

**Proposed Procedures and Criteria for Permitting Projects under a
Programmatic Determination of
Not Likely to Adversely Affect Select Listed Species or Critical Habitat for
NPDES Permits in
U.S. Environmental Protection Agency Region 1
(EPA NLAA Programmatic)**

The U.S. Environmental Protection Agency (EPA) Region 1 and NOAA Fisheries Greater Atlantic Regional Fisheries Office (GARFO) have jointly developed the NLAA Programmatic for NPDES Permits in U.S. EPA Region 1 (herein also referred to as the EPA NLAA Programmatic) standard operating procedures (SOPs) and project design criteria (PDC) for EPA-permitted projects to streamline section 7 consultation under the Endangered Species Act (ESA). EPA has determined that adoption of these SOPs and PDC by Region 1 (New England) ensure that future projects throughout the region are “not likely to adversely affect” (NLAA)¹ ESA-listed species or designated critical habitat (CH) within the geographic areas covered by Region 1. These SOPs and PDC are the basis for EPA’s request to GARFO for concurrence with the EPA NLAA Programmatic determination for the activity types described in this document. EPA will use the SOPs and PDC to screen all potentially applicable projects for this streamlined consultation process under the EPA NLAA Programmatic.

Procedural Overview

Following GARFO’s concurrence with the programmatic determination, the review process for project eligibility under the EPA NLAA Programmatic will be implemented as follows by both agencies.

Project Verification

1. EPA will review proposed projects to determine that a) the project is eligible for inclusion in the EPA NLAA Programmatic based on activity type and b) the project meets all applicable PDC, as laid out herein, ensuring the project is not likely to adversely affect ESA-listed species and designated critical habitat.
2. If EPA or GARFO determines that a project may affect ESA-listed species or critical habitat listed by NMFS under the ESA (per 50 CFR 402), but does not meet the PDC and other elements of the EPA NLAA Programmatic, or if there are species and/or critical habitat within the action area where effects cannot be adequately analyzed under the EPA NLAA Programmatic (i.e., scope of effects are too large), EPA will make an appropriate

¹ “Not likely to adversely affect” activities have effects that are insignificant (too small to be meaningfully measured or detected), discountable (extremely unlikely to occur), or wholly beneficial (contemporaneous positive effects without any adverse effects).

effects determination(s) and will initiate individual section 7 consultation (either formal or informal) with GARFO. Depending on the effects determination, individual consultation will conclude with a Letter of Concurrence or a Biological Opinion, as appropriate.

3. Once a project has been determined as eligible for the EPA NLAA Programmatic, EPA will complete a project verification form that provides the following information to GARFO in order to certify that every action “consulted” on under the EPA NLAA Programmatic is consistent with the PDC, SOPs, and other elements of the EPA NLAA Programmatic:
 - a. general project information (name of permittee, name of facility, permit number, date of draft permit publication),
 - b. activity type (facility type, permit type, facility activity type),
 - c. project location (coordinates of outfall(s), town/city and state, receiving waterbody),
 - d. brief description of the project and the action area² (surface area of the action area, total discharge volume(s), total water withdrawal volume(s)),
 - e. ESA-listed species and designated critical habitat in the action area, and
 - f. determination for how a specific project meets the appropriate EPA NLAA Programmatic PDC. Each determination will verify consistency with the effects analysis in the EPA NLAA Programmatic and allow for inclusion of projects that may meet the conditions and criteria of the EPA NLAA Programmatic with proper justifications, when appropriate.

EPA will provide the completed project verification form to GARFO at the time of public notice of the draft permit, allowing GARFO 30 days to respond. All verification forms should be sent to nmfs.gar.esa.section7@noaa.gov. If GARFO concurs, GARFO will respond within 30 days by signing the form and sending a copy to EPA. If GARFO does not concur, GARFO and EPA will work to bring the project into compliance with the EPA NLAA Programmatic, or an individual consultation may be necessary. Both agencies will keep a record of the completed project verification forms for annual monitoring purposes and to assess potential aggregate effects.

GARFO will make available to EPA the most recent Federal Register notices and other relevant documents. GARFO will also make available the most current information (i.e., ESA Section 7 Mapper³ and Species Tables⁴ available on GARFO’s website) pertaining to ESA-listed species’ location, distribution, timing, habitat requirements, in addition to critical habitat delineation and primary biological factors, so that the EPA NLAA Programmatic documents may be updated, as necessary.

Annual Monitoring

² Action area is defined as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action” (50CFR§402.02).

