

New Hampshire Department of Environmental Services
WATER QUALITY CERTIFICATION
In Fulfillment of
NH RSA 485-A:12, III

Certification Number	WQC 2021-404I-004
Activity Name	Isle of Shoals Breakwater Maintenance and Repair Project
Activity Location	Rye, New Hampshire (Star Island) Rockingham County
Potentially Affected Surface Waters Near the Activity	Atlantic Ocean: NHOCN000000000-09
Owner/Applicant	U.S. Army Corps of Engineers, New England District
Agent Filing Application on Behalf of Owner/Applicant	Larry Oliver Chief, Environmental Branch U.S. Army Corps of Engineers, New England District 696 Virginia Road Concord, MA 01742-2751
Applicable Federal License or Permit Requiring Section 401 water quality certification	See Facts C-8, C-9, C-10, and C-11 regarding federal law and regulations requiring the U.S. Army Corps of Engineers to obtain a Section 401 water quality certification.
Decision	Granted with Conditions
Date of Issuance	April 13, 2022

A. INTRODUCTION

On November 19, 2021, the New Hampshire Department of Environmental Services (NHDES) received an Application for Water Quality Certification (Application) from the U.S. Army Corps of Engineers, New England District (Applicant), for the following project (Activity or Project):

US Army Corps of Engineers Isles of Shoals Harbor of Refuge Federal Navigation Project Breakwater Maintenance and Repair Project in Kittery, Maine, and Rye, New Hampshire.

The Application included a cover letter, a complete NHDES Application form, and a copy of a draft Environmental Assessment (EA) and an Eelgrass Damage Assessment and Mitigation Plan (DAMP). In the Application, the Applicant requested a Water Quality Certification for the Project from NHDES in accordance with Section 401 of the Clean Water Act (§ 401 Water Quality Certification or Certification). The purpose of the Certification is to provide reasonable assurance that discharges from the proposed Project will comply with New Hampshire surface water quality standards (NH RSA 485-A:8 and NH Code of Administrative Rules Env-Wq 1700).

In the draft EA, the Applicant describes, among other things, anticipated temporary and minor impacts to water quality associated with the Project's repair of three breakwaters that were damaged by winter storms in 2015 and 2018. One of the breakwaters is located between Star Island in Rye, New Hampshire and Cedar Island in

Kittery, Maine, and is approximately 800 feet long. A more complete description of the Project is provided in Finding D-2 of this Certification.

This Certification includes the following:

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B. DECISION

Based on the facts, laws, findings, and conditions included herein, NHDES has determined that there is reasonable assurance that construction and operation of the proposed Project will be conducted in a manner which will comply with New Hampshire surface water quality standards (RSA 485-A:8 and Env-Wq 1700)¹. NHDES hereby grants this Certification in accordance with RSA 485-A:12, III, subject to the conditions in Section E of this Certification.

C. FACTS AND LAWS

Federal 401 Certification Laws and Regulations

- C-1. Section 401(a)(1) of the federal Clean Water Act (CWA) (33 U.S.C. §1341(a)(1)) requires 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 the CWA. The CWA provision most applicable for this project is compliance with state surface water quality standards. CWA section 303 (33 U.S.C § 1313).
- C-2. Section 401(d) (33 U.S.C §1341(d)), of the CWA provides that: “Any certification provided under this section [401] shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to ensure that any applicant for a Federal license or permit will comply with [enumerated provisions of the CWA]... and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.”
- C-3. Federal regulations regarding Section 401 water quality certification may be found in the Code of Federal Regulations (CFR), Title 40, PART 121 (40 CFR 121) titled “State Certification of Activities

¹ This language is required by federal regulations. See Fact C-3.

Requiring a Federal License or Permit". On July 13, 2020, the U.S. Environmental Protection Agency (EPA) published final revisions to this rule in the Federal Register (Vol. 85, No. 134, pages 42210 to 42287), which became effective on September 11, 2020 ([2020 Rule](#)). On October 21, 2021, the U.S. District Court for the Northern District of California issued an order² remanding and vacating EPA's 2020 Rule. The vacatur was nationwide, and the order required a temporary return to [EPA's 1971 Rule](#) until EPA finalized a new certification rule. However, on April 6, 2022, the U.S. Supreme Court reinstated the 2020 Rule.³

40 CFR §121.7(c) requires the following: "Any grant of certification shall be in writing and shall include a statement that the discharge from the proposed project will comply with water quality requirements."

- C-4. 40 CFR §121.1(f) defines "discharge", for the purposes of 40 CFR 121, as "a discharge from a point source into a water of the United States."
- C-5. The term "discharge," as applied under section 401 of the Clean Water Act means the potential for a discharge. It does not need to be a certainty, only that it may occur should the federal license or permit be granted. Further, the discharge does not need to involve the addition of pollutants (such as water released from the tailrace of a dam). As the U.S. Supreme Court has stated: "[w]hen it applies to water, 'discharge' commonly means a 'flowing or issuing out'" and an addition of a pollutant is not "fundamental to any discharge."⁴
- C-6. The CWA Section 502(7) (33 U.S.C. §1362(7)) defines "navigable waters," as "waters of the United States".
- C-7. Waters of the United States are defined in 40 CFR § 122.2.
- C-8. Section 404(t) of the CWA regarding "Navigable waters within State jurisdiction" states the following: "Nothing in this section shall preclude or deny the right of any State or interstate agency to control the discharge of dredged or fill material in any portion of the navigable waters within the jurisdiction of such State, including any activity of any Federal agency, and each such agency shall comply with such State or interstate requirements both substantive and procedural to control the discharge of dredged or fill material to the same extent that any person is subject to such requirements. This section shall not be construed as affecting or impairing the authority of the Secretary to maintain navigation."
- C-9. 33 CFR § 338.2(c) states the following with regards to fill activities in waters of the United States conducted by the U.S. Army Corps of Engineers for operation and maintenance activities: "Water quality certifications should be requested and, if applicable, coastal zone consistency determinations should be provided using the procedures of § 336.1(b) (8) and (9) of this chapter [Chapter II of Title 33]."
- C-10. 33 CFR 336.1(a)(1) states the following: "The CWA requires the Corps to seek state water quality certification for discharges of dredged or fill material into waters of the U.S."
- C-11. 33 CFR § 336.1(b)(8)(i) states the following, among other things, with regards to required procedures of the U.S. Army Corps of Engineers to request a water quality certification from the state: "In addition to

² In re Clean Water Act Rulemaking, No. 20-cv-4636, et al. (Oct. 21, 2021)

³ The Supreme Court case that is referred to is *Louisiana, et al., Applicants v. American Rivers, et al.*, 596 U.S. No. 21A539 (2022)

⁴ The Supreme Court case that is referred to is *S.D. Warren Co. v. Maine Board of Environmental Protection et al.*, 547 U.S. 370, 126 S. Ct. 1853 (2006).

the Corps section 404 public notice, information and data demonstrating compliance with state water quality standards will be provided to the state water quality certifying agency along with the request for water quality certification. The information and data may be included within the 404(b)(1) evaluation. The district engineer will request water quality certification to be consistent with the maintenance dredging schedule for the project. Submission of the public notice, including information and data demonstrating compliance with the state water quality standards, will constitute a valid water quality certification request pursuant to section 401 of the CWA.”

State 401 Certification Law

C-12. 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.”

