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September 9, 2022

**CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ESTABLISHING A SPECIAL REVIEW PROCEDURE**

PROJECT NAME: Shellfish Aquaculture
PROJECT MUNICIPALITY: Statewide
PROJECT WATERSHED: Statewide
EEA NUMBER: 16583
PROJECT PROPONENT: Division of Marine Fisheries
DATE NOTICED IN MONITOR: August 10, 2022

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.09 of the MEPA regulations (301 CMR 11.00), I hereby establish a Special Review Procedure (SRP) to guide MEPA review of shellfish aquaculture projects proposed on sites licensed by municipalities and whose operations are permitted by the Division of Marine Fisheries (DMF).

The draft SRP was published in the Environmental Monitor on August 10, 2022 for a 20-day public review and comment period. I received 6 comments, including from the Provincetown Shellfish Department, Wellfleet Shellfish Constable, and several nonprofit organizations including MassAudubon, Massachusetts Bays, and The Nature Conservancy. Comments are generally supportive of the effort to streamline regulatory review for smaller, less impactful aquaculture projects, but emphasize the importance of considering the cumulative impacts of multiple operations sited in close proximity to one another. Comments also request that the scope and scale of the SRP be broadened to provide for a review of best management practices for aquaculture activities as a whole. As noted below, this SRP is proposed as a 1-year pilot to create a consistent review procedure for shellfish aquaculture projects, while allowing for reporting of cumulative impacts of projects located within the same waterbody. Participating Agencies will use the data collected during the 1-year pilot period to consider a broader permitting framework and associated MEPA reviews for aquaculture activities as a whole.

Background

On August 16, 2018, the DMF requested that the Secretary of Energy and Environmental Affairs (EEA) create a Special Review Procedure (SRP) (the “2018 DMF request”) for shellfish aquaculture projects in the Commonwealth. As requested by DMF, notice of the request was published in the September 5, 2018 *Environmental Monitor*, which commenced a 20-day public comment period. I received comments on the 2018 DMF request from state agencies, regional planning commissions, environmental groups, and organizations working in support of the marine aquaculture industry. All comment letters expressed support for the request to establish an SRP. While a draft SRP was not published with the 2018 DMF request, the request letter indicated that the SRP would facilitate the development of a state-wide *Massachusetts Aquaculture Permitting Plan (MAPP)* that would support both private and municipal aquaculture activities. The DMF proposed to work with partner EEA agencies and a Citizen’s Advisory Committee (CAC) to develop environmental and public use standards that would be incorporated into the MAPP. The scope of the MAPP was envisioned to be broad and include shellfish propagation and restoration projects, and as warranted, other activities such as macroalgae and finfish culture. The MAPP would then allow for streamlined MEPA reviews of projects satisfying the standards and best practices set forth in the MAPP.

Since the publication of the 2018 DMF request, DMF and partner EEA agencies have continued to convene to discuss the SRP request. DMF also launched a website¹ to provide permitting guidance for Massachusetts aquaculture projects. However, given the large scope and scale of the SRP as originally contemplated and the lack of best management practices for newly emerging aquaculture activities, DMF, in consultation with EEA agencies, has requested that the Secretary establish a more focused SRP to streamline review of smaller shellfish aquaculture projects, while EEA agencies continue to consider a broader permitting framework for aquaculture activities. As noted, comments received on this SRP reiterate a desire to develop a broader permitting framework and associated MEPA review that would result in identification of best management practices for the industry. I am establishing this SRP as a 1-year pilot and anticipate that data collected on shellfish aquaculture projects will be used by Participating Agencies in consideration of this broader effort.

Purpose of the SRP

DMF has requested that the Secretary establish this SRP pursuant to 301 CMR 11.09(4)(a) and (e). DMF engages in the certification of municipal licensing and permitting of shellfish aquaculture, along with various other state, local and federal agencies including the Massachusetts Department of Environmental Protection (MassDEP), the Natural Heritage and Endangered Species Program (NHESP), U.S. Army Corp of Engineers (USACE), and local Conservation Commissions. This SRP is proposed only for aquaculture activities associated with “Class 3 / Type 1” permits issued by DMF under 322 CMR 7.01(4)(c) and 322 CMR 15.04(1)(a)3. and 15.04(1)(b)1. (“Authorizes an open water system with minimal structures and no feeding” for “Shellfish”).