³<https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=a85c0313b68b44e0927b51928271422a>

⁴ <https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater>

1. EPA and GARFO will meet annually in January, and as needed throughout the year, to evaluate and discuss the continued effectiveness of the EPA NLAA Programmatic procedures and PDC for avoiding adverse effects to ESA-listed species and critical habitat. SOPs, PDC, and other relevant EPA NLAA Programmatic documents should be reviewed and updated in the annual meeting, if necessary.
2. The EPA NLAA Programmatic does not have an expiration date. EPA and GARFO may end the EPA NLAA Programmatic at any time or reinstate the EPA NLAA Programmatic if EPA or GARFO determines that it is not being implemented as intended, or new information requires reinstatement. For example, GARFO will revoke their programmatic concurrence if EPA fails to provide annual reports. GARFO may also revoke any programmatic concurrence provided for individual projects at any time if information is provided that supports such a revocation.
3. An annual report for the preceding year will be submitted by EPA to GARFO by November 30 to nmfs.gar.esa.section7@noaa.gov. Due to EPA's internal permit activity reporting schedule, annual reporting will start on October 1 through September 30 of each year. The annual report will consist of a spreadsheet identifying the following attributes for projects EPA permitted under the EPA NLAA Programmatic during the previous year:
 - a. permit number,
 - b. name of facility,
 - c. activity type (facility type, facility activity type),
 - d. project location (coordinates of outfall(s), receiving waterbody),
 - e. brief description of the action (e.g., surface area of the action area, discharge volumes, and/or dilution factor),
 - f. ESA-listed species and designated critical habitat in the action area, and
 - g. list of pollutants in facility discharge deemed to affect, but not adversely affect, ESA-listed.
4. If adaptive measures to this agreement are necessary, they will be considered during the annual meeting.

Description of the Action Area, Activity Types, and Stressor Categories

Action Area

The action area is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50CFR§402.02). The action area for the EPA NLAA Programmatic includes all aquatic habitats where NMFS ESA-listed species occur in New Hampshire and Massachusetts, including any critical habitat designated for those species. This includes, but is not limited to, coastal waters as well as tidal rivers and tributaries, specifically the Connecticut River, Taunton River, Merrimack River, and Piscataqua River, and their tributaries. PDC contain specific information regarding restrictions on location, activity type, and timing of projects eligible for inclusion under the EPA NLAA Programmatic.

Activity Types

A number of NPDES permit authorizations will be eligible for inclusion under the EPA NLAA Programmatic, including activities under:

1. General Permits (GPs), which include discharges from industrial sites, construction activities, and municipal stormwater systems, and
2. Individual Permits, which include stormwater, wastewater, or a combination of these discharges from individual facilities.

EPA and GARFO have determined that the activities authorized under the EPA NPDES permits listed above are categorized into four activity types that are not likely to adversely affect species listed by NMFS and are eligible for inclusion under the EPA NLAA Programmatic:

1. Tier 1: Municipal wastewater treatment facilities and/or stormwater outfalls with standard effluent (i.e., no additional toxic substances) and no cooling water intake structures (CWIS) or combined sewer overflows (CSOs),
2. Tier 2: Municipal wastewater treatment facilities and/or stormwater outfalls effluent that may contain additional toxic substances that are NLAA ESA-listed species, CWIS, and CSOs,
3. Tier 3: Industrial facilities with standard effluent and stormwater outfalls no CWIS or CSOs, and
4. Tier 4: Industrial facilities with non-standard effluent and stormwater outfalls that may contain CWIS, and/or CSOs.

Table 1: Description of Activity Types

Activity Type	Activity Type Details	Possible Effluent Constitutes	Justification Needed
Tier 1: Municipal WWTF / POTW & Stormwater Outfalls	1. standard effluent ⁵ (no additional toxic substances), 2. no cooling water intake structure (CWIS), and 3. no CSOs.	-biochemical oxygen demand (BOD5) -total suspended solids (TSS) -pH -oil and grease -fecal coliform/E.coli/Enterococcus -nitrogen/phosphorus	No, unless early life stages (ELS), spawning, or critical habitat (CH) are present. If the above are present, a justification for an NLAA determination is necessary.

⁵ Standard effluent is defined as facility discharge impacts to water quality of receiving waters from biochemical oxygen demand (BOD5), total suspended solids (TSS), oil and grease, pH, fecal coliform/E.coli/Enterococcus, nitrogen/phosphorus, temperature, and dissolved oxygen (DO).

Activity Type	Activity Type Details	Possible Effluent Constitutes	Justification Needed
		-temperature -dissolved oxygen (DO).	
Tier 2: Municipal WWTF / POTW & Stormwater Outfalls + additional stressors	1. non-standard effluent, 2. may contain CWIS with <2 million gallons per day (MGD) design intake with intake velocity <1 feet per second (fps), 3. may contain CSOs.	-Tier 1 effluent constituents, -may contain chlorine, heavy metals (e.g., copper, cadmium, lead, nickel), and/or other toxic substances.	Yes, justification necessary because a non- standard pollutant is present in the effluent. Must justify NLAA determination.
Tier 3: Industrial & Stormwater Outfalls	1. non-standard effluent, 2. no CWIS, and 3. no CSOs.	-Tier 1 & Tier 2 effluent constituents, -may contain industrial pollutants (e.g., benzene, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCBs), (volatile organic compounds) VOCs, formaldehyde, methyl tert- butyl ether (MTBE), hydrogen peroxide).	Yes, justification necessary because a non- standard pollutant is present in the effluent. Must justify NLAA determination.
Tier 4: Industrial & Stormwater Outfalls + additional stressors	1. non-standard effluent, 2. may contain CWIS with <2 MGD design intake and velocity <1 fps, 3. may contain CSOs.	-Tier 1 effluent constituents, -Tier 3 effluent constituents, -may also include heavy metals and/or other toxic substances.	Yes, justification necessary because a non- standard pollutant is present in the effluent. Must justify NLAA determination.