State Surface Water Quality Standards⁵

C-13. NH RSA 485-A:8 and Env-Wq 1700 (Surface Water Quality Standards), together fulfill the requirements of Section 303 of the Clean Water Act (CWA) (33 U.S.C 1313) that the State of New Hampshire adopt water quality standards consistent with the provisions of the CWA.

C-14. Env-Wq 1701.01 Purpose. “The purpose of these rules is to establish water quality standards for the state’s surface water uses as set forth in RSA 485-A:8, I, II, III and V. These standards are intended to protect public health and welfare, enhance the quality of water, and serve the purposes of the federal Clean Water Act, 33 U.S.C. 1251 et seq., and RSA 485-A. These standards provide for the protection and propagation of fish, shellfish, and wildlife, and provide for such uses as recreational activities in and on the surface waters, public water supplies, agricultural and industrial uses, and navigation in accord with RSA 485-A:8, I and II.”

C-15. Env-Wq 1701.02, titled “Applicability,” states that these rules [Env-Wq 1700] shall apply to:
 “(a) All surface waters; and
 (b) Any person who:
 (1) Causes any point or nonpoint source discharge of any pollutant to surface waters;
 (2) Undertakes hydrologic modifications, such as dam construction or water withdrawals;
 or
 (3) Undertakes any other activity that affects the beneficial uses or the water quality of surface waters.”

C-16. Env-Wq 1702.44 defines “surface waters” as “surface waters of the state’ as defined in NH RSA 485-A:2, XIV and waters of the United States as defined in 40 CFR 122.2.”

⁵ All New Hampshire surface water quality standards apply to the Activity. The standards specifically called out in the Certification should not be interpreted as the only standards that may apply.

NH RSA 485-A:2, XIV defines "surface waters of the state" 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."

NH RSA 482-A:2, X, defines "wetlands" as "an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

- C-17. Env-Wq 1702.05 defines "benthic community" as "the community of plants and animals that live on, over, or in the substrate of the surface water."
- C-18. Env-Wq 1702.06 defines "benthic deposit" as "any sludge, sediment, or other organic or inorganic accumulations on the bottom of the surface water."
- C-19. Env-Wq 1702.07 defines "best management practices" as "those practices that 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-20. Env-Wq 1702.08 defines "biological integrity" as "the ability of an aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region."
- C-21. Env-Wq 1702.17 defines "designated uses" as "those uses specified in water quality standards for each water body or segment whether or not such uses are presently occurring. The term includes the following:
- (a) Swimming and other recreation in and on the water, meaning the surface water is suitable for swimming, wading, boating of all types, fishing, surfing, and similar activities;
 - (b) Fish consumption, meaning the surface water can support a population of fish free from toxicants and pathogens that could pose a human health risk to consumers;
 - (c) Shellfish consumption, meaning the tidal surface water can support a population of shellfish free from toxicants and pathogens that could pose a human health risk to consumers;
 - (d) Aquatic life integrity, meaning the surface water can support aquatic life, including a balanced, integrated, and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of the region;
 - (e) Wildlife, meaning the surface water can provide habitat capable of supporting any life stage or activity of undomesticated fauna on a regular or periodic basis; and
 - (f) Potential drinking water supply, meaning the surface water could be suitable for human intake and meet state and federal drinking water requirements after adequate treatment."
- C-22. Env-Wq 1702.18 defines "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-23. Env-Wq 1702.22 defines “existing uses” as “those uses, other than assimilation waste transport, that actually occurred in the waterbody on or after November 28, 1975, whether or not they are included in the water quality standards.”
- C-24. Env-Wq 1702.26 defines “mixing zone” as “a defined area or volume of the surface water surrounding or adjacent to a wastewater discharge where the surface water, as a result of the discharge, might not meet all applicable water quality standards.
- C-25. Env-Wq 1702.31 defines “nonpoint source” as “any source other than a point source.”
- C-26. Env-Wq 1702.33 defines “nuisance species” as “any species of flora or fauna living in or near the water whose noxious characteristics or presence in sufficient number or mass prevent or interfere with a designated use of those surface waters.”
- C-27. Env-Wq 1702.37 defines “point source” as “a discernible, confined, and discrete conveyance from which pollutants are or might be discharged, excluding return flows from irrigated agriculture or agricultural stormwater runoff. The term includes, but is not limited to, a pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft.”
- C-28. Env-Wq 1702.38 defines “pollutant” as “‘pollutant’ as defined in 40 CFR 122.2.” According to 40 CFR 122.2, “pollutant” 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-29. Env-Wq 1703.01 titled “Water Use Classifications; Designated Uses” states the following:
“(a) All surface waters shall be classified as provided in RSA 485-A:8, based on the standards established therein for class A and class B waters. Each classification shall identify the most sensitive use it is intended to protect.
(b) All surface waters shall be restored to meet the water quality criteria for their designated classification including existing and designated uses, and to maintain the chemical, physical, and biological integrity of surface waters.
(c) 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.
(d) Unless high or low flows are caused by naturally-occurring conditions, surface water quantity shall be maintained at levels that protect existing uses and designated uses.”
- C-30. Env-Wq 1703.03(c) titled “General Water Quality” includes the following:
“Unless otherwise specifically allowed by a statute, rule, order, or permit, the following physical, chemical, and biological criteria shall apply to all surface waters: (1) All surface waters shall be free from substances in kind or quantity that:
a. Settle to form harmful benthic deposits;
b. Float as foam, debris, scum or other visible substances;
c. Produce odor, color, taste or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses;

- d. Result in the dominance of nuisance species; or
- e. Interfere with recreational activities. [..]”

C-31. Env-Wq 1703.08 titled “Benthic Deposits” states the following:

- “(a) Class A waters shall contain no benthic deposits, unless naturally occurring.
- (b) Class B waters shall contain no benthic deposits that have a detrimental impact on the benthic community, unless naturally occurring.”

C-32. Env-Wq, 1703.09, 1703.10 and 1703.12 include water quality criteria for oil and grease, color and slicks, odors, and surface floating solids, respectively.

C-33. RSA 146-A:2, III defines “oil” as “petroleum products and their by-products of any kind, and in any form including, but not limited to, petroleum, fuel, sludge, crude, oil refuse or oil mixed with wastes and all other liquid hydrocarbons regardless of specific gravity and which are used as motor fuel, lubricating oil, or any oil used for heating or processing. The term ‘oil’ shall not include natural gas, liquified petroleum gas or synthetic natural gas regardless of derivation or source.”

C-34. RSA 146-A:3 specifies, among other things, that “[t]he discharge or spillage of oil into the surface water or groundwater of this state, or in a land area where the oil will ultimately seep into surface water or groundwater is prohibited.”

C-35. Env-Wq 1703.11 titled “Turbidity” states the following:

- “(a) Class A waters shall contain no turbidity, unless naturally occurring.
- (b) Class B waters shall not exceed naturally occurring conditions by more than 10 NTUs.
- (c) Turbidity in waters identified in RSA 485-A:8, III shall comply with the applicable long-term combined sewer overflow plan prepared in accordance with Env-Wq 1703.05(c).
- (d) For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge, a violation of the turbidity standard shall be deemed to have occurred.”

C-36. Env-Wq 1703.19 titled “Biological and Aquatic Community Integrity” states the following:

- “(a) All 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.
- (b) Differences from naturally-occurring conditions shall be limited to non-detrimental differences in community structure and function.”