Under M.G.L. c. 130, § 57, a city or town, after public notice and hearing, may grant a shellfish aquaculture license to any person to undertake shellfish aquaculture activities at all times of the year in, upon, or from a specific portion of coastal waters of the Commonwealth, of tidal flats or land under coastal waters. The license may authorize the following activities: (1) to plant and grow shellfish,

¹ <https://www.massaquaculturepermitting.org>

bottom/off bottom culture; (2) to place shellfish in or under protective devices affixed directly to the tidal flats or land under coastal waters, such as boxes, trays, pens, bags, or nets; (3) to harvest and take legal shellfish; (4) to plant cultch for the purpose of catching shellfish seed; and (5) to grow shellfish by means of racks, rafts or floats. The city or town may issue the license only after the DMF director certifies that “issuance of a shellfish aquaculture license and operation thereunder will cause no substantial adverse effect on the shellfish or other natural resources of the city or town.” Failure of the director to so certify is deemed a denial of the shellfish aquaculture license. Shellfish aquaculture licenses issued pursuant to M.G.L. c. 130, § 57 are subject to rules and regulations promulgated by DMF, and may be conditioned by DMF as the director deems necessary and appropriate.

DMF certifications under M.G.L. c. 130, § 57 (“Section 57 Certifications”) are deemed to be an “Agency Action” for purposes of MEPA review because they constitute a “permit, license, certificate, variance, approval, or other entitlement for use, granted by an Agency for or by reason of a Project.” 301 CMR 11.02 (definition of “Permit”). Specifically, they constitute, together with the municipal license, an “approval” and “entitlement for use” for a specific portion of coastal waters for purposes of carrying out shellfish aquaculture; failure of DMF to issue the certification is deemed a denial of the shellfish aquaculture license. Most aquaculture sites range from 0.5 to 2 acres in size, and utilize gear (cages or tents) that are removed seasonally and result in minimal, if any, permanent impact to land under coastal waters. Because these types of operations are expected to have minimal adverse effects on protected areas and resources, state authorizations are often limited to DMF’s Section 57 Certification and shellfish propagation permit. Projects that have the potential to result in greater or more permanent impacts, such as the placement of cultch directly on the ocean bottom and larger scale private aquaculture sites, often require additional state authorizations, including a M.G.L. c. 91 License and/or 401 Water Quality Certification (WQC) from MassDEP and, if federal permitting is required, a federal consistency determination from the Massachusetts Coastal Zone Management (CZM) office. If the site is located in mapped rare species habitat, it also requires additional consultation and/or permitting through NHESP.

This SRP is intended to increase the efficiency of MEPA reviews for aquaculture projects that require a DMF Section 57 Certification, but for which no other Agency Action independently triggers the need for MEPA review. For these smaller projects, with predictable and minimal individual impacts, DMF seeks an alternative, more efficient, MEPA review process. This SRP also seeks to ensure that the cumulative impacts of multiple projects proceeding in a similar time frame within the same embayment, including potential impacts to wetlands, eelgrass, rare species habitat, and navigable waters, can be reviewed through MEPA in coordination with Participating Agencies. This SRP shall be implemented as a 1-year pilot, and shall be modified as appropriate after such period.

To facilitate MEPA review in accordance with this SRP, DMF has developed an Aquaculture Description Form (the “DMF Aquaculture Description Form”), to be submitted by the project proponent when requesting a municipal license and associated Section 57 Certification, for purposes of disclosing site-specific information about the proposed aquaculture activities, gear types, potential environmental impacts, and cumulative impacts when considering other similar activities proposed in the same embayment during a similar time frame. The DMF Aquaculture Description Form will also be used to determine whether the project is subject to the size thresholds established under this SRP and/or may require Agency Actions other than the Section 57 Certification such that this SRP is not applicable. The

form will solicit information related to the project's environmental impacts and benefits relative to Environmental Justice (EJ) populations.

SPECIAL REVIEW PROCEDURE

To effectuate the purposes set forth above, I hereby establish this SRP to guide MEPA review of shellfish aquaculture projects authorized by DMF through a Section 57 Certification and a Class 3 / Type 1 propagation permit under 322 CMR 7.00 and 15.00. I find that this SRP serves the purposes of MEPA, including providing meaningful opportunities for public review, analysis of alternatives, and consideration of cumulative environmental impacts. The acreage of the entire project site will be considered for determining the applicability of the categories outlined below.

Project Sites of 10 or More Acres (≥ 10 acres)

Any shellfish aquaculture sites of 10 or more acres will not be subject to this SRP, and will be required to follow normal MEPA procedures. In most cases, these projects will trigger the 10 acre (EIR) threshold for alteration of "any other wetlands" under 301 CMR 11.04(3)(a)1.b.