Stressor Categories

EPA and GARFO have determined that the activities listed in Table 1 may result in the following stressors on ESA-listed species and critical habitat:

Table 2: Stressor Categories by Activity Type

Activity Type	Stressor Category		
	Entrainment, Impingement, and Capture	Water Quality*	Habitat Modification
Tier 1	N	Y	Y
Tier 2	Y	Y	Y
Tier 3	N	Y	Y
Tier 4	Y	Y	Y

* Water quality sub-stressors are detailed in Table 3 and Table 4.

Water Quality

National and state-level water quality standards (i.e., Massachusetts Surface Water Quality Standards (314 CMR 4.00) and New Hampshire Water Quality Standards (Env-Wq 1703)) establish the minimum water quality criteria required for designated uses and to maintain existing water quality. Water quality standards use narrative or numeric water quality criteria to protect assigned designated uses for all waterbodies. The designated uses for waterbodies inform the narrative and numeric water quality criteria that will apply to a given waterbody. Narrative water quality criteria describe the desired condition to attain/maintain, while specifying the negative conditions to avoid in a waterbody. Numeric water quality criteria define the maximum allowable concentration of pollutants that may be discharged into a given waterbody. EPA establishes NPDES permit effluent limits (narrative and/or numeric), based on these criteria, when deemed necessary in order for a particular discharge to meet water quality standards, based on the receiving water body classification (Table 3 and Table 4). EPA will also establish NPDES permit effluent limits to meet narrative water quality criteria based on either:

1. Calculating numeric criterion for the pollutant in order to attain the applicable narrative water quality criteria and fully protect the designated use,
2. Using CWA § 304(a) recommended water quality criteria, or
3. Using an indicator parameter to define the effluent limit (EPA 2019).

When EPA uses chemical-specific numeric criteria to develop NPDES permit limits, acute and chronic aquatic life criteria and human health criteria are used to develop maximum allowable in-stream pollutant concentrations. In general, aquatic-life acute criteria are used to develop maximum daily limits and aquatic-life chronic criteria are used to develop average monthly limits (EPA 2019). Pollutants commonly found in NPDES effluent discharges and their water quality criteria are detailed in Table 3 and Table 4. Projects can be eligible for the NLAA Programmatic provided that they meet all of the PDCs listed below, or if there is proper justification for why emerging pollutants not included in Table 3 and Table 4 are NLAA ESA-listed species or critical habitat.

Table 3: Pollutant Categories and Water Quality Standards for Massachusetts

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Class C Criteria	Class SA Criteria	Class SB Criteria	Class SC Criteria
Biochemical Oxygen Demand (BOD5)	N/A	mass-based BOD5 limits are calculated based on the facility's design flow	N/A	N/A	N/A	N/A	N/A	N/A
Dissolved Oxygen (DO)	N/A	class-based criteria	cold water fisheries - not less than 6.0 milligrams per liter (mg/L) warm water fisheries - not less than 5.0 mg/L	cold water fisheries - not less than 6.0 mg/L warm water fisheries - not less than 5.0 mg/L	not be less than 5.0 mg/L at least 16 hours of any 24-hour period and never less than 3.0 mg/L	not be less than 6.0 mg/L	not be less than 5.0 mg/L	not be less than 5.0 mg/L at least 16 hours of any 24-hour period and never less than 4.0 mg/L
Total Suspended Solids (TSS)	waters are free from floating, suspended and settleable solids in concentrations that would impair any use assigned to this class, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oil and Grease	class A and SA - waters shall be free from oil and grease, petrochemicals and other volatile or synthetic organic	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Class C Criteria	Class SA Criteria	Class SB Criteria	Class SC Criteria
	pollutants. other classes- waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water							
pH	N/A	class-based criteria	6.5 through 8.3 standard units (SU), but not more than 0.5 SU outside of the natural range	6.5 through 8.3 SU, but not more than 0.5 SU outside of the natural range	6.5 through 9.0 SU and not more than 1.0 SU outside of the natural range	6.5 through 8.5 SU and not more than 0.2 SU outside of the natural range	6.5 through 8.5 SU and not more than 0.2 SU outside of the natural range	6.5 through 9.0 SU and not more than 0.5 SU outside of the natural background range
Total Residual Chlorine	N/A	acute freshwater criterion maximum concentration (CMC)- 19 micrograms per liter (µg/L) chronic freshwater criterion continuous concentration (CCC)- 11 µg/L acute marine CMC- 13 µg/L chronic marine CCC - 7.5 µg/L	N/A	N/A	N/A	N/A	N/A	N/A
Fecal coliform	N/A	class-based criteria	water supply intakes in unfiltered public water supplies- not exceed 20 fecal coliform organisms per 100 mL in all	N/A	N/A	waters for shellfishing - not exceed a geometric mean most probable number (MPN) of 14 per 100mL,	waters for shellfishing - not exceed median or geometric mean MPN of 88 per 100mL, nor shall more than 10% of	N/A

