality of surface waters."

C-6. Env-Wq 1702.18 defines a discharge as:

"a. The addition, introduction, leaking, spilling, or emitting of a pollutant to surface waters, either directly or indirectly through the groundwater, whether done intentionally, unintentionally, negligently, or otherwise; or

b. The placing of a pollutant in a location where the pollutant is likely to enter surface waters."

C-7. Env-Wq 1702.39 defines a pollutant as: "pollutant" as defined in 40 CFR 122.2. This means "dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water."

C-8. Env-Wq 1702.46 defines surface waters as "perennial and seasonal streams, lakes, ponds and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses and other bodies of water, natural or artificial," and waters of the United States as defined in 40 CFR 122.2."

C-9. Surface waters are navigable waters for the purposes of certification under Section 401 of the Clean Water Act. Surface waters are jurisdictional wetlands for the purposes of wetlands permitting under RSA 482-A.

C-10. Env-Wq 1703.01 (c) states that "All surface waters shall provide, wherever attainable, for the protection and propagation of fish, shellfish and wildlife, and for recreation in and on the surface waters."

C-11. Env-Wq 1703.14, entitled "Nutrients", states that

"a. Class A waters shall contain no phosphorous or nitrogen unless naturally occurring.

b. Class B waters shall contain no phosphorous or nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring.

c. Existing discharges containing either phosphorous or nitrogen which encourage cultural eutrophication shall be treated to remove phosphorus or nitrogen to ensure attainment and maintenance of water quality standards.

d. There shall be no new or increased discharge of phosphorous into lakes or ponds.

e. There shall be no new or increased discharge(s) containing phosphorous or nitrogen to tributaries of lakes or ponds that would contribute to cultural eutrophication or growth of weeds or algae in such lakes and ponds."

C-12. Env-Wq 1703.19, entitled "Biological and Aquatic Community Integrity", states that

"a. The surface waters shall support and maintain a balanced, integrated and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region; and

b. Differences from naturally occurring conditions shall be limited to non-detrimental differences in community structure and function."

C-13. Env-Wq 1703.21 (a)(1) states that "Unless naturally occurring or allowed under part Env-Ws 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that injure or are inimical to plants, animals, humans or aquatic life."

C-14. Env-Wq 1703.07 through 1703.11 contain standards relative to dissolved oxygen, bacteria, benthic deposits, oil and grease, and turbidity.

C-15. Env-Wq 1702.06 states "'Best management practices" means those practices which are determined, after problem assessment and examination of all alternative practices and technological, economic and institutional considerations, to be the most effective practicable means of preventing or reducing the amount of pollution generated by point or nonpoint sources to a level compatible with water quality goals."

C-16. Section 303(d) of the Clean Water Act (33 U.S.C. 1313(d)) and the regulations promulgated thereunder (40 C.F.R. 130.0 – 40 C.F.R. 130.11) require states to identify and list surface waters that are violating state water quality standards (i.e., Section 303(d) List) that do not have an approved TMDL. For these water quality-impaired waters, states must establish Total Maximum Daily Loads (TMDLs) for the pollutants causing the impairments and submit the list of impaired surface waters and TMDLs to EPA for approval. TMDLs include source identification, determination of the allowable load and pollutant reductions (by source) necessary to meet the allowable load. Once a TMDL is conducted, the pollutant/surface water is transferred to the list of impaired waters with approved TMDLs (known as Category 4A waters). The Section 303(d) List is, therefore, a subset of all impaired waters. The most recent EPA approved Section 303(d) list of impaired waters is the 2010 Section 303(d) List. A list of all impaired waters is available at

<http://www.des.state.nh.us/organization/divisions/water/wmb/swqa/2010/index.htm>