Projects Sites of Greater than 2 acres but Under 10 Acres (> 2 acres but < 10 acres)

Shellfish aquaculture projects in this size range that require a DMF Section 57 Certification, but no other Agency Actions, are eligible for the MEPA review procedures as described in this SRP. Shellfish aquaculture projects in this size range that require another Agency Action (in addition to DMF's Section 57 Certification) are not eligible for the MEPA review procedures described in this SRP and must undergo normal MEPA procedures.

If no other Agency Action has been identified for the project other than the DMF Section 57 Certification, projects that are greater than 2 acres but under 10 acres in size shall be permitted to file a copy of the DMF Aquaculture Description Form and DMF's conditional certification letter (the "MEPA Aquaculture Filing") to the MEPA Office in lieu of filing an Environmental Notification Form (ENF). The DMF Aquaculture Description Form shall attach a cumulative impacts summary, described in Part IV below. The MEPA Aquaculture Filing shall be published in the Environmental Monitor for a 20-day comment period, and the Secretary shall issue a Certificate within 10 days thereafter determining whether further review is warranted. If no review is required, the Certificate shall determine that the filing adequately and properly complies with MEPA and its implementing regulations. The Secretary may establish a standard format for such Certificates. If, based on comments received and consultation with Agencies, the Secretary determines that further review is warranted, the Secretary may issue a Scope for a Draft or Single Environmental Impact Report (EIR).

For any project located within 1 mile of an EJ population, the project proponent shall also include in the MEPA Aquaculture Filing, as an attachment to DMF Aquaculture Description Form, a supplement containing information describing the surrounding EJ populations and disclosing potential environmental impacts and benefits for such populations. The MEPA Office may provide a standard form to be used for this purpose, and such form shall be attached to the DMF Aquaculture Description Form. Projects subject to this SRP shall be exempt from the requirements of 301 CMR 11.05(4), and I

hereby find that the standards for a waiver under 301 CMR 11.11(1) are met in light of the burden posed to proponents and the minimal anticipated impacts of the projects that will be subject to this SRP. Notice of this SRP was provided on July 22, 2022 by DMF to a list of community-based organizations (CBOs) and tribes/indigenous organizations provided by the MEPA Office in consultation with the EEA EJ Director.

Projects Sites of 2 or Less Acres (≤ 2 acres)

If no Agency Action other than the Section 57 Certification independently triggers the need for MEPA review, projects that are 2 or less acres in size shall be exempt from any MEPA filing requirement. This provision does not exempt the project from other state permitting requirements that may apply to projects of any size, including a MassDEP c. 91 license, 401 WQC, and consultation and/or “take” permit from NHESP under the Massachusetts Endangered Species Act (MESA).²

Cumulative Impacts

Upon conditional certification of a license site, DMF shall coordinate with all project proponents to provide a cumulative impacts summary that addresses other similar aquaculture activities existing and/or proposed within the same embayment during a similar time frame to include with the DMF Aquaculture Description Form. Specifically, such information shall identify other existing and conditionally certified aquaculture sites, gear types, and acreage within the same embayment (contiguous waterbody) as the proposed site. DMF shall determine the appropriate form to record this information, and shall direct the proponent to include this information in the DMF Aquaculture Description Form. The Secretary’s determination as to whether further MEPA review is required under Part II above shall consider the cumulative impacts of the proposed project in combination with other aquaculture projects proposed within the same embayment within a similar time frame.

Circulation Requirements

Each review document submitted under this SRP must be circulated in accordance with 301 CMR 11.16. Public notice under 301 CMR 11.15(1) is not required.

If a full ENF is required for any projects subject to Part I-IV above, the Proponent must comply with all requirements set forth in 301 CMR 11.00 and associated policies and protocols.

Term of SRP and Modification

This SRP shall expire one year after the date of signature, unless extended by agreement of the Parties. If DMF wishes to change any provision in this SRP, it may submit a letter requesting modification of the SRP. The Secretary will then review the request and issue an Amended SRP if appropriate.

²All projects located in designated priority habitat for state-listed species according to the Massachusetts Natural Heritage Atlas, must file with the Natural Heritage and Endangered Species Program (NHESP) pursuant to the MA Endangered Species Act (MESA), regardless of project size.

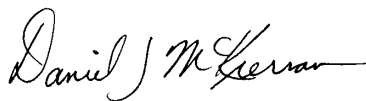
Conclusion

The signatures below indicate consent to the establishment of a Special Review Procedure and the provisions outlined in this SRP. In addition, DMF shall obtain, through the DMF Aquaculture Description Form, a signed acknowledgment and agreement to follow these SRP procedures by individual project proponents.



