

Status of Atlantic Salmon

Atlantic salmon (*Salmo salar*) is listed as an endangered species under the Endangered Species Act (ESA).

- 2000 - Listed for Gulf of Maine distinct population segment
- 2005 - Recovery plan finalized by NOAA Fisheries and US Fish and Wildlife
- 2009 – Added fish in the Penobscot, Kennebec, and Androscoggin rivers, tributaries to the GOM distinct population segment
- 2015 - NOAA created Species in the Spotlight including a 5-yr action plan for priority actions for Atlantic salmon
- 2020 Stock Assessment - remains overfished and at historically low levels

[More information](#) is available from NOAA Fisheries.

Atlantic Salmon Management

States and NASCO

The need for salmon management is a long-recognized issue. The New England coastal states manage salmon in their waters under various commissions, agreements, and programs established as early as the 1940s. The North Atlantic Salmon Conservation Organization ([NASCO](#)) is an international organization established by the [Convention for the Conservation of Salmon in the North Atlantic Ocean](#), in 1984. The Convention created protected areas free from targeted salmon fishing beyond 12 miles from the coast.

The NEFMC Atlantic Salmon FMP

Despite state management and international cooperation under the 1984 Convention, a gap remained in terms of conservation and management measures between 3-12 miles from shore. Thus, the [1987 Council FMP](#) for Atlantic Salmon was developed to address this gap and support restoration of the U.S. Atlantic salmon resource.

The FMP prohibits a directed or incidental fishery in federal waters (3-200 miles), and the primary measure in the FMP is a prohibition on possession of salmon in federal waters. The FMP complements Atlantic salmon conservation measures enacted by the states.

- Management objective: Complement restoration and management programs of the states and the North Atlantic Salmon Conservation Organization (NASCO)
- Management unit: All anadromous salmonids of US origin in the N. Atlantic throughout their migratory range, except when in the waters of another nation

Amendments 1 (1999) and 3 (2018) designated and subsequently updated essential fish habitat and habitat area of particular concern. Amendment 1 also allows for salmon aquaculture if “action is consistent with the goals and objectives of the Atlantic Salmon FMP” ([final rule](#)).

Regulations based on the Council's FMP are available [here](#). Given their brevity, they are reproduced in their entirety below. Note §648.40 prohibiting possession, as well as the §648.41(b) listing the types of aquaculture measures that can be considered in a framework action.

Objective and scope of planned framework action

The possible need for a Council action related to Atlantic salmon aquaculture arose because of the proposed Blue Water Fisheries Project (see "Related aquaculture project" below for more information). During summer/fall 2021, Blue Water Fisheries added Atlantic salmon to the list of species they plan to culture. In December 2021, the Council approved a 2022 work priority to "Develop an action to facilitate Atlantic salmon aquaculture proposals in the EEZ". The Committee discussed the action at meetings in June and August; holding off on a recommendation to initiate a Council action until the timing of DEIS development for the Blue Water Fisheries project was more clearly established.

The scope for the Council's action was discussed and recommended by the Habitat Committee on August 18, 2022:

1. Develop regulations necessary to authorize possession of Atlantic salmon in the EEZ, on the condition that the salmon is farm raised, according to NASCO standards.
2. In addition, the Committee recommended that the action should explore related enforcement and reporting issues.

Authorizing possession of cultured Atlantic salmon within the U.S. EEZ will facilitate operation of salmon aquaculture projects. Dealers cannot buy products prohibited under MSA, therefore, allowing possession at sea via framework will allow dealers to buy cultured salmon. The Committee suggested making this authorization generic to any future salmon aquaculture project, versus applying to Blue Water Fisheries project only.

The Committee's rationale for recommending development of a Council action is that Atlantic salmon is a NEFMC-managed species, and the FMP provides for aquaculture in the EEZ. This suggests a greater role in the process than if the project included only non-managed species such as steelhead.

"NASCO standards" and in particular the [Williamsburg Resolution](#) are designed to minimize the impacts of salmon aquaculture, introductions, transfers, and transgenics on wild stocks (see <https://nasco.int/conservation/aquaculture-and-related-activities/>).