C-37. Env-Wq 1703.21 titled “Water Quality Criteria for Toxic Substances” states the following:

- “(a) Unless naturally occurring or allowed under part Env-Wq 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that:
 - (1) Injure or are inimical to plants, animals, humans or aquatic life; or
 - (2) Persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in:
 - a. Edible portions of fish, shellfish, or other aquatic life; or
 - b. Wildlife that might consume aquatic life.”

C-38. Env-Wq 1707.01 titled “Designation of Mixing Zones” states the following:

- “(a) Because RSA 485-A:8, I prohibits the discharge of any sewage or other wastes into class A waters, mixing zones shall be prohibited in such waters.
- (b) For class B waters, the department shall designate a limited area or volume of the surface water as a mixing zone if the applicant provides sufficient scientifically valid documentation to allow the department to independently determine that all criteria in Env-Wq 1707.02 have been met.”

C-39. Env-Wq 1707.02 titled “Criteria for Approval of Mixing Zones” states the following:

“ The department shall not approve a mixing zone unless the proposed mixing zone:

- (a) Meets the criteria in Env-Wq 1703.03(c)(1);
- (b) Does not interfere with biological communities or populations of indigenous species;
- (c) Does not result in the accumulation of pollutants in the sediments or biota;
- (d) Allows a zone of passage for swimming and drifting organisms;
- (e) Does not interfere with existing and designated uses of the surface water;
- (f) Does not impinge upon spawning grounds or nursery areas, or both, of any indigenous aquatic species;
- (g) Does not result in the mortality of any plants, animals, humans, or aquatic life within the mixing zone;
- (h) Does not exceed the chronic toxicity value of 1.0 TUc at the mixing zone boundary; and
- (i) Does not result in an overlap with another mixing zone.”

C-40. Antidegradation provisions are included in Env-Wq 1702 and Env-Wq 1708.

- a. Env-Wq 1702.03 defines “antidegradation” as “a provision of the water quality standards that maintains and protects existing water quality and uses.”
- b. Env-Wq 1708.02 states that “Antidegradation shall apply to: (a) Any proposed new or increased activity, including point source and nonpoint source discharges of pollutants, that would lower water quality or adversely affect the existing or designated uses; (b) Any proposed increase in loadings to a waterbody when the proposal is associated with existing activities; (c) Any increase in flow alteration over an existing alteration; and (d) Any hydrologic modifications, such as dam construction and water withdrawals.”
- c. Antidegradation applies to all parameters as evidenced by Env-Wq 1708.08 (Assessing Waterbodies) which states “The applicant shall characterize the existing water quality and determine if there is remaining assimilative capacity for each parameter in question.”
- d. According to Env-Wq 1708.03 (b), “A proposed discharge or activity shall not eliminate any existing uses or the water quality needed to maintain and protect those uses.”
- e. Env-Wq 1702.04 states that ““Assimilative capacity” means the amount of a pollutant or combination of pollutants that can safely be released to a waterbody without causing violations of applicable water quality criteria or negatively impacting uses.”
- f. Env-Wq 1708.08 describes the process for assessing waterbodies to determine if there is remaining assimilative capacity for each parameter in question.
- g. Env-Wq 1708.09 titled “Significant or Insignificant Determination” states the following: “(a) Any discharge or activity that is projected to use 20% or more of the remaining assimilative capacity for a water quality parameter, in terms of either concentration or mass of pollutants, or volume or flow rate for water quantity, shall be considered a significant lowering of water quality. (b) The department shall not approve a discharge or activity that will cause a significant lowering of water quality unless the applicant demonstrates, in accordance with Env-Wq 1708.10, that the proposed lowering of water quality is necessary to achieve important economic or social development in the area where the waterbody is located. (c) [...] any applicant proposing an activity that will cause an insignificant lowering of water quality shall not be required to demonstrate that the activity is necessary to

provide important economic or social development, provided the applicant implements best management practices to minimize degradation.”

- h. Env-Wq 1708.01(b)(1), in general, states that: For significant changes in water quality, where the quality of the surface waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected unless the department finds, after full satisfaction of the intergovernmental coordination and public participation provisions and the analysis required by Env-Wq 1708.10, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the surface waters are located. In allowing such degradation or lower water quality, the department shall ensure water quality adequate to fully protect existing uses. Further, the department shall ensure that the highest statutory and regulatory requirements shall be achieved for all new and existing point sources and that all cost effective and reasonable best management practices for nonpoint source control shall be implemented.
- i. Env-Wq 1708.01(b)(2) states the following: “The department shall not approve any proposed discharge or activity that might cause degradation or lower water quality, without such conditions as are necessary to ensure that: a. Water quality will be adequate to protect existing uses; b. The highest statutory and regulatory requirements will be achieved for all new and existing point sources; and c. All cost effective and reasonable best management practices for nonpoint source control will be implemented.”

C-41. Env-Wq 1708.04 titled “Protection of Water Quality in ORW” states the following:

- “(a) Surface waters of national forests and surface waters designated as natural under NH RSA 483:7-a, I, shall be considered outstanding resource waters (ORW).
- (b) Subject to (c), below, water quality shall be maintained and protected in surface waters that constitute ORW.
- (c) The department shall allow a limited point or nonpoint source discharge to an ORW only if:
 - (1) The discharge will result in no more than temporary and short-term changes in water quality, wherein “temporary and short-term” means that degradation is limited to the shortest possible time;
 - (2) The discharge will not permanently degrade water quality or result at any time in water quality lower than that necessary to protect the existing and designated uses in the ORW; and
 - (3) All practical means of minimizing water quality degradation are implemented.”

C-42. Env-Wq 1708.06 titled “Protection of Water Quality in High Quality Waters” states the following:

- “(a) Subject to (b) through (d) below, high quality waters shall be maintained and protected.
- (b) The department shall evaluate and authorize insignificant changes in water quality as specified in Env-Wq 1708.09.
- (c) The department shall allow degradation of significant increments of water quality, as determined in accordance with Env-Wq 1708.09, in high quality waters only if the applicant can demonstrate to the department, in accordance with Env-Wq 1708.10, that allowing the water quality degradation is necessary to accommodate important economic or social development in the area in which the receiving water is located.
- (d) If the waterbody is Class A Water, the requirements of Env-Wq 1708.05 shall also apply.”

C-43. The Atlantic Ocean in the vicinity of the Project is Class B (NH Chapter Law 1967, 311:1, LX).

C-44. A “Designated River” is a river that is managed and protected for its outstanding natural and cultural

resources in accordance with the Rivers Management and Protection Act (RSA 483).

- C-45. 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 Total Maximum Daily Load (TMDL) for the pollutants causing impairment. For these water quality-impaired waters, states must establish TMDLs for the pollutants causing the impairments and submit the list of impaired surface waters and TMDLs to the U.S. Environmental Protection Agency (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 Section 303(d) list of impaired waters approved by EPA is the [2020/2022 Section 303\(d\) List](#). A list of all impaired waters is available through the [NHDES website](#).
- C-46. 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 should be avoided as indicated in the following regulation and statute:

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.”

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.”