September 9, 2022
Date

Bethany A. Card, Secretary
Executive Office of Energy and Environmental Affairs



September 9, 2022
Date

Dan McKiernan
Division of Marine Fisheries

Comments received on the draft SRP:

08/18/2022	Michael Tlusty
08/29/2022	Provincetown Shellfish Department
08/30/2022	MassAudubon
08/30/2022	The Nature Conservancy
08/30/2022	Wellfleet Shellfish Constable
08/30/2022	Massachusetts Bays National Estuary Partnership



Comment Details			
EEA #/MEPA ID	First Name	Address Line 1	Organization
16583	Stephen	--	Provincetown Shellfish Dept
Comments Submit Date	Last Name	Address Line 2	Affiliation Description
8-29-2022	Wisbauer	--	Municipality
Certificate Action Date	Phone	State	Status
8-30-2022	+15082465756	MASSACHUSETTS	Opened
Reviewer	Email	Zip Code	
Page Czepiga, (857)408-7049, page.czepiga@mass.gov	Swisbauer@provincetown-ma.gov	02657	

Topic: Segmentation of cumulative impact

Hello

For decades there has been a conflict with permitting aquaculture. It's necessary for individuals, not municipalities, to go through the permitting process with MA Dmf so that food safety responsibility is placed on the individual. Environmentally, it's necessary to look at the entire municipality's aquaculture as one farming entity.

20 years ago Provincetown had 1 acre of aquaculture. As we started permitting with MADMF, we first had the individual grower go through a notice of intent with the town Conservation Commission. Our next round of permitting included closer to 10 individuals and acreages. After the third round, MEPA offices put a hold on new and transfer aquaculture for over a year. We had 38 acres of segmented permitting and if it had been individuals applying it would not have triggered environmental scrutiny.

I believe this is the problem at the origin and center of environmental permitting for aquaculture. The draft SRP sets up a scenario similar to the original problem. Permitting will continue in a segmented fashion, flying under the radar and eventually have cumulative impacts beyond MEPA office thresholds. We will be back to where we started.

This process needs to be an evaluation of each municipality as a single farming entity. The responsibility for this should be on the municipality. Section 4 of the SRP entitled: cumulative impacts is the only portion of the document dealing with the true issue. The proposed solution seems to fall in a subjective gray area. Ten individuals needing individual propagation permits (food safety and shellfish health) could put in 1 acre grants. If the secretary sees a cumulative affect triggering an ENF, the document would need to squarely make that the responsibility of the Town and not the tenth individual.

Basically individuals growing and harvesting shellfish have to be responsible for food safety. The municipality should be responsible for cumulative impact. The SRP is written in a way that doesn't address long-standing issues. Thank you Steven Wisbauer

Provincetown Shellfish Constable

Update Status

Status

Accepted

▼

SUBMIT

Share Comment

SHARE WITH A REGISTERED USER

BACK TO SEARCH RESULTS

August 30, 2022

Secretary Bethany Card
Executive Office of Environmental Affairs
Attention: MEPA Office
100 Cambridge Street Suite 900
Boston, MA 02114

Via Email: page.czepiga@mass.gov

Re: **Draft Special Review Procedure, Shellfish Aquaculture**

Dear Secretary Card

On behalf of Mass Audubon, I submit the following comments on the draft Special Review Procedure (SRP) for Shellfish Aquaculture proposed by the Division of Marine Fisheries (DMF). Mass Audubon supports the continued development of the aquaculture industry in Massachusetts, with appropriate geospatial planning and best management practices (BMPs). We recognize that some forms of aquaculture can have water quality benefits as well as economic value. We also support the use of shellfish restoration projects for Living Shorelines and other coastal resiliency projects, and recommend that regulatory streamlining be implemented to provide pathways for those projects to advance. This should include provisions allowing for no harvest sanctuaries for projects with goals primarily focused on habitat restoration, water quality, and climate resiliency. The current regulatory structure does not support those types of shellfish propagation projects.

As proposed, the SRP is likely to result in more than minimal individual and cumulative impacts. **A Programmatic review that first establishes appropriate locations and BMPs would be a more appropriate vehicle for planning and streamlining permitting for new aquaculture.** Mass Audubon has observed that intertidal and nearshore aquaculture projects are resulting in impacts including plastic debris, compaction, and displacement and disturbance of wildlife such as breeding and migrating coastal waterbirds. The potential impacts on other important habitat features such as eelgrass, including former eelgrass sites that may have the potential to re-grow if the site is not occupied by aquaculture, are unclear.