- C-17. When a surface water does not meet water quality standards (i.e., when it is impaired), the addition of pollutants causing or contributing to impairment is prohibited in accordance with the following:
- a. Env-Wq 1703.03 (a) states that "The presence of pollutants in the surface waters shall not justify further introduction of pollutants from point or nonpoint sources, alone or in any combination".
 - b. NH RSA 485-A:12 (I) (Enforcement of Classification) states that "After adoption of a given classification for a stream, lake, pond, tidal water, or section of such water, the department shall enforce such classification by appropriate action in the courts of the state, and it shall be unlawful for any person or persons to dispose of any sewage, industrial, or other wastes, either alone or in conjunction with any other person or persons, in such a manner as will lower the quality of the waters of the stream, lake, pond, tidal water, or section of such water below the minimum requirements of the adopted classification".
- C-18. Antidegradation provisions in the NH surface water quality regulations are included in Env-Wq 1702 and Env-Wq 1708.
- C-19. The Activity reviewed for this 401 Certification requires a federal Section 404 permit.
- C-20. The Applicant is responsible for the Activity.
- C-21. The Applicant submitted an application for 401 Certification to DES on March 16, 2012. Updated information regarding the extent of dredging and estimated volume of dredged material was submitted in June, 2012. Although the Applicant (i.e., the U.S. Army Corps of Engineers), does not issue a section 404 permit for itself, federal regulation 33 CFR 336.1(a)(1), indicates that the Corps must seek 401 Certification for their dredging projects.
- C-22. In accordance with the National Environmental Policy Act of 1969 (42 USC 4332(2)(c) the Applicant submitted an Environmental Assessment (EA) dated January, 2012.
- C-23. On June 20, 2012 the DES Wetlands Bureau issued Wetlands Permit #2012-01073 for alterations or impacts to jurisdictional wetlands associated with the Activity.
- C-24. The DES Coastal Program Federal Consistency Coordinator has not yet issued a decision regarding the Activity since it is contingent upon issuance of the Wetlands Permit and 401 Water Quality Certification.

- C-25. DES issued a draft certification for public comment from June 7, 2012 to June 27, 2012. Two comments were received. DES' response to comments will be posted on the DES Water Quality Certification website along with this final certification (see http://des.nh.gov/organization/divisions/water/wmb/section401/coe_ind.htm).

D. FINDINGS

- D-1. The Activity reviewed for this 401 Certification includes improvement dredging in Hampton Harbor and maintenance dredging of the Hampton Harbor Federal Navigation Project in Hampton and Seabrook, NH. A more complete description is provided below which is from the Applicant's 401 Certification application and updated information submitted in June, 2012.

The Activity will involve the maintenance and improvement dredging on the Hampton and Seabrook sides of Hampton Harbor by the U.S. Army Corps of Engineers and the State of New Hampshire. The areas to be dredged are the entrance channel, the inner harbor commercial areas, and the State recreational anchorage. The total dredging volume for the entire Activity will be approximately 172,200 cubic yards with a total dredging area of approximately 1,530,000 square feet (35.1 acres). Dredging will be conducted using a hydraulic pipeline dredge. The majority of dredged materials will be placed along areas of Hampton Beach and Seabrook Beach which are located adjacent to the Activity area. A portion of the dredge materials will be placed behind and within an existing composite sheet pile built in 2005 to protect the middle ground sand flat. The Activity will be performed during a five-month period between October 1 and March 15 of the year which funding becomes available. Dredging of the inner harbor would occur between October 15 thorough February 1, dredging in the entrance channel would occur between October 15 and March 15, and disposal on the beaches would occur between October 1 and March 15.

- D-2. The application for Certification includes information in the Environmental Assessment (see C-22).
- D-3. The Activity requires New Hampshire certification under Section 401 of the federal Clean Water Act and RSA 485-A:12, III. The Activity will result in a discharge and may cause the permanent alteration of, or temporary impacts to surface waters.
- D-4. The Activity includes dredge of wetlands. The 401 Certification decision relies, in part, on an approved permit from the DES Wetlands Bureau for the potential impacts to jurisdictional wetlands. Through its processing and issuance, the DES wetlands permit will address the dredge impacts to jurisdictional wetlands.
- D-5. The named and unnamed fresh water and tidal rivers and streams, lakes and ponds, and wetlands in NH affected by the Activity, are surface waters under

Env-Wq 1702.46. DES has assigned Assessment Unit (AU) identification numbers to many, but not all surface waters. Surface waters that do not have an AU number are still considered surface waters of the State in accordance with Env-Wq 1702.46. Surface waters that could be potentially affected by this Activity and their associated AU numbers (where available) include the following:

Assessment Unit (AU)	Class	Description
NHEST600031004-09-06	B	Hampton/Seabrook Harbor
NHEST600031004-09-07	B	Fish Cooperative Safety Zone
NHOCN000000000-08-01	B	Atlantic Ocean Seabrook WWTP Outfall

D-6. The potentially affected surface waters are Class B waterbodies; therefore Class B New Hampshire surface water quality standards apply to the Activity. Class B tidal waterbodies are considered suitable for aquatic life, primary and secondary contact recreation, fish/shellfish consumption, wildlife, and, after adequate treatment, as a water supply ¹.