State 401 Certification Application and Other Documents

- C-47. *Water Quality Certification Application:* On November 19, 2021, NHDES received the Application for § 401 Water Quality Certification for the Project. The Application included a cover letter, a complete NHDES Application form, and a copy of a draft EA for the Project that included a draft Finding of No Significant Impact, and an eelgrass DAMP. The record for this Certification decision includes the information provided in the Application and the references in this Certification.
- C-48. *Natural Resource Agencies:* Natural Resource Agencies include, but are not limited to, NHDES, NHFGD, NMFS of the NOAA, as defined in footnote 6.
- C-49. On December 22, 2021, NOAA submitted comments for the Project to the U.S. Army Corps of Engineers.
- C-50. *Section 404 Public Notice:* On December 28, 2021, The U.S. Army Corps of Engineers issued a 30-Day Public Notice for the Project. The comment period for the public notice closed on January 31, 2022 (see Fact C-11).

⁶ NHDES means New Hampshire Department of Environmental Services; NHFGD means New Hampshire Fish and Game Department; NMFS means National Marine Fisheries Service of the National Oceanic and Atmospheric Administration (NOAA).

- C-51. On January 11, 2022, NHFGD informed NHDES by email that it supported the comments and recommendations that NOAA submitted to the Applicant for the Project on December 22, 2021, and would support any comments or recommendations that NOAA may provide to the Applicant regarding marine mammals during consultation required under Section 7 of the Endangered Species Act of 1973.
- C-52. On January 13, 2022, the New Hampshire Coastal Program (NHCP) of NHDES issued a letter to notify the U.S. Army Corps of Engineers that NHCP determined that the Project, as proposed, complies with the enforceable policies of New Hampshire's federal approved coastal management program. NHCP's decision was based on certain conditions (see Fact C-9 and Finding D-26).
- C-53. On March 3, 2022 the Applicant informed NHDES that construction of the Project would occur from April 1 to November of years in which funding is available for the Project.
- C-54. On March 31, 2022 the Applicant informed NHDES that it anticipated starting construction of the Project in April 2023.
- C-55. *401 Certification Public Comment Period:* NHDES issued a draft section 401 Water Quality Certification for public comment from March 4, 2022 to 4 p.m. on April 6, 2022. NHDES did not receive comments.

D. FINDINGS

- D-1. The Applicant submitted an Application to NHDES for a § 401 Water Quality Certification for the Project. The Application included a cover letter, draft EA, and DAMP (see Introduction A and Fact C-47).
- D-2. *Applicant's Proposal:* The Project will restore three breakwaters in the Atlantic Ocean that sustained significant damage during the winter storms of 2015 and 2018 to their previous dimensions in order to return full functionality of the structures. Of the three breakwaters comprising the Project, two are located entirely in Maine, while the third extends from Cedar Island in Kittery, Maine to Star Island in Rye, New Hampshire, is approximately 800 feet long, and is split by the border between the two states. The breakwaters were initially built between approximately 1800 and 1913, and maintenance of the breakwaters was conducted in 1821, 1904, and 1974. Repairs to the three breakwaters will involve a combination of recovery and resetting of existing stone and delivery and placement of new armor stone. Each of the three breakwaters will be restored to a top elevation of +15.5 feet at mean lower low water, with a 20-foot top width, and slopes of 1:1.5 seaward and 1:1 leeward. Fencing will be placed on the west end of the Star Island section of the breakwater to discourage public access. The Project's temporary impacts in New Hampshire will include the placement of large stone over approximately 5,100 square feet, 170 feet long by 30 feet wide, to provide a temporary ramp to access Star Island. Approximately 3,500 square feet of that ramp will be placed in an unvegetated, intertidal area. That temporary stone will be removed following completion of the Project. All repairs for the Project will be conducted from land-based equipment or by a jack-up barge, if needed. The Applicant expects that the Project will take approximately seven months to complete. The draft EA and DAMP (see Introduction A and Fact C-47) submitted with the Application include additional information on the potential environmental impacts, which are summarized in Findings D-16 through D-23, and D-27.

CWA Section 401 WQC Required

- D-3. The Atlantic Ocean where the Project will be located is a water of the United States (see Facts C-6 and C-7).

- D-4. The Atlantic Ocean where the Project will be located is a surface water of the state (see Fact C-16).
- D-5. The Project will include temporary and permanent discharges of fill to waters of the United States and surface waters of the state (see Facts C-4 and C-5 and Finding D-2).
- D-6. Because the Project will involve discharges of fill to waters of the United States and surface waters of New Hampshire, and because the U.S. Army Corps of Engineers is required to request a 401 Certification under 33 CFR §338.2(c), citing 33 CFR §336.1(b)(8), a 401 Certification is required from New Hampshire, (see Facts C-1, C-3, C-8, C-10, and C-12; and Findings D-1, D-3, D-4, and D-5).
- D-7. NHDES is the authority (aka certifying authority) responsible for issuing 401 Certifications in New Hampshire (see Fact C-12).

State Authority for Certification Conditions, Modifications and Monitoring

- D-8. RSA 485-A:12, III (see Fact C-12) states the following: “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.” Monitoring includes, but is not limited to, the following:
- Monitoring to determine compliance with conditions in this certification;
 - On-site inspections;
 - Development, submission and implementation of monitoring plans;
 - Analysis, preparation and submittal of reports summarizing monitoring results; and
 - Notifying appropriate authorities in a timely manner when excursions from conditions in this certification occur.

Potentially Affected Surface Waters

- D-9. NHDES has assigned Assessment Unit (AU) identification numbers to many, but not all, surface water waters in New Hampshire, with many surface waters divided into smaller segments based on their characteristics. The AU of the Atlantic Ocean that will be impacted by the Project is NHO CN00000000-09.
- D-10. New Hampshire surface water quality standards are summarized in Facts C-13 through C-42 and apply to all New Hampshire surface waters as defined in Fact C-16, including the potentially affected surface water identified in Finding D-9.
- D-11. The surface waters potentially affected by the Project (Finding D-9) are classified as Class B (see Facts C-29 and C-43).
- D-12. The goal of Class B surface waters is to support the designated uses defined in Env-Wq 1702.17, which include swimming and recreation in and on the water, fish consumption, shellfish consumption (for tidal waters), aquatic life integrity, wildlife, and after adequate treatment as a water supply. Designated uses apply “...whether or not such uses are presently occurring” (Env-Wq 1702.17 –see Fact C-21).
- D-13. The Project is not within ¼ mile of a Designated River under the Designated Rivers Program (RSA 483, see Fact C-44). As such, the Project is not within the jurisdiction of the Designated Rivers Program.

- D-14. The surface water in the vicinity of the Project is not an Outstanding Resource Water (Env-Wq 1708.04, see Fact C-41).

Water Chemistry

- D-15. *Current surface water quality assessment:* According to the 2020/2022 305(b)/303(d) lists of impaired waters (Fact C-45), the Atlantic Ocean in the vicinity of the proposed Project is listed as marginally impaired for the fish consumption and shellfish consumption designated uses due to levels of mercury and polychlorinated biphenyls found in fish and shellfish tissue, marginally impaired for shellfish consumption for dioxin (including 2,3,7,8-Tetrachlorodibenzo-p-dioxin) due to levels found in shellfish tissue, and is potentially not supporting shellfish consumption due to fecal coliform levels measured in the surface water.

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 should be avoided (see Fact C-46). NHDES does not anticipate the Project will cause a discharge of mercury, polychlorinated biphenyls, or dioxin to surface waters.