The 2021 Massachusetts Ocean Management Plan¹ identifies the need for additional planning and BMPs for aquaculture:

*Since the 2015 ocean plan, several shellfish-related initiatives were undertaken, including the Massachusetts Shellfish Initiative (MSI) and the Massachusetts Aquaculture Permitting Plan (MAPP). MSI involved EEA agencies, academics, shellfishermen, and environmental advocacy groups working together to create a strategic plan to maximize the economic, environmental, and social benefits of shellfish in Massachusetts. The MAPP project, assisted by ocean planning leadership and momentum, drew together multiple agencies to clarify the environmental permitting process for aquaculture in Massachusetts, resulting in a website outlining the permitting process and identifying important standards. **The next steps of the MAPP project include determining best***

¹ https://www.mass.gov/service-details/2021-massachusetts-ocean-management-plan_p.38

practices to minimize impacts and laying out a framework to assess cumulative impacts of aquaculture projects. (p.38) [emphasis added]

There are 94 aquaculture sites, occupying 226 acres, according to the 2021 Ocean Management Plan. No data has been presented on the impacts of aquaculture facilities to date. **There has been no systematic documentation or assessment of individual or cumulative impacts on marine debris, benthos, horseshoe crabs, birds, eelgrass, or other resources potentially impacted.** Since there is no program of baseline and follow up monitoring in place, there is no mechanism to objectively assess individual or cumulative impacts.

The MAPP is focused on guiding commercial aquaculture operators on how to obtain permits (www.massaquaculturepermitting.org/). The web tool and resources developed through MAPP provide overviews of the various permitting processes. These materials do not provide analysis or guidelines on how to avoid and minimize impacts to coastal or marine resources and wildlife, other than referring to other, pre-existing permitting processes. The BMP document on the state's website (www.mass.gov/service-details/aquaculture) is more than a decade old. It also is focused primarily on "how to" for aquacultural proponents, with only brief mentions of habitat and wildlife considerations, with references to the agency permitting processes.

Proposed SRP: The SRP would exempt new shellfish aquaculture projects from MEPA review if the project is under 2 acres in size, and provides for simplified notification procedures for projects between 2 and 10 acres in size, eliminating filing of an Environmental Notification Form and opportunity for public comments through MEPA. Eligible projects are those where the only state permit required is the DMF Section 57 Certification. However, a footnote in the proposed SRP provides that if it is determined after the Section 57 Certification is issued that other state permits are needed, the project can still escape MEPA review through a determination by the Agency and Secretary that no MEPA review is required. This could eliminate opportunities for public review through MEPA even if a permit is subsequently required such as a 401 Water Quality Certification, a permit under the Massachusetts Endangered Species Act, or a Superseding Order of Conditions from the Department of Environmental Protection (DEP) on a wetlands appeal.

Eligible projects are those under 322 CMR 15.04(1)(a)3. and 15.04(1)(b)1 that are "an open water system with minimal structures and no feeding" for "Shellfish." The definition of "Minimal Structures" in the DMF regulations are those that do not require an Individual Permit from the U.S. Army Corps of Engineers under the Massachusetts General Permit². The Army Corp permit allows "the installation of buoys, floats, racks, trays, nets, lines, tubes, containers, and other structures" without the need for an Individual Permit. The proposed SRP refers to the use of "boxes, trays, pens, bags, or nets."

Impacts of Concern: While the DMF regulations define these projects as involving "minimal structures," the cumulative impacts of these structures and devices is likely in fact more than minimal. Impacts may include habitat displacement and unintentional release of plastic debris into the marine environment, which has been observed around some aquaculture sites. The proposed Aquaculture Description Form includes a section on bird deterrence plans for floating aquaculture. No information has been submitted on the impacts of these measures on birds or the environment (e.g. the use of zip ties is mentioned, and these may result in plastic debris). Impacts on eelgrass including interference with potential reestablishment of former eelgrass beds should be considered. In addition, it should be noted that some intertidal projects are being accessed by ATVs or pickup trucks, and the impacts of those activities (e.g. compaction, effects on benthos, disturbance of breeding or staging birds) have not been assessed in a systematic way.

² <https://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/MA/PN-GPFinal-RevApril2018.pdf?ver=2018-07-31-142949-100>

Proposed Cumulative Impact Summary is Inadequate: The proposed SRP would require new projects to submit standard information on a DMF Aquaculture Description Form. We support the use of a standard form to gather and compile information on project locations, dimensions, gear types, and practices. **This will not, however, provide information sufficient for DMF to prepare a cumulative impacts summary, since there will be no monitoring of the impacts of these projects on resources.** Furthermore, the proposed process would be conducted solely by DMF and the project proponents, without opportunity for input from the public or local conservation commissions. It is unclear whether other agencies such as the Natural Heritage and Endangered Species Program (NHESP), DEP, or the U.S. Fish and Wildlife Service will be consulted in this cumulative assessment. The SRP is proposed as a one-year pilot, but with the possibility of extension for indefinite periods of time with approval of the Secretary. There is no provision for public dissemination of the cumulative summary after one year or future dates, nor any opportunity for public comment.