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Class C Criteria	Class SA Criteria	Class SB Criteria	Class SC Criteria
			samples taken in any six month period			nor shall more than 10% of samples exceed MPN of 28 /100mL	samples exceed MPN of 260/ 100mL	
Enterococci	N/A	class-based criteria	bathing beaches - geomean of 5 samples not exceed 33 colonies per 100 milliliters (mL) and no sample exceed 61 colonies per 100 mL; non bathing seasons - geomean samples taken within 6 months not exceed 33 colonies/ 100 mL	bathing beaches - geomean of 5 samples not >33 colonies/ 100 mL & no sample >61 colonies/ 100 mL; non-bathing season - geomean mean of samples in 6 months not >33 colonies/ 100 mL & no sample >61 colonies/ 100 mL	N/A	bathing beaches - no sample >104 colonies/ 100 mL & geomean of 5 samples not >35 colonies/ 100 mL; non-bathing beaches and bathing beach off-season - no sample >104 colonies / 100 mL & geomean of samples in 6 months not >35 colonies/ 100 mL	bathing beaches - no sample >104 colonies/ 100 mL & geomean of 5 samples not >35 colonies/ 100 mL; non-bathing beaches & bathing beaches off-season - no sample >104 colonies/ 100 mL & geomean of samples in 6 months not >35 colonies/ 100 mL	geomean of samples in 6 months not >175 colonies/ 100 mL & 10% of samples not >350 colonies/ 100 mL, but may be applied on a seasonal basis
E.coli	N/A	class-based criteria	bathing beaches - geomean of 5 samples not >126 colonies / 100 mL & no sample >235 colonies/ 100 mL; non bathing seasons - not	bathing beaches – geomean of 5 samples not >126 colonies /100 mL & no sample >235 colonies/100 mL; non-bathing season-	geomean of samples in 6 months not >630 colonies /100 mL & 10% of samples not >1260 colonies/ 100 mL	N/A	N/A	N/A

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Class C Criteria	Class SA Criteria	Class SB Criteria	Class SC Criteria
			>126 colonies /100 mL & no sample >235 colonies/ 100 mL	geomean of 5 samples in 6 months not >126 colonies / 100 mL & no sample >235 colonies/ 100 mL				
Temperature	N/A	class-based criteria – applicable to all classes: no change from natural background that would impair any uses assigned to this class including those conditions necessary to protect normal species diversity, successful migration, reproductive functions or growth of aquatic organisms	cold water fisheries - not exceed 68° F (20° C) based on mean of daily max temperature over 7 days. warm water fisheries - not exceed 83°F (28.3°C) & temperature rise not exceed 1.5°F (0.8°C). all - natural seasonal and daily variations shall be maintained	cold water fisheries - not exceed 68° F (20° C) mean daily max over 7 days & temp rise not exceed 3°F (1.7°C). warm water fisheries - not exceed 83°F (28.3°C) & temp rise not exceed 5°F (2.8°C). other-temp rise not exceed 3°F (1.7°C) monthly average max daily temperature	not exceed 85°F (29.4°C) & temperature rise not exceed 5°F (2.8°C)	not exceed 85°F (29.4°C) nor max daily mean of 80°F (26.7°C), & temperature rise shall not exceed 1.5°F (0.8°C)	not exceed 85°F (29.4°C) nor a max daily mean of 80°F (26.7°C), & temperature rise shall not exceed 1.5°F (0.8°C) during July through September nor 4°F (2.2°C) during October through June	not exceed 85°F (29.4°C) & temperature rise not exceed 5°F (2.8°C)
Copper (Cu)	N/A	acute marine CMC - 13 µg/L; chronic marine CCC - 7.5 µg/L	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium (Cd)	N/A	acute fresh CMC- 1.8 µg/L; chronic fresh CCC- 0.72 µg/L;	N/A	N/A	N/A	N/A	N/A	N/A