Potential Impacts of the Project to Water Quality Standards

- D-16. *Turbidity:* In its draft EA (see Fact C-47 and Finding D-1), the Applicant stated that mechanically placing and repositioning stones from sections of the breakwaters, and from creating a temporary ramp, may cause a temporary resuspension of sandy sediments in the immediate vicinity of the Project during construction. This may result in short-term elevated water column turbidities directly adjacent to the construction activities. Applicable turbidity criteria for the protection of the aquatic life integrity designated use (see Fact C-21) are provided in Env-Wq 1703.11 (d) (see Fact C-35) and criteria for visible plumes that can be caused by turbidity are provided in Env-Wq 1703(c) (see Fact C-30) and Env-Wq 1703.12 (see Fact C-32). New Hampshire surface water quality standards also allow for mixing zones in Class B waters provided the minimum criteria in Env-Wq 1707.02 are met (see Facts C-24, C-38, and C-39). Increased suspended sediment levels caused by construction of the Project are expected to decrease rapidly with distance from the work area because the sediment material that will likely be impacted is sand and shell hash, which settle relatively quickly.

Conditions E-9 and E-10 will help ensure that Project construction activities will comply with New Hampshire surface water quality standards (see Finding D-10), including, but not limited to, criteria for turbidity (see Fact C-35) and visible plumes (see Facts C-30 and C-32) which help protect the aquatic life integrity designated use (see Fact C-21).

- D-17. *Eelgrass (*Zostera marina*):* In its draft EA (see Fact C-47 see Finding D-1), the Applicant identified eelgrass beds immediately adjacent to the northwestern side of the breakwater that adjoins Star Island and Cedar Island. The Applicant stated that a majority of the construction of that breakwater will occur on the breakwater, which will not impact eelgrass. However, a jack-up/deck barge that measures 90 feet long by 40 feet wide, and associated anchoring spuds, may be required to access the shallow waters adjacent to the Star-Cedar breakwater. In the DAMP, the Applicant stated that there would be four anchoring spuds, each with an approximate footprint of 50 square feet, to hold a barge in place, and the barge would be repositioned along the length of the breakwater approximately every 3 to 4 days. The Applicant anticipates that the barge could be repositioned approximately 10 times during the Project, having the potential to impact 2,000 square feet of eelgrass habitat.

Studies have demonstrated that decreased light exposure caused by shading can reduce eelgrass growth and negatively affect other physiological properties of eelgrass.^{7,8}

Conditions E-9 through E-12 will help ensure eelgrass impacts are minimized and that Project construction activities comply with criteria to protect the aquatic life integrity designated use of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10), which includes, but is not limited to, criteria for “Biological and Aquatic Community Integrity” (see Fact C-36).

- D-18. *Essential Fish Habitat*: In its draft EA (see Fact C-47 see Finding D-1), the Applicant stated that the Project will impact Essential Fish Habitat (EFH) by causing displacement of organisms, increases to turbidity, noise impacts, and the mortality of intertidal benthic resources in areas where temporary access ramps will be built (see Finding D-2), including eelgrass that may be impacted by a barge’s anchoring spuds (see Finding D-17). The Applicant stated that these impacts will be temporary, highly localized, and not significant or minimal. The functions of the breakwater structure as habitat will return following construction activities. The Applicant provided EFH designations for the following species in the Project area (“*” indicates species with defined EFH in the Project area): Acadian redfish (*Sebastes fasciatus*); American plaice (*Hippoglossoides platessoides*); Atlantic butterfish (*Peprilus triacanthus*); Atlantic cod* (*Gadus morhua*); Atlantic herring (*Clupea harengus*); Atlantic mackerel (*Scomber scombrus*); Atlantic sea scallop (*Placopecten magellanicus*); Atlantic wolfish (*Anarhichas lupus*); bluefin tuna (*Thunnus thynnus*); common thresher shark (*Alopias vulpinus*); haddock (*Melanogrammus aeglefinus*); longfin inshore squid (*Dorytheuthis pealeii*); monkfish (*Lophius americanus*); northern shortfin squid (*Illex illecebrosus*); ocean pout* (*Zoarces americanus*); ocean quahog (*Arctica islandica*); pollock* (*Pollachius virens*); porbeagle shark (*Lamna nasus*); red hake* (*Urophycis chuss*); silver hake (*Merluccius billnearies*); spiny dogfish (*Squalus acanthias*); thorny skate (*Amblyraja radiata*); white hake* (*Urophycis tenuis*); winter flounder* (*Pseudopleuronectes americanus*); winter skate (*Leucoraja ocellata*); witch flounder (*Glyptocephalus cynoglossus*); and yellowtail flounder (*Pleuronectes ferruginea*).

Conditions E-9 through E-12 will help ensure EFH is protected and that Project construction activities comply with criteria to protect the aquatic life integrity designated use of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10), which includes, but is not limited to, criteria for “Biological and Aquatic Community Integrity” (see Fact C-36).

- D-19. *Wildlife*: In its draft EA (see Fact C-47 see Finding D-1), the Applicant stated that harbor seals (*Phoca vitulina vitulina*) and gray seals (*Halichoerus grypus atlantica*) may be found in the Project area, but should be able to avoid areas of disturbance of the Project cause by equipment and rock placement or repositioning. The Applicant stated that the breakwater of the Project and the immediate surrounding waters do not support suitable nesting habitat for bird species. Although resting and foraging habitat may be temporarily impacted by the Project, and species may be temporarily displaced, suitable resting and foraging habitat exists adjacent to the Project area. The Applicant listed the following bird species that may utilize the Project area for resting and foraging: arctic tern (*Sterna paradisaea*); Atlantic puffin (*Fratercula arctica*); black guillemot (*Cepphus grille*); black scoter (*Melanitta nigra*); black-legged kittiwake (*Rissa tridactyla*); bonaparte’s gull (*Chroicocephalus Philadelphia*); common eider (*Somateria mollissima*); common loon (*Gavia immer*); common tern (*Sterna hirundo*); Cory’s shearwater (*Calonectris Diomedea*); double-crested cormorant (*Phalacrocorax auratus*); dovekie (*Alle*); great black-backed gull

⁷ David M. Burdick and Frederick T. Short, “[The Effects of Boat Docks on Eelgrass Beds in Coastal Waters of Massachusetts](#),” *Environmental Management* 23:2 (1999): 231-240.

⁸ Chiara M. Bertelli and Richard K. F. Unsworth, “[Light Stress Responses by the Eelgrass, *Zostera marina* \(L\)](#),” *Frontiers in Environmental Science* 6:39, Accessed February 25, 2022. doi: 10.3389/fenvs.2018.00039

(*Larus marinus*); great shearwater (*Puffinus gravis*); herring gull (*Larus argentatus*); leach's storm-petrel (*Oceanodroma leucorhoa*); least tern (*Sterna antillarum*); long-tailed duck (*Clangula hyemalis*); manx shearwater (*Puffinus puffinus*); northern gannet (*Morus bassanus*); northern fulmar (*Fulmarus glacialis*); parasitic jaeger (*Stercorarius parasiticus*); razorbill (*Alca torda*); red-breasted merganser (*Mergus serrator*); red-necked phalarope (*Phalaropus lobatus*); red-throated loon (*Gavia stellate*); ring-billed gull (*Larus delawarensis*); roseate tern (*Sterna dougallii*); royal tern (*Thalasseus maximus*); surf scoter (*Melanitta perspicillata*); thick-billed murre (*Uria lomvia*); white-winged scoter (*Melanitta fusca*); and Wilson's storm-petrel (*Oceanites oceanicus*).