In conclusion, Mass Audubon recommends that DMF conduct a planning process and develop BMPs, consistent with the Massachusetts Ocean Management Plan. This should be conducted through an open and inclusive public planning process, which could utilize the Programmatic Review provisions in the MEPA regulations. The entities involved in this planning should be broadened from the existing MAPP participants, to include additional expertise on habitat and wildlife from federal and state agencies, nonprofit organizations, and academia. Following completion of a plan that identifies locations and BMPs to minimize conflicts with coastal and marine natural resources, MEPA review for projects consistent with that plan could be streamlined or in some instances potentially eliminated. However, this SRP is premature at this time given the lack of information on existing and potential future individual and cumulative impacts and BMPs to avoid, minimize and mitigate those impacts.

This regulatory review process should also address streamlining for shellfish restoration projects, including a permitting pathway for projects where the primary goals are for habitat restoration and climate resilience rather than commercial harvesting.

Mass Audubon would welcome the opportunity to engage with DMF and other organizations to provide further input.

Sincerely,



E. Heidi Ricci
Director of Policy and Advocacy

Cc: Christian Petitpas, DMF
Lisa Rhodes, DEP
Jon Regosin, NHESP
Eve Schluter, NHESP
Dorothy McGlincy, Massachusetts Association of Conservation Commissions



Page Czepiga
Assistant Director
Massachusetts Environmental Policy Act

August 30, 2022

Submitted via MEPA public comment portal

RE: Special Review Procedure Request #16583, "Shellfish Aquaculture"

Dear Ms. Czepiga,

Thank you for the opportunity to comment on this request for a Special Review Procedure for siting of shellfish aquaculture. The Massachusetts Bays National Estuary Partnership has a long-term investment in the protection of coastal habitats in Ipswich Bay, Massachusetts Bay, and Cape Cod Bay, dating to the designation of the area as an Estuary of National Significance under Section 320 of the Clean Water Act. With this designation, we are mandated to develop a Comprehensive Conservation and Management Plan (CCMP), including targets for coastal habitat extent and condition. MassBays recently completed a process to determine achievable goals for eelgrass extent and improved health which are illustrated in our Ecohealth Tracking Tool (www.MassBaysEcohealth.org), and will be incorporated into a final CCMP later this year.

We are concerned that the SRP as proposed runs directly counter to the potential for expansion of eelgrass by natural or assisted restoration.

During the May 20th Shellfish Advisory Panel meeting (accessed via the recording provided in the filing), the current process for certification of aquaculture licenses was described as a burden for smaller farmers. Several references were made to the 26 pages plus attachments required for applicants. We agree that this can be a barrier, and suggest that rather than simply reducing the number of pages required to a bare minimum, the SRP should provide a more focused review process. In this way, reviewers will have documentation of potential beneficial and adverse impacts to nearshore habitat, especially eelgrass, a designated Special, Sensitive, or Unique (SSU) habitat under the Massachusetts Ocean Plan.

Eelgrass communities form landscapes of varying size and density from individual shoots, to discrete patches, to expansive meadows. These communities undergo continuous transformation due to a host of environmental conditions, and they can expand, contract, appear, and disappear along a temporal scale that ranges from annual to decadal.^{1,2} Winter storms, acute water quality impairment events, natural temperature fluctuations and physical disturbances can significantly influence the extent and density of a meadow in any given year. To rebound after disturbance, the meadow can recolonize via seed dispersion (generally within 50 m of parent plants³) or by lateral clonal expansion which averages a 16 cm/yr expansion rate.⁴ If a farm is installed in an area currently devoid but historically suitable for eelgrass, the eelgrass is unlikely to recolonize if aquaculture equipment is occupying the area, and if access/operations routinely disturb the sediment.

Shoot density, or the number of eelgrass plants in a given unit of area, is a confounding component of eelgrass mapping and resource management. Studies have documented that eelgrass patches of any density are associated with increased biodiversity and abundance.⁵ Still, there is currently no regulatory definition of an eelgrass meadow in Massachusetts, much less one that describes the meadow based on density or patchiness metrics. This results in reduced resource protection when activities are proposed in

We envision a network of healthy and resilient estuaries, sustainable ecosystems that support the life and communities dependent upon them.

the low-density, difficult-to-detect portions of the meadow that are the most likely areas to be in a state of temporal flux.