Examples of Council management of aquaculture in other regions

In 2019, the U.S. District Court for the Eastern District of Louisiana ruled that the NMFS could not create an aquaculture program for the Gulf of Mexico via an amendment developed by the Gulf of Mexico FMC, and in 2020, the U.S. Court of Appeals for the 5th Circuit upheld this ruling. However, the ruling only applies within the 5th Circuit and thus not to our region. The Habitat Committee discussed this topic during its [October 26, 2021 meeting](#).

NMFS, in coordination with the Western Pacific FMC developed a Pacific Islands Aquaculture Management Program, which was [finalized](#) August 19, 2022. A [Draft Programmatic EIS](#) was published in May 2021.

Aquaculture permitting

Aquaculture permitting is a complex process that involves multiple agencies. The process is summarized in the [background document](#) prepared to complement the Council's [Aquaculture Policy](#). The 2022 [Guide to Permitting Marine Aquaculture in the United States](#) is also a useful resource. In brief:

- Applicable laws: ESA, MSA, National Historic Preservation Act, Fish and Wildlife Coordination Act, National Marine Sanctuaries Act, MMPA, NEPA, CZMA
- Under MSA, EFH consultations provide conservation recommendations to avoid, reduce, offset any adverse effects
- EPA issues a permit for discharge, and USACOE issues a permit for the structures.
- NOAA is lead on developing the EIS for federal waters aquaculture projects where two or more agencies are involved in permitting.

The permitting process addresses an array of environmental, social, and economic issues. Issues most relevant to the Council are described in the Council's aquaculture background document. In terms of Council role and engagement, the Council can participate as a member of the public or any interested party might, via comment opportunities available within the NEPA process and elsewhere in the permitting process. NOAA Fisheries also collaborates more directly with the Council on issues of shared concern, for example protection of EFH, or if a project proposes culturing a Council-managed species, such as Atlantic salmon.

In terms of regional scale siting and planning, NOAA Fisheries is developing [Aquaculture Opportunity Areas](#). The Council has been briefed on this issue at multiple meetings, but at present there are no AOAs planned for New England.

Related aquaculture project

Blue Water Fisheries is a proposed commercial-scale marine finfish aquaculture facility within federal waters ~ 7.5 miles ENE of Newburyport Harbor in water depths ~80 m.

- As proposed, the facility will occupy two 265-acre sites; at each site 20 submersible net pens in 2 x 10 grid. The pens will remain submerged ~15 m below the surface except for servicing.
- Initial deployment: 4 pens. 40 pens at full operation will produce up to 25.6 million lb/yr of a combination of steelhead trout (*Oncorhynchus mykiss*) and Atlantic salmon. Lumpfish (*Cyclopterus lumpus*) will be cultured to manage external parasites.
 - Initially BWF proposed culturing steelhead and lumpfish; Atlantic salmon was added to the project during late summer/early fall 2021.
- Year-round operations are planned out of Portsmouth, NH.

The Council has already submitted comments on this project. On December 10, 2020, Council staff participated in an interagency pre-application meeting with staff from NOAA, the Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (USACOE), and the developer of the project. During the meeting and when preparing initial comments, Council staff reviewed the November 2020 siting analysis prepared by NOAA's National Centers for Coastal Ocean Science (NCCOS). The Council's

Background information to support Atlantic salmon aquaculture framework initiation

December 22 [letter](#) provided comments on this analysis, and enclosed the Council’s aquaculture policy, which was approved earlier that month.

In June 2021, USACOE published a public notice that they had received an application from Blue Water Fisheries to conduct work in waters of the United States and sought comments from interested parties to help them evaluate the proposal. The Council, jointly with the Mid-Atlantic Fishery Management Council, responded with a July 2 [letter](#). This letter identified some siting concerns, namely that the project should be located to avoid complex and sensitive habitat types, as well as areas of substantial fishing activity. The Councils also identified concerns about culture of non-native species and the potential for impact to native species including Atlantic salmon.