Conditions E-9 and E-10 will help ensure that wildlife that is dependent on the aquatic resource is protected and that Project construction activities will comply with the wildlife designated use of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10)

- D-20. *Threatened and Endangered Species*: In its draft EA (see Fact C-47 see Finding D-1), the Applicant listed the following threatened or endangered species⁹ that could occur in the vicinity of the Project area: green sea turtle (*Chelonia mydas*); Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*); northern long-eared bat (*Myotis septentrionalis*); red knot (*Calidris canutus rufa*); kemp's ridley sea turtle (*Lepidochelys kempii*); leatherback sea turtle (*Dermochelys coriacea*); loggerhead sea turtle (*Caretta caretta*); North Atlantic right whale (*Eubalaena glacialis*); fin whale (*Balaenoptera physalus*); shortnose sturgeon (*Acipenser brevirostrum*); and roseate tern (*Sterna dougallii dougallii*). Impacts to those species could be displacement caused by Project construction, including displacement resulting from temporarily increased noise levels, which may result in avoidance of the Project area. The Applicant stated that because the Project's construction equipment will be stationary, it is unlikely the equipment will strike marine species, and that temporary increases to turbidity (see Finding D-16) will have limited to no effect on the species because the Applicant expects disturbed sand and shell hash to settle rapidly.

Conditions E-9 and E-10 will help ensure that federal and state threatened and endangered species are protected and that Project construction activities comply with criteria to protect the aquatic life integrity and wildlife designated uses of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10), which includes, but is not limited to, criteria for "Biological and Aquatic Community Integrity" (see Fact C-36).

- D-21. *Benthic Community and Shellfish*: In its draft EA (see Fact C-47 see Finding D-1), the Applicant stated that benthic and shellfish resources will be minimally impacted by turbidity (see Finding D-16) during Project construction, and could suffer mortality by the installation of temporary ramps of the Project (see Finding D-2). However, no significant shellfish beds are known to occur around the breakwaters. As ramps are removed following construction, benthic and shellfish resources are expected to return to pre-construction conditions.

Conditions E-9 and E-10 will help ensure that the benthic community is adequately protected and that Project construction activities comply with criteria to protect the aquatic life integrity designated use of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10), which includes, but is not limited to, criteria for "Biological and Aquatic Community Integrity" and "Benthic Deposits" (see Facts C-31 and C-36).

- D-22. *Macroalgae*: In its draft EA (see Fact C-47 see Finding D-1), the Applicant stated that it expects minor, temporary impacts to macroalgae in the Project area as armor stones are recovered and placed on the

⁹ As designated under the federal Endangered Species Act of 1973, 16 U.S.C. 1531 *et seq.*; or the New Hampshire Endangered Species Conservation Act of 1979, Title XVIII: Fish and Game, Chapter 212-A.

breakwaters, and during the constructions of temporary ramps (see Finding D-2). However, macroalgae is expected to recolonize the area and return to preconstruction conditions after completion of the Project.

Conditions E-9 and E-10 will help ensure that the macroalgae community is adequately protected and Project construction activities comply with criteria to protect the aquatic life integrity designated use of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10), which includes, but is not limited to, criteria for “Biological and Aquatic Community Integrity” (see Fact C-36).

D-23. *Actions Taken to Minimize Adverse Impacts:* In its draft EA (see Fact C-47 see Finding D-1), the Applicant stated the following actions, among others, will be taken to minimize impacts from the Project:

- The contractor will be required to accommodate vessel traffic during construction operations;
- Contractors will be responsible for complying with any special conditions and/or stipulations incorporated into the appropriate permits;
- The contractor will be provided location of eelgrass resources so construction and support vessels can avoid impacts to eelgrass. No anchoring will be allowed in the eelgrass beds. Should a jack-up barge be required to access the Star-Cedar structure and spud in the eelgrass beds, a DAMP has been developed; and
- Temporary ramps composed of large stone will be placed in intertidal areas of the islands to allow for construction equipment to access the breakwaters. All ramps will be removed following the breakwater repair.

Condition E-9 includes the actions in this Finding to help ensure that Project construction activities comply with the swimming and other recreation in and on the water designated use (which includes boating) and criteria to protect the aquatic life integrity designated use of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10), which includes, but is not limited to, criteria for “Biological and Aquatic Community Integrity” (see Fact C-36).

D-24. *Antidegradation:* Given that implementation of the Project is short-term (i.e., estimated to take approximately seven months), the Project involves repair of an existing breakwater, and the area of surface water and sediment impacted is very small relative to the total area of the resource in the area, NHDES finds that the Project is “insignificant” in accordance with Env-Wq 1708.09(c) (See Fact C-40g). For insignificant determinations, Env-Wq 1708.01(b)(2)c. prohibits NHDES from approving “any proposed discharge or activity that might cause degradation or lower water quality, without such conditions as are necessary to ensure that:[...] All cost effective and reasonable best management practices for nonpoint source control will be implemented” (See Fact C-40i). Best management practices are defined in Env-Wq 1702.07 (see Fact C-19).

Pending information to suggest otherwise, the best management practices that are necessary to satisfy the conditions in section E of this certification are expected to be sufficient to satisfy the definition of best management practices (see Fact C-19).

Comments from Regulatory Agencies

D-25. In its letter (see Fact C-49), NOAA informed the Applicant of the following, among other things:

- The U.S. Environmental Protection Agency has designated submerged aquatic vegetation, including eelgrass (see Finding D-17), as “special aquatic sites” under the CWA;
- Winter flounder eggs are sensitive to sedimentation effects. NOAA also informed the Applicant that care should be taken to avoid and minimize permanent conversion of intertidal and

inshore subtidal mixed sand, gravel, cobble, and boulder habitats, given their importance as juvenile Atlantic cod Habitat Area of Particular Concern, and other species in the Project area (see Finding D-18);

- Distinct and further consultation of EFH must be reinitiated if new information becomes available or the Project is revised in such a manner that affects the basis for NOAA's recommendations in its letter; and
- Consultation with NOAA pursuant to section 7 of the Endangered Species Act of 1973 is required.

NOAA recommended the following in its letter:

- Land based construction activities be utilized when applicable and jack-up barge activities in eelgrass beds should be limited to minimize impacts to eelgrass beds adjacent to the Star-Cedar breakwater;
- Eelgrass surveys should be conducted in the same season, for direct comparison of results;
- All temporary construction areas should be returned to pre-construction conditions and temporary ramps should be completely removed; and
- No greater than minimal sedimentation or turbidity producing repair or stone recovery activities should occur below mean high water from March 15 to June 30 to protect winter flounder early life stages. If this time of year restriction is not feasible, work between March 15 to June 30 should take place in the dry when the tide is waterward of the work site or behind turbidity controls.

NHFGD concurs with this Finding (see Fact C-51).

Conditions E-7, E-9 and E-11 include the recommendations in this Finding to help ensure that Project construction activities will comply with New Hampshire surface water quality standards (see Finding D-10), and with criteria to protect the aquatic life integrity designated use, which includes, but is not limited to, criteria for "Biological and Aquatic Community Integrity" (see Facts C-21 and C-36).