D-7. The assessment unit number for the potentially impacted surface waters as well as any known water quality impairments are provided in the table below. All impairments, with the exception of those highlighted in bold (which have approved TMDLs), are on the 2010 Section 303(d) List:

Assessment Unit (AU)	Waterbody Name	Cause of Impairment (Designated Use Impaired)
NHEST600031004-09-06	Hampton/Seabrook Harbor	Mercury (FC, SFC) Polychlorinated biphenyls (FC, SFC) Enterococcus (PCR) Dioxin (including 2,3,7,8-TCDD) (SFC) Fecal Coliform (SFC)
NHEST600031004-09-07	Fish Cooperative Safety Zone	Mercury (FC, SFC) Polychlorinated biphenyls (FC, SFC) Enterococcus (PCR) Dioxin (including 2,3,7,8-TCDD) (SFC) Fecal Coliform (SFC)

1. 2010 Section 305(b) and 303(d) Consolidated Assessment and Listing Methodology. February 2010. NH Department of Environmental Services. NHDES- R-WD-10-3.

Assessment Unit (AU)	Waterbody Name	Cause of Impairment (Designated Use Impaired)
NHOCN000000000-08-01	Atlantic Ocean Seabrook WWTP Outfall	Mercury (FC, SFC) Polychlorinated biphenyls (FC, SFC) Enterococcus (PCR) Dioxin (including 2,3,7,8-TCDD) (SFC) Fecal Coliform (SFC)
Notes: AL = Aquatic Life, PCR = Primary Recreation, SCR = Secondary Recreation, FC = Fish Consumption, SFC = Shellfish Consumption		
Impairments highlighted in bold have approved TMDLs. All other impairments are on the 2010 Section 303(d) List.		

As stated in section C-17 of this Certification, when a surface water does not meet water quality standards (i.e., when it is impaired), the addition of pollutants causing or contributing to impairment is prohibited. That is, existing loadings must be held.

Since sediment is being removed, the Activity is not expected to result in a permanent increase in pollutants; consequently it is expected that the Activity will comply with statute and regulation cited in C-17 regarding no addition of pollutants causing or contributing to impairment.

- D-8. Grain size analyses were conducted in 2001 at numerous sites in the area of the Activity. This analysis as reported in the Environmental Assessment² showed that the sediments consisted of predominantly medium to fine grained sands with less than 1% fines (silt-clay). Coarse sand and gravel were a small fraction of the material. Chemical analysis of the material was not conducted as sandy materials with low fines content (<15%) are unlikely to contain any significant levels of contaminants. Also the material is not located near any known sources of contamination and there have been no recent petroleum or chemical spills in the area of the Activity.
- D-9. On June 5, 2012 the area of the Activity was surveyed by NH Fish and Game Department, Marine Division and DES Shellfish Program staff. The conclusion of this survey was that the Activity would not have a significant impact on populations of shellfish in the area of the Activity
- D-10. During dredging, the disturbance of sand and sediment may temporarily increase turbidity levels in surface waters adjacent to and downstream from the area affected by the Activity. To help minimize turbidity in the water column during the dredging operation, dredging will be conducted using a hydraulic pipeline dredge. This method of dredging uses suction pumps to loosen and remove the sediment from the bottom. Given the sandy nature of the dredged material (see D-8), and the proposed dredging method, the

² Environmental Assessment, Finding of No Significant Impact, and Clean Water Act Section 404 (b)(1) US Army Corps of Engineers, New England District, January 2012.

turbidity effects are expected to be relatively short term and localized in the dredging area. Should turbidity unexpectedly become a significant issue, DES has the authority to require the Applicant to implement measures necessary to control turbidity.

E. WATER QUALITY CERTIFICATION CONDITIONS

Unless otherwise authorized by DES, the following conditions shall apply:

- E-1. The Activity shall not cause or contribute to a violation of surface water quality standards. DES may modify this 401 Certification to include additional conditions to ensure the Activity complies with surface water quality standards.
- E-2. The Activity shall be conducted between October 1 and March 15 (inclusive).
- E-3. Dredging shall be performed as described in the Applicant's 401 Certification application (see C-21 and C-22).
- E-4. The Applicant shall comply with the conditions of DES Wetlands Bureau Permit #2012-01073, including any amendments and shall comply with DES wetlands rules and regulations. The conditions shall become conditions of this 401 Certification upon issuance of this 401 Certification
- E-5. The Applicant shall allow DES to inspect the Activity and its effects on affected surface waters at any time to monitor compliance with the conditions of this 401 Certification.
- E-6. The Applicant shall consult with DES regarding any proposed modifications to the Activity, including operation and disposal, to determine whether this 401 certification requires modification in the future.

F. APPEAL

If you are aggrieved by this decision, you may appeal the decision to the Water Council. Any appeal must be filed within 30 days of the date of this decision, and must conform to the requirements of Env-Wq 200. Inquiries regarding appeal procedures should be directed to NHDES Council Appeals Clerk, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095; telephone (603) 271-6072.

If you have questions regarding this Certification, please contact Owen David at (603) 271-0699.



Harry T. Stewart
Director, DES Water Division