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Class C Criteria	Class SA Criteria	Class SB Criteria	Class SC Criteria
		acute marine CMC - 33 µg/L; chronic marine CCC - 7.9 µg/L						
Nickel (Ni)	N/A	acute fresh CMC- 470 µg/L; chronic fresh CCC- 52 µg/L; acute marine CMC - 74 µg/L; chronic marine CCC - 8.2 µg/L	N/A	N/A	N/A	N/A	N/A	N/A
Lead (Pb)	N/A	acute fresh CMC- 82 µg/L; chronic fresh CCC- 3.2 µg/L; acute marine CMC - 140 µg/L; chronic marine CCC - 5.6 µg/L	N/A	N/A	N/A	N/A	N/A	N/A
Zinc (Zn)	N/A	acute fresh CMC- 120 µg/L; chronic fresh CCC- 120 µg/L; acute marine CMC - 90 µg/L; chronic marine CCC - 81 µg/L	N/A	N/A	N/A	N/A	N/A	N/A
Aluminum (Al)	N/A	derived using multiple linear regression (MLR) models that incorporate pH, total hardness, and dissolved organic carbon (DOC)	N/A	N/A	N/A	N/A	N/A	N/A
Iron (Fe)	N/A	chronic fresh CCC - 1000 µg/L	N/A	N/A	N/A	N/A	N/A	N/A

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Class C Criteria	Class SA Criteria	Class SB Criteria	Class SC Criteria
Chromium III (Cr(III)) & Chromium VI (Cr(VI))	N/A	chromium III: acute fresh CMC- 570 µg/L; chronic fresh CCC - 74 µg/L. chromium VI: acute fresh CMC- 16 µg/L; chronic fresh CCC- 11 µg/L; acute marine CMC - 1,100 µg/L; chronic marine CCC - 50 µg/L	N/A	N/A	N/A	N/A	N/A	N/A
Polychlorinated Biphenyls (PCBs)	N/A	chronic fresh CCC- 0.014 µg/L; chronic marine CCC - 0.03 µg/L	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Tertiary-Butyl Ether (MTBE)	N/A	acute fresh CMC - 151 mg/L; chronic fresh CCC- 51 mg/L; acute marine CMC - 53 mg/L; chronic marine CCC - 18 mg/L	N/A	N/A	N/A	N/A	N/A	N/A

Table 4: Pollutant Categories and Water Quality Standards for New Hampshire

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Other Criteria
Dissolved Oxygen (DO)	N/A	class-based criteria	DO at least 75% saturation, based on a daily average & instantaneous minimum of at least 6 mg/L at any place or time	at least 75% of saturation, based on a daily average & instantaneous minimum DO concentration of at least 5 mg/L	cold water fish spawning areas - 7 day mean DO concentration at least 9.5 mg/L & instantaneous minimum concentration at least 8 mg/L for October 1 of one year to May 14
Total Suspended Solids (TSS)	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	N/A	N/A	N/A	N/A
Oil and Grease	shall contain no oil or grease in such concentrations that would impair any existing or designated uses	N/A	N/A	N/A	N/A
pH	N/A	class-based criteria	shall be as naturally occurs	shall be 6.5 to 8.0 SU unless due to natural causes	waters in temporary partial use areas shall be 6.0 to 9.0 SU unless due to natural causes
Enterococci	N/A	class-based criteria	N/A	tidal waters used for swimming – no more than either a geomean of at least 3 samples from a 60-day period of 35 / 100mL, or 104 / 100mL in any sample	N/A

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Other Criteria
E.coli	N/A	class-based criteria	no more than either a geomean based on at least 3 samples from a 60-day period of 47 / 100mL, or > 153 / 100mL in any sample; designated beach areas - no more than a geomean based on at least 3 samples from a 60-day period of 47 / 100mL, or 88 / 100mL in any sample	no more than either a geomean based on at least 3 samples from a 60-day period of 126 / 100mL, or > 406 / 100mL in any sample; designated beach areas - no more than a geomean based on at least 3 samples from a 60-day period of 47 / 100mL, or 88 / 100mL in any sample	N/A
Nutrients	no phosphorus or nitrogen in concentrations that would impair any designated uses, unless naturally occurring.	N/A	N/A	N/A	N/A
Temperature	follow water quality requirements & recommendations of NH Fish and Game Dept., New England Interstate Water Pollution Control Commission (NEIWPCC), or EPA, whichever provides the most effective thermal pollution control	N/A	N/A	any temperature increase associated with discharge shall not interfere with the uses assigned to this class.	N/A
Copper (Cu)	N/A	acute fresh CMC - 2.9 ug/L; chronic fresh CCC - 2.3 ug/L; acute marine CMC - 4.8 ug/L; chronic marine CCC - 3.1 ug/L	N/A	N/A	N/A