D-26. In its letter (see Fact C-52), NHCP of NHDES informed the Applicant that it found that the Project complies with the enforceable policies of New Hampshire's federally approved coastal management program, based on the following conditions:

- Land based construction activities be utilized when applicable and jack-up barge activities in eelgrass beds should be limited to minimize impacts to eelgrass beds adjacent to the Star-Cedar breakwater;
- Eelgrass surveys should be conducted in the same season, for direct comparison of results;
- All temporary construction areas should be returned to pre-construction conditions and temporary ramps should be completely removed. This work should occur as soon as possible after the completion of the breakwater construction;
- White Island and Seavey Island shall not be used for staging of equipment or for other Project-related purposes;
- Any trash associated with the Project shall be properly contained so as not to attract predatory gulls;
- No greater than minimal sedimentation or turbidity producing repair or stone recovery activities should occur below mean high water from March 15 to June 30 to protect winter flounder early life stages. If this time of year restriction is not feasible, work between March 15 to June 30 should take place in the dry when the tide is waterward of the work site or behind turbidity controls.
- The Army Corps of Engineers shall obtain a Clean Water Act Section 401 Water Quality

Certification from the NHDES.

Conditions E-9 includes the conditions in this Finding to help ensure that Project construction activities will comply with criteria to protect the aquatic life integrity designated use of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10), which includes, but is not limited to, criteria for “Biological and Aquatic Community Integrity” (see Fact C-36).

Eelgrass Monitoring and Mitigation

D-27. *Eelgrass Monitoring During Construction:* With the Application, the Applicant included an eelgrass DAMP (see Findings D-1 and D-2), which details the Applicant’s proposed efforts to, among other things, monitor the placement of anchoring spuds of a jack-up barge in the eelgrass beds during construction, survey the eelgrass beds following construction to assess damage, and provide mitigation should damage to eelgrass be documented (see Finding D-2 and D-17). In October of 2020, the Applicant conducted a survey to identify submerged aquatic vegetation, including eelgrass, in the Project area to provide baseline data to aid in the minimization of any detrimental effects to the eelgrass from the proposed action. The Applicant stated that it would provide for a second pre-construction survey in April. The Applicant will provide the contractor for the Project maps generated by the Applicant’s surveys, and will be directed to avoid anchoring in the eelgrass beds. The Applicant will provide for a post-construction video survey in the summer months following completion of all construction activities to assess impacts to the beds. If it is determined that the Project has caused a loss of eelgrass in the Project area, a mitigation effort would be undertaken, which would involve transplanting live whole plants from donor beds or seeds within the impacted areas or providing funds to New Hampshire’s in lieu fee program based on the square footage of the actual area impacted by the Project. For in-kind mitigation, the Applicant would provide for a test harvest and transplant effort to evaluate the effectiveness of the proposed methodology, followed by full mitigation. Within one month following the initial planting effort, provide for monitoring of transplanted eelgrass to evaluate shoot density, canopy height, percent cover, areal extent, fish and invertebrate use, water quality (i.e., light, temperature, and salinity), and sediment type. The Applicant stated it would submit annual reports to agencies by December 31 after the initial planting, as well as for each year, for five years, following planting, to summarize conclusions of monitoring data. An overall, final report would be generated to summarize and document all mitigation efforts.

Conditions E-11 includes the conditions in this Finding to help ensure that Project construction activities will comply with criteria to protect the aquatic life integrity designated use of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10), which includes, but is not limited to, criteria for “Biological and Aquatic Community Integrity” (see Fact C-36).

Notification Procedure Plan

D-28. The Applicant should develop a notification procedure plan that outlines the reporting process to NHDES for incidents related to the Project that may adversely impact surrounding resource areas beyond those temporary impacts described in the Application (see Finding D-1). Examples include observed dead or distressed fish or other aquatic organisms, loss or damage to eelgrass beyond that discussed in the EA (see Finding D-17), sediment spills outside of the approved disposal area, observed oily sheens on the water surface, turbidity plumes observed beyond deployed best management practices or beyond the immediate vicinity of Project construction activities, and accidental spills associated with equipment failure. If at any time during implementation of the Project an incident creates environmental impacts such as those listed above, all site related activities impacting the water should cease until the source of the problem is identified and adequate mitigating measures are employed.

Condition E-10 addresses this Finding as it will help ensure that Project construction activities comply with criteria to protect the aquatic life integrity designated use of the New Hampshire surface water quality standards (see Fact C-21 and Finding D-10) , which includes, but is not limited to, criteria for “Biological and Aquatic Community Integrity” (see Fact C-36).

E. CERTIFICATION CONDITIONS

Unless otherwise authorized or directed by NHDES, the following conditions shall apply:

E-1. **Effective Date and Expiration of Certification:** This Certification shall become effective on the date of issuance and shall remain effective during the duration of the Project, including mitigation requirements described under Conditions E-11 and E-12 of this Certification.

E-2. **Compliance with Water Quality Standards:** The Project shall not cause or contribute to a violation of New Hampshire surface water quality standards.

(For an explanation and citations, see Facts C-12 through C-42, and C-46 and Findings D-10 through D-12.)

E-3. **Proposed Modifications to the Project:** The Applicant shall consult with and receive prior written approval from NHDES regarding any proposed modifications to the Project that could have a significant or material effect on the findings or conditions of this certification, including any changes to operation of the Project. If necessary, to ensure compliance with New Hampshire surface water quality standards and associated management objectives, NHDES may alter or amend this certification in accordance with condition E-4.

(For an explanation and citations, see Fact C-12 and Finding D-8.)

E-4. **Modification of Certification:** The conditions of this certification may be altered or amended at any time by NHDES to ensure compliance with New Hampshire surface water quality standards and associated management objectives, when authorized by law, and, if necessary, after notice and opportunity for hearing.

(For an explanation and citations, see Fact C-12 and Finding D-8.)

E-5. **Compliance Inspections:** In accordance with applicable laws, the Applicant shall allow NHDES to inspect the Project and affected surface water to monitor compliance with the conditions of this certification.

(For an explanation and citations, see Fact C-12 and Finding D-8.)

E-6. **Transfer of Certification:** Should this certification be transferred to a new owner, contact information for the new owner (including name, address, phone number and email) shall be provided to NHDES within 30 days of the transfer.

E-7. **EFH and ESA Consultation:** Unless otherwise authorized or directed by NOAA, the Applicant shall

- a. reinitiate distinct and further consultation with NOAA regarding EFH if new information

- becomes available, or the Project is revised in such a manner that affects the basis for NOAA's recommendations included in its letter of December 22, 2021; and
- b. consult with NOAA pursuant to section 7 of the Endangered Species Act (ESA) of 1973.

(For an explanation and citations, see Facts C-12 and C-49 and Findings D-8 and D-25.)

- E-8. **Notification to Natural Resource Agencies:** Unless otherwise authorized or directed by NHDES, the Applicant shall notify NHDES, NHFGD and NOAA via email at least 72 hours prior to when construction is scheduled to begin.

(For an explanation and citations, see Fact C-12 and C-48 and Finding D-8.)