Recently on August 15, 2022, Blue Water Fisheries issued a Request for Proposals to select a 3rd party contractor to conduct NEPA analysis, i.e., develop the environmental impact statement for the project. GARFO must deem the contractor qualified, and the contractor will work directly for GARFO. Once the 3rd party contractor is in place, GARFO publishes a notice of intent to prepare an EIS. There will be public scoping as part of NOI process, which represents a comment opportunity for the Council. The EIS will likely address the following issues:

- Physical oceanography
- Air quality
- Public health
- Recreation and tourism
- Environmental Justice
- Climate and meteorology
- Water quality
- Marine mammals
- Lower trophic levels
- Environmental contaminants
- Ecosystem function
- Fish and Essential Fish Habitat
- Marine and coastal birds
- Species listed under ESA and their Critical Habitat
- Socioeconomics
- Cultural resources
- Transportation
- Visual resources
- Energy
- Land and water ownership, use, and management

Issues such as siting/spatial planning, water quality, genetics/source of cultured fish, emergency response plans, etc. are addressed through the permitting process for individual projects. The Council can provide comments throughout this process based on its Aquaculture Policy, and guided by a 2021 [Coordination Plan](#).

NOAA Fisheries has already flagged the issue that impacts to cod spawning areas outside of Whaleback were not fully considered in pre-application phase, and GARFO likely to develop an alternative focused on avoiding impacts to cod spawning. GARFO staff have indicated that NCCOS is currently developing a spatial analysis to support this work.

The draft permitting timeline is provided below.

Background information to support Atlantic salmon aquaculture framework initiation

Figure 1. Blue Water Fisheries Environmental Review and Permitting Process - DRAFT

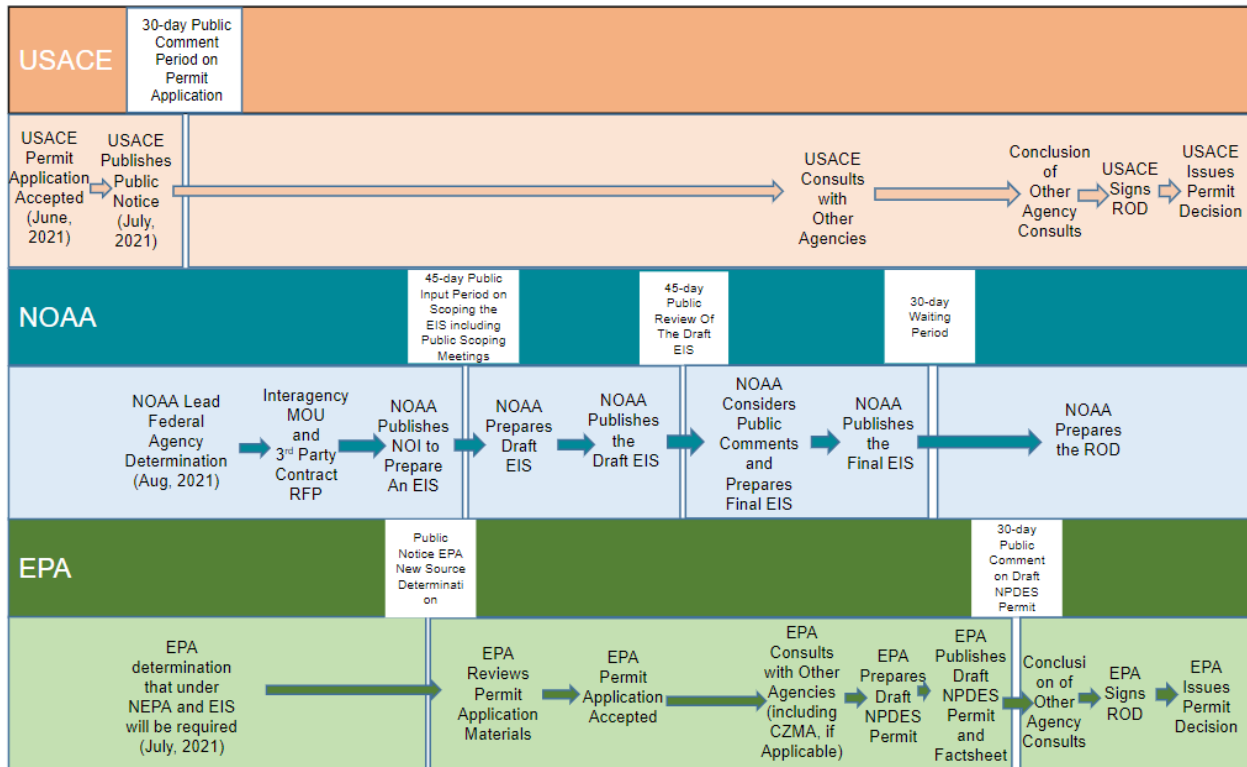


Figure 2. Atlantic Salmon FMP Regulations

Subpart C - Management Measures for Atlantic Salmon

§ 648.40 Prohibition on possession.