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Other Criteria
Cadmium (Cd)	N/A	acute fresh CMC - 0.39 ug/L; chronic fresh CCC - 0.21 ug/L; acute marine CMC - 33 ug/L; chronic marine CCC - 7.9 ug/L	N/A	N/A	N/A
Nickel (Ni)	N/A	acute fresh CMC - 120.0 ug/L; chronic fresh CCC - 13.3 ug/L; acute marine CMC - 74 ug/L; chronic marine CCC - 8.2 ug/L	N/A	N/A	N/A
Lead (Pb)	N/A	acute fresh CMC - 10.5 ug/L; chronic fresh CCC - 0.41 ug/L; acute marine CMC - 210 ug/L; chronic marine CCC - 8.1 ug/L	N/A	N/A	N/A
Zinc (Zn)	N/A	acute fresh CMC - 30.0 ug/L; chronic fresh CCC - 30.0 ug/L; acute marine CMC - 90 ug/L; chronic marine CCC - 81 ug/L	N/A	N/A	N/A
Polycyclic Aromatic Hydrocarbons (PAHs)	N/A	acute marine CMC - 300 ug/L	N/A	N/A	N/A
Volatile Organic Compounds (VOCs)	N/A	multiple pollutants with different standards	N/A	N/A	N/A
Benzene	N/A	acute fresh CMC- 5,300 ug/L; acute marine CMC - 5,100 ug/L; chronic marine CCC -700 ug/L	N/A	N/A	N/A

Pollutant	Narrative Criteria	Numeric Criteria	Class A Criteria	Class B Criteria	Other Criteria
Toluene	N/A	acute fresh CMC - 17,500 ug/L; acute marine CMC - 6,300 ug/L; chronic marine CCC - 5,000 ug/L	N/A	N/A	N/A
Ethylbenzene	N/A	acute fresh CMC - 32,000 ug/L; acute marine CMC - 430 ug/L	N/A	N/A	N/A
Chromium (Cr)	N/A	chromium VI: acute fresh CMC - 16 ug/L; chronic fresh CCC - 11 ug/L; acute marine CMC - 1,100ug/L; chronic marine CCC - 50 ug/L chromium III: acute fresh CMC - 152 ug/L; chronic fresh CCC - 19.8 ug/L; acute marine CMC - 10,300 ug/L	N/A	N/A	N/A
Iron (Fe)	N/A	chronic fresh CCC - 1,000 ug/L	N/A	N/A	N/A
Polychlorinated Biphenyls (PCBs)	N/A	acute fresh CMC - 2.0 ug/L; chronic fresh CCC - 0.014ug/L; acute marine CMC - 10.0 ug/L; chronic marine CCC - 0.03ug/L	N/A	N/A	N/A

NOAA Fisheries ESA-Listed Species and Critical Habitat in the Action Area

The ESA-listed species under the jurisdiction of NMFS that may occur within the project areas covered in the EPA NLAA Programmatic are listed in Table 5. The EPA NLAA Programmatic also applies to their designated critical habitats, as applicable. EPA will seek technical guidance from GARFO prior to project authorization, if necessary.

For the best available information about the distribution, behaviors, and life stages of species present throughout the action area as well as the extent and physical and biological features (PBFs) of designated critical habitat, EPA will regularly check the [ESA Section 7 Mapper](#) and review [GARFO's Species Tables](#).

Table 5: ESA-Listed Species and Critical Habitat in the Action Area

Species	ESA Status	Expected Life Stages	Expected Behaviors	Expected Time of Year	Listing Rule/Date	Date of Most Recent Recovery Plan	Effect Determination
North Atlantic Right Whale (<i>Eubalaena glacialis</i>)	E	Adults; Juveniles	Foraging; Wintering; Migrating	Year round	73 FR 12024	NMFS 2005	NLAA
Fin Whale (<i>Balaenoptera physalus</i>)	E	Adults; Juveniles	Foraging; Wintering; Migrating	Year round	35 FR 18319	NMFS 2010	NLAA
Kemp's Ridley Sea Turtle (<i>Lepidochelys kempii</i>)	E	Adults; Juveniles	Foraging; Migrating	May to November*	35 FR 18319	NMFS <i>et al.</i> 2011	NLAA
Leatherback Sea Turtle (<i>Dermochelys coriacea</i>)	E	Adults; Juveniles	Foraging; Migrating	May to November*	35 FR 8491	NMFS & USFWS 1992	NLAA
Loggerhead Sea Turtle; Northwest Atlantic DPS (<i>Caretta caretta</i>)	T	Adults; Juveniles	Foraging; Migrating	May to November*	76 FR 58868	NMFS & USFWS 2008	NLAA
Green Sea Turtle; North Atlantic DPS (<i>Chelonia mydas</i>)	T	Adults; Juveniles	Foraging; Migrating	May to November*	81 FR 20057	NMFS & USFWS 1991	NLAA
Atlantic sturgeon (5 Distinct Population Segments) (<i>Acipenser oxyrinchus oxyrinchus</i>)	T (GOM) E (four others)	All life stages (eggs to adults)	Spawning and Rearing (specific rivers); Foraging; Overwintering, Migrating	Year round	77 FR 5880 and 77 FR 5914	N/A	NLAA
Shortnose sturgeon (<i>Acipenser brevirostrum</i>)	E	All life stages (eggs to adults)	Spawning and Rearing (specific rivers); Foraging;	Year round	32 FR 4001	NMFS 1998	NLAA

Species	ESA Status	Expected Life Stages	Expected Behaviors	Expected Time of Year	Listing Rule/Date	Date of Most Recent Recovery Plan	Effect Determination
			Overwintering; Migrating				

* sea turtle cold stunning occurs annually from October to January.