Unfortunately, our ability to take these characteristics into account in Massachusetts waters is constrained by a lack of frequent eelgrass mapping or conditions assessments. For example, MassDEP maps eelgrass on a 5-year cycle, meaning that any one location is mapped only every five years. Beyond acreage, Massachusetts has no state-wide program for assessing eelgrass health, and yet this is an important indicator of overall habitat sustainability. Finally, Massachusetts does not have a standard protocol for determining eelgrass presence/absence at the site-specific level, especially with regard to density, thus leaving it up to applicants to determine whether a site impinges on established eelgrass habitat or not.

The proposed SRP does not take these habitat characteristics or mapping and assessment constraints into account. As a result we would anticipate multiple adverse impacts, including loss of existing, lower-density eelgrass beds; reduced potential for regrowth in historical eelgrass growing areas, and undocumented impacts.

We urge you to incorporate a more specific Aquaculture Description Form into the SRP application package. The form currently requests that proponents self-report eelgrass presence at their proposed site. As currently presented, the form could be an incentive for proponents to under-report or remove eelgrass to gain approval. To facilitate review of potential impacts, the form should be accompanied by a standard protocol to be used for assessing and documenting presence/absence of eelgrass in and adjacent to the proposed site. The protocol should include:

1. Recommended survey time-of-year to coincide with active eelgrass growth.
2. Preferred mapping method(s) and photo-documentation to assess eelgrass density. MassBays considers eelgrass of any density part of the meadow-community, a definition supported by the inter-agency Massachusetts Seagrass Working Group (MSWG). To address the need for a scientifically-based operational definition, the MSWG is currently drafting such a definition and plans to disseminate it along with management recommendations in a white paper.
3. Reference to eelgrass presence/absence in historic eelgrass maps. Assessment of the historical context of a site brings into consideration the complex above- and below-ground dynamics of an eelgrass meadow, and thus suitable areas can be better protected for future restoration, whether natural or intentional. We suggest that leases should not be certified in areas that showed eelgrass within the previous 10 years based on local and/or statewide mapping programs. This approach has precedence: Connecticut Department of Energy and Environmental Protections' Long Island Sound Blue Plan takes historic eelgrass sites into account for aquaculture siting decisions (<https://portal.ct.gov/DEEP/Coastal-Resources/LIS-Blue-Plan/Long-Island-Sound-Blue-Plan-Home>).

We also ask that you will consider the following recommendations prior to implementation of the SRP:

- The SRP should apply to all projects greater than 0.5 acres, rather than a 2-acre minimum. This standard aligns with the wetlands protection act requirements, and affords protection for eelgrass comparable to that for salt marsh. The higher minimum project size subject to review fosters a perception that eelgrass meadows are “less-than” habitat, when in fact eelgrass will likely become even more important to sustaining our coastal systems as climate change advances.
- The SRP should not be implemented until a process for tracking cumulative impact is in place, and a proposed limit to cumulative impact is drafted and shared for public comment. Simply documenting loss is not adequate for protection of the resource, nor is it sustainable resource management.

We envision a network of healthy and resilient estuaries, sustainable ecosystems that support the life and communities dependent upon them.

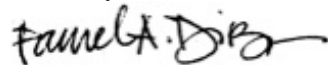
- During the Shellfish Advisory Panel meeting, reference was made to family members applying for adjacent aquaculture licenses. The SRP review should have a specific trigger for investigating potential segmentation of larger projects to avoid full MEPA review.

Finally, we understand that this approach is a one-year pilot. Any intention to implement the SRP beyond the pilot year should be subject to public comment. To facilitate assessment of its effectiveness, DMF should take up the following evaluation steps during the pilot year:

- Demonstrate and share results of DMF's protocol for documenting and assessing the cumulative impacts of aquaculture permits to eelgrass. The SRP should not be continued if we cannot track and respond to unacceptable impacts over time.
- Refine the standard protocol for site assessment (which we describe above, to be provided as an attachment to the Aquaculture Description Form) as needed.
- Prepare a summary report and map of leases granted under the SRP to accompany any proposal to continue implementation beyond the pilot year.
- Demonstrate outreach and enforcement efforts to prevent unauthorized expansion beyond certified aquaculture areas or placement in SSUs. This should include site visits – note that state regulators conduct their own site visits prior to licensing where eelgrass may be impacted in Florida (<https://www.fdacs.gov/content/download/76600/file/FDACS-P-01758-Shellfish-Aquaculture-Leasing-Process-TBo6.pdf>), New Jersey (https://www.nj.gov/dep/fgw/pdf/marine/shellfish_leasing_policy_atlantic.pdf), and Rhode Island (personal communication, Coastal Resources Management Council).
- Partner with researchers to monitor changing conditions in adjacent eelgrass (positive or negative) for a subset of leases, to evaluate the effectiveness of the 25' buffer and document potential benefits to eelgrass of aquaculture installations.