- E-9. **Construction Activities:** Unless otherwise authorized or directed by NHDES in writing, the Applicant shall:

- a. implement the Project in accordance with information provided in the Application (see Fact C-47 see Finding D-1) including, but not limited to, implementation of the eelgrass DAMP;
- b. utilize land-based construction activities to the extent practicable and shall limit the use and repositioning of jack-up barge activities in eelgrass beds (see Findings D-17, D-25, and D-26) to avoid and minimize impacts to the benthic community in the Project area;
- c. not allow anchoring to occur in the eelgrass beds (see Finding D-23);
- d. ensure that construction activities do not interfere with vessel traffic (see Finding D-23);
- e. return all temporary construction areas to pre-construction conditions, and remove temporary ramps completely, as soon as possible after completion of construction (see Findings D-25 and D-26);
- f. ensure that no greater than minimal sedimentation or turbidity producing repair or stone recovery activities occur below mean high water from March 15 to June 30 to protect winter flounder early life stages and, if this time of year restriction is not feasible, work between March 15 to June 30 shall take place in the dry when the tide is waterward of the work site or behind turbidity controls (see Findings D-25 and D-26).
- g. not exceed turbidity criteria (see Fact C-35) or cause persistent visible plumes that extend beyond the immediate vicinity of the Project construction activities and shall implement best management practices to minimize turbidity associated with the Project to the maximum extent practicable (see Finding D-23);
- h. maintain daily records of visual observations and photographs, for submission to NHDES within 24 hours of receiving a request, of the area impacted by any visible plumes caused by Project construction activities, and, if directed by NHDES in writing because turbidity is considered excessive, submit a plan to NHDES for approval that describes how turbidity can be further reduced and monitored, and then implement the approved plan (see Finding D-8);
- i. not use White Island and Seavey Island for staging of equipment or for other Project-related purposes (see Finding D-26);
- j. properly contain any trash associated with the Project so as not to attract predatory gulls or result in litter in the surface water (see Fact C-30, C-32 and Finding D-26); and
- k. ensure there is no discharge of oil to surface waters from equipment used during the Project (see Facts C-30, C-32, C-33, and C-34).

(For an explanation and citations, see Facts C-12, C-30, C-32 through C-35, and C-47 and Findings D-1, D-8, D-16 through D-23, D-25 and D-26.)

- E-10. **Notification Procedure for Adverse Impacts:** At least 90 days prior to start of the Project, the Applicant shall submit a notification procedure outlining the reporting process to NHDES for incidents

related to the Project that may adversely impact surrounding resource areas and habitats including, but not limited to, observed dead or distressed fish or other aquatic organisms, loss or damage to eelgrass beyond that discussed in the draft EA (see Finding D-17), sediment spills outside of the approved disposal area, observed oily sheens on the water surface, turbidity plumes observed beyond deployed best management practices or beyond the immediate vicinity of Project construction activities, and accidental spills associated with equipment failure. If at any time during implementation of the Project an incident creates environmental impacts such as those listed above, all site related activities impacting the water shall cease until the source of the problem is identified and adequate mitigating measures are employed to the satisfaction of NHDES.

(For an explanation and citations, see Fact C-12 and Finding D-8, D-16 through D-22, and D-28)

E-11. Eelgrass Surveys, Mitigation, Monitoring, and Reporting: Unless otherwise authorized or directed by NHDES in writing, the Applicant shall:

- a. conduct eelgrass surveys, and, as necessary, in-kind mitigation, monitoring, and reporting as described in the DAMP (see Fact C-47 and Findings D-1 and D-27), as well as for eelgrass areas that would be shaded by jack-up barge activities to assess and mitigate, as necessary, impacts to eelgrass caused by shading (see Finding D-17);
- b. conduct pre- and post-construction eelgrass surveys in the same season for direct comparison of results (see Findings D-25 and D-26);
- c. submit annual reports to NHDES, NHFGD, and NOAA by December 31 after the initial planting, as well as for each year, for five years, following planting, to summarize conclusions of monitoring data;
- d. submit an overall, final report to NHDES, NHFGD, and NOAA to summarize and document all mitigation efforts, by June 31 of the year after the year the last annual report required under this condition is due to be submitted;
- e. respond in writing within 60 days to any comments NHDES, NHFGD, or NOAA provides the Applicant on any reports required under this condition; and
- f. comply with Condition E-12.

(For an explanation and citations, see Fact C-12 and Findings D-8, D-17, D-18 and D-27)

E-12. Alternative Mitigation: Unless otherwise authorized or directed by NHDES in writing, if the Applicant determines that in-kind mitigation is unfeasible (see Condition E-11), the Applicant shall do the following:

- a. Submit a report to NHDES, NHFGD, and NOAA to summarize and document all mitigation efforts at the Project area that includes a description of how the Applicant determined that in-kind mitigation is unfeasible.
- b. If, upon review of the report required under this condition, NHDES, NHFGD, or NOAA do not concur with the Applicant that in-kind mitigation is unfeasible, the Applicant shall once again implement Condition E-11 of this Certification.
- c. If, upon review of the report required under this condition, NHDES, NHFGD, and NOAA concur with the Applicant that in-kind mitigation is unfeasible, the Applicant shall, within sixty (60) days of being notified in writing of that concurrence, submit a report to NHDES for approval that evaluates other potential eelgrass mitigation alternatives separate from the DAMP (see Fact C-47 and Findings D-1 and D-2) . The report shall evaluate, provide details, and include a proposed implementation schedule for each of the following alternatives, and include the Applicant's recommended alternative mitigation plan:
 - i. Planting, annual monitoring (for at least five years) and annual reporting of monitoring results (by December 31 of each year that monitoring occurs) of eelgrass

- in other tidal waters of the state;
- ii. providing monetary compensation equivalent to compensatory amounts specified under Env-Wt 800 Compensatory Mitigation, to a New Hampshire university, agency, or other NHDES approved entity, for work related to eelgrass restoration, mapping, or monitoring in waters of the state; and
- iii. other alternatives identified by NHDES or the Applicant.

Upon NHDES' approval of the alternative eelgrass mitigation plan, the Applicant shall implement the approved plan.

(For an explanation and citations, see Fact C-12 and Findings D-8, D-17, D-18 and D-27)

F. ENFORCEMENT

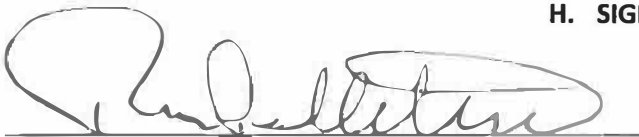
Certification conditions are subject to enforcement mechanisms available to the state of New Hampshire.

G. APPEAL PROCEDURE

Any person aggrieved by this decision may appeal to the N.H. Water Council ("Council"). An Environmental Fact Sheet with information on appealing a decision of the N.H. Department of Environmental Services can be found at the following link: [CO-7 \(nh.gov\)](#). A link to the Council's rules, is available on the [New Hampshire Environmental Council website](#) (or more directly at the [Water Council page](#)). Copies of the rules also are available from the NHDES Public Information Center at (603) 271-2975.

If you have questions regarding this certification, please contact James Tilley at (603) 271-0699 or james.tilley@des.nh.gov.

H. SIGNATURE & DATE



Rene J. Pelletier, P.G., Director
NHDES Water Division

4/13/22
Date

ec:

Todd Randall (USACE)	Ted Diers (NHDES)
Mark Habel (USACE)	Gregg Comstock (NHDES)
Joseph Mackay (USACE)	Chris Williams (NHDES)
Michael Dionne (NHFGD)	Chris Nash (NHDES)
Cheri Patterson (NHFGD)	Eben Lewis (NHDES)
Louis A. Chiarella (NOAA)	