In addition, to the ESA-listed species above, Atlantic sturgeon critical habitat and North Atlantic right whale critical habitat may occur within the action area of the EPA NLAA Programmatic. The PBFs of Atlantic sturgeon critical habitat and North Atlantic right whale critical habitat are detailed in Table 6 and Table 7.

Table 6: PBFs for Atlantic Sturgeon Critical Habitat

1.	Hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand range) for settlement of fertilized eggs, refuge, growth, and development of early life stages;
2.	Aquatic habitat with a gradual downstream salinity gradient of 0.5 up to as high as 30 parts per thousand and soft substrate (e.g., sand, mud) between the river mouth and spawning sites for juvenile foraging and physiological development.
3.	Water of appropriate depth and absent physical barriers to passage (e.g., locks, dams, thermal plumes, turbidity, sound, reservoirs, gear, etc.) between the river mouth and spawning sites necessary to support: (1) unimpeded movements of spawning adults to and from spawning sites; (2) seasonal and physiologically dependent movement of juvenile Atlantic sturgeon to appropriate salinity zones within the river estuary; (3) staging, resting, or holding of subadults or spawning condition adults. Water depths in main river channels must also be deep enough (e.g., at least 1.2 m) to ensure continuous flow in the main channel at all times when any sturgeon life stage would be in the river;
4.	Water, between the river mouth and spawning sites, especially in the bottom meter of the water column, with the temperature, salinity, and oxygen values that, combined, support: (1) spawning; (2) annual and interannual adult, subadult, larval, and juvenile survival; and (3) larval, juvenile, and subadult growth, development, and recruitment (e.g., 13°C to 26° C for spawning habitat and no more than 30° C for juvenile rearing habitat and 6 mg/L dissolved oxygen or greater for juvenile rearing habitat).

Table 7: PBFs for North Atlantic Right Whale Critical Habitat

1.	The physical oceanographic conditions and structures of the Gulf of Maine and Georges Bank region that combine to distribute and aggregate <i>Calanus finmarchicus</i> for right whale foraging, namely prevailing currents and circulation patterns, bathymetric features (basins, banks, and channels), oceanic fronts, density gradients, and temperature regimes;
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2.	Low flow velocities in Jordan, Wilkinson, and Georges Basins that allow diapausing <i>C. finmarchicus</i> to aggregate passively below the convective layer so that the copepods are retained in the basins;
3.	Late stage <i>C. finmarchicus</i> in dense aggregations in the Gulf of Maine and Georges Bank region;
4.	Diapausing <i>C. finmarchicus</i> in aggregations in the Gulf of Maine and Georges Bank region.

Project Design Criteria (PDC)

PDC developed by GARFO (general and stressor specific) for the activity types described herein (Table 1) are based on past EPA consultations. They were developed based on EPA’s previously authorized activities from the past 5 years. Projects that fit within the PDC may be included in this EPA NLAA Programmatic. NLAA activities that do not fit into the PDC may also be included under the EPA NLAA Programmatic if proper justification for their inclusion is provided on the verification form. Activities deemed not eligible for inclusion in the NLAA Programmatic must be consulted on separately through an individual consultation, pursuant to informal consultation procedures located at <https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-consultations-greater-atlantic-region>. In situations where the activity may adversely affect an ESA-listed species or adversely modify/destroy critical habitat, a formal consultation is required.

Criteria for all projects are listed first, followed by specific criteria related to stressors that may result from the activities included under this EPA NLAA Programmatic. EPA has determined that any projects included under the EPA NLAA Programmatic are not likely to adversely affect listed species individually, or cumulatively as a program because: 1) the projects will be implemented at a time when listed species are not present in the action area; or 2) the projects will be implemented according to PDC that minimize effects to listed species and/or critical habitat and the response of any exposed individuals will be insignificant or discountable, individually and cumulatively. Similarly, EPA has determined the projects included in the EPA NLAA Programmatic are not likely to adversely affect the critical habitats of listed species in the action area because: 1) the projects will be implemented in areas not designated as critical habitat, or 2) the projects will be implemented according to PDC that minimize exposure of primary biological features (PBFs) of critical habitat to adverse effects so that any effects are insignificant and/or discountable, individually and cumulatively.