- (a) *Incidental catch.* All Atlantic salmon caught incidental to a directed fishery for other species in the EEZ must be released in such a manner as to insure maximum probability of survival.
- (b) *Presumption.* The possession of Atlantic salmon is prima facie evidence that such Atlantic salmon were taken in violation of this regulation. Evidence that such fish were harvested in state waters, or from foreign waters, or from aquaculture enterprises, will be sufficient to rebut the presumption. This presumption does not apply to fish being sorted on deck.

§ 648.41 Framework specifications.

- (a) *Within season management action.* The New England Fishery Management Council (NEFMC) may, at any time, initiate action to implement, add to or adjust Atlantic salmon management measures to:
 - (1) Allow for Atlantic salmon aquaculture projects in the EEZ, provided such an action is consistent with the goals and objectives of the Atlantic Salmon FMP; and
 - (2) Make changes to the SBRM, including the CV-based performance standard, the means by which discard data are collected/obtained, fishery stratification, the process for prioritizing observer sea-day allocations, reports, and/or industry-funded observers or observer set aside programs.

- (b) **Framework process.** After initiation of an action to implement, add to or adjust an Atlantic salmon management measure to allow for an Atlantic salmon aquaculture project in the EEZ, the NEFMC shall develop and analyze Atlantic salmon management measures to allow for Atlantic salmon aquaculture projects in the EEZ over the span of at least two NEFMC meetings. The NEFMC shall provide the public with advance notice of the availability of both the proposals and the analysis and opportunity to comment on them prior to and at the second NEFMC meeting. The NEFMC's recommendation on aquaculture management measures must come from one or more of the following categories: minimum fish sizes, gear restrictions, minimum mesh sizes, possession limits, tagging requirements, monitoring requirements, reporting requirements, permit restrictions, area closures, establishment of special management areas or zones and any other management measures currently included in the FMP.
- (c) **NEFMC recommendation.** After developing Atlantic salmon management measures and receiving public testimony, the NEFMC shall make a recommendation to NMFS. The NEFMC's recommendation must include supporting rationale and, if management measures are recommended, an analysis of impacts and a recommendation to NMFS on whether to issue the management measures as a final rule. If NMFS concurs with the NEFMC's recommendation to issue the management measures as a final rule, the NEFMC must consider at least the following factors and provide support and analysis for each factor considered:
- (1) Whether the availability of data on which the recommended management measures are based allows for adequate time to publish a proposed rule, and whether regulations have to be in place for an entire harvest/fishing season.
 - (2) Whether there has been adequate notice and opportunity for participation by the public and members of the affected industry in the development of the NEFMC's recommended management measures.
 - (3) Whether there is an immediate need to protect the resource.
 - (4) Whether there will be a continuing evaluation of measures adopted following their implementation as a final rule.
- (d) **NMFS action.** If the NEFMC's recommendation includes implementation of management measures and, after reviewing the NEFMC's recommendation and supporting information:
- (1) NMFS concurs with the NEFMC's recommended management measures and determines that the recommended measures should be issued as a final rule based on the factors specified in [paragraph \(c\)\(1\)](#) through [\(4\)](#) of this section, the measures will be issued as a final rule in the FEDERAL REGISTER.
 - (2) NMFS concurs with the NEFMC's recommendation and determines that the recommended management measures should be published first as a proposed rule, the measures will be published as a proposed rule in the FEDERAL REGISTER. After additional public comment, if NMFS concurs with the NEFMC recommendation, the measures will be issued as a final rule in the FEDERAL REGISTER.
 - (3) NMFS does not concur, the NEFMC will be notified in writing of the reasons for the non-concurrence.
- (e) **Emergency action.** Nothing in this section is meant to derogate from the authority of the Secretary to take emergency action under section 305(e) of the Magnuson-Stevens Act.

[64 FR 40520, July 27, 1999, as amended at 80 FR 37194, June 30, 2015]