General PDC

In order to be eligible for streamlined consultation (using the verification form) under the EPA NLAA Programmatic, all projects must meet the following PDC, or provide justification for why the criteria do not apply. A GARFO section 7 biologist will review the justification. If the GARFO section 7 biologist does not accept the justification, EPA will complete a separate, individual consultation in order to receive NLAA concurrence. The general PDC that will be applicable to all projects are:

1. No portion of the proposed action will individually or cumulatively have an adverse effect on ESA-listed species or designated critical habitat.
2. No project will occur in Atlantic or shortnose sturgeon spawning grounds in the Merrimack River, Piscataqua River, Connecticut River, and/or any additional river where spawning grounds are identified⁶ unless
 - a. effluent is compliant with state water quality standards at the end-of-pipe discharge point, and
 - b. an adequate dilution factor in the receiving water body is achieved.
3. Any project within designated Atlantic sturgeon critical habitat must have no effect on hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand) (PBF 1 detailed in Table 6).
4. No changes in temperature, water flow, salinity, or dissolved oxygen levels to a level that may adversely affect ESA-listed species or designated critical habitat.
5. If ESA-listed species are likely to pass through the action area at the time of year when the activity occurs, a zone of passage (~50% of water body) with appropriate habitat for ESA-listed species (e.g., depth, water velocity, etc.) must be maintained (i.e., biological stressors such as turbidity or effluent plume must not create barrier to passage nor extend from bank to bank or surface to bottom in a river).
6. Any project in designated North Atlantic right whale critical habitat must have no effect on the physical and biological features (PBFs listed in Table 7).

Stressor Specific PDC

Stressor specific PDC covered by the EPA NLAA Programmatic are listed by stressor. As stated, the stressor specific PDC are intended to ensure projects, individually, and in aggregate, are not likely to adversely affect ESA-listed species and critical habitats analyzed under this EPA NLAA Programmatic. As such, any project to be authorized and concurred with under this EPA NLAA Programmatic must meet the stressor specific PDC:

Impingement/Entrainment/Capture PDC

7. No intake of water at cooling water intake structures (CWIS) where early life stages are expected to be present:
 - In the Connecticut River Atlantic and/or shortnose sturgeon ELS are expected to be present from April 15 to October 31.

⁶ Best available information regarding spawning grounds for Atlantic sturgeon and shortnose sturgeon is located in the Species Tables at <https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater> and the ESA Section 7 Mapper <https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=a85c0313b68b44e0927b51928271422a>

- In the Merrimack River up to Haverhill, shortnose sturgeon ELS are expected to be present from April 1 to July 15.
- In areas of a river where PBF 1 (i.e., hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0 to 0.5 parts per thousand range) needed for the settlement of fertilized eggs, refuge, growth, and development of early life stages), and PBF 2 (i.e., aquatic habitat with a gradual downstream salinity gradient of 0.5 up to as high as 30 ppt and soft substrate (e.g., sand, mud) between the river mouth and spawning sites for juvenile foraging and physiological development) are present.

8. CWIS must not have greater than 1 ft/s intake velocities in any waters to prevent impingement or entrainment of any juvenile-adult stage ESA-listed species (areas with ELS are excluded). CWIS are required to have appropriate sized mesh screens to block access of aquatic life to CWIS when operationally feasible and ESA-listed species may be present.

Water Quality PDC

9. Any discharges must meet state water quality standards (e.g., no discharges of substances in concentrations that may cause acute or chronic adverse reactions, as defined by EPA water quality standards criteria); no discharges of unauthorized or toxic substances without justification supporting a NLAA determination for ESA-listed species.

10. Effluent bacteria levels should not be in excess of levels that will reduce dissolved oxygen levels in the action area.

11. Nutrients must not reduce dissolved oxygen levels (particularly in summer months) in a way that negatively affects ESA-listed species.

12. Increased total suspended solids (TSS) should not negatively impact sturgeon early life stages (ELS) or spawning.

13. Effluent temperature must meet water quality standards and an adequate dilution factor for any thermal plume in the receiving water body must be achieved.

Habitat Modification PDC

14. No portion of the proposed action that may affect sturgeon will occur in areas identified as overwintering grounds⁷, where dense aggregations are known to occur as follows:

- In the Connecticut River from November 15 to April 15
- In the Merrimack River from November 1 to March 31

⁷ Note: If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval (include reference in project description).

References

- National Marine Fisheries Service (NMFS). 1998a. Final Recovery Plan for the Shortnose Sturgeon (*Acipenser brevirostrum*).
- National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and SEMARNAT. 2011. Bi-National Recovery Plan for the Kemp's Ridley Sea Turtle (*Lepidochelys kempii*).
- National Marine Fisheries Service (NMFS). 2005. Recovery Plan for the North Atlantic Right Whale (*Eubalaena glacialis*).
- National Marine Fisheries Service (NMFS). 2010a. Final Recovery Plan for the Fin Whale (*Balaenoptera physalus*).
- National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS). 1991. Recovery Plan for U.S. Population of Atlantic Green Turtle (*Chelonia mydas*).
- National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS). 1992a. Recovery Plan for Leatherback Turtles (*Dermochelys coriacea*) in the U.S. Caribbean, Atlantic, and Gulf of Mexico.
- National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS). 2008. Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle (*Caretta caretta*).