Thank you again for the opportunity to comment. We look forward to working with you to advance aquaculture siting that is sustainable not only for shellfish production, but for the larger estuarine system.

Sincerely,



Pam DiBona
Executive Director

Citations

¹Frederiksen, Morten & Krause-Jensen, Dorte & Holmer, Marianne & Laursen, Jens Sund. (2004). Spatial and temporal variation in eelgrass (*Zostera marina*) landscapes: Influence of physical setting. *Aquatic Botany*. 78. 147-165. [10.1016/j.aquabot.2003.10.003](https://doi.org/10.1016/j.aquabot.2003.10.003).

²Morten Frederiksen, Dorte Krause-Jensen, Marianne Holmer, Jens Sund Laursen. (2004) Long-term changes in area distribution of eelgrass (*Zostera marina*) in Danish coastal waters. *Aquatic Botany*. 78(2) 167-181. [10.1016/j.aquabot.2003.10.002](https://doi.org/10.1016/j.aquabot.2003.10.002).

³Ruckelshaus, M.H. (1996). Estimation of genetic neighborhood parameters from pollen and seed dispersal in the marine angiosperm *Zostera marina*. *Evolution* 50(2):865-864. [10.1111/j.1558-5646.1996.tb03894.x](https://doi.org/10.1111/j.1558-5646.1996.tb03894.x)

⁴Olesen, Birgit & Sand-Jensen, K. (1994). Patch dynamics of Eelgrass *Zostera marina*. *Marine Ecology-progress Series - MAR ECOL-PROGR SER*. 106. 147-156. [10.3354/meps106147](https://doi.org/10.3354/meps106147).

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⁵Washington State Department of Natural Resources. (2013). Operational Definition of an Eelgrass (*Zostera marina*) Bed. Appendix J [Technical Memorandum](#).

We envision a network of healthy and resilient estuaries, sustainable ecosystems that support the life and communities dependent upon them.

Bethany A. Card, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Aquaculture Special Review Procedure

August 30, 2022

Dear Secretary Card,

Thank you for your leadership on coastal restoration and aquaculture.

I am writing to respectfully submit this letter in general support of the Division of Marine Fisheries' (DMF) request that the Executive Office of Energy and Environmental Affairs (EEA) authorize the establishment of a one-year pilot Special Review Procedure (SRP) for certain aquaculture projects. We believe that this pilot program will ensure environmental safeguards related to aquaculture development while fostering permitting efficiencies for a critical sector contributing to ecosystem recovery and the blue economy.

The Nature Conservancy (TNC) is an international conservation organization working to deliver lasting solutions to complex environmental challenges that result in a world where people and nature thrive. We know that coastal resources around the globe and here in Massachusetts are heavily utilized and impacted by land use practices and nearshore development. TNC continues to work toward scaling interventions that address coastal environmental degradation. Our work has focused on advancing nature-based solutions including shellfish restoration and more recently harnessing the power of the aquaculture industry to deliver positive environmental outcomes, namely water quality and functional habitat improvements (www.nature.org/massaquaculture).

TNC respectfully requests that the pilot SRP, if implemented, undergo a formal review that engages stakeholders to help inform any future action and adaptive management. Additionally, we request that the SRP be utilized as an opportunity for learning and developing best management practices, particularly related to cumulative impacts of aquaculture-environmental interactions. We request EEA provide additional resources, such as full-time staff, to DMF or other EEA agencies or partners that are necessary to ensuring cumulative impacts research, program review, a transparent process, and stakeholder input.

The scale of the environmental challenges facing our coastal communities and environment is only growing and efficient permitting for projects that result in positive environmental outcomes is critically important. Should the aquaculture pilot SRP prove beneficial, we request that information gleaned from the process be incorporated into ongoing efforts to improve permitting processes and efficiencies for ecological restoration projects.

In a best-case scenario, the pilot SRP would introduce efficiencies in permit review for environmental impacts from aquaculture industry development -- a benefit to project proponents and permit reviewers, alike. Please accept this letter of general support for establishing an

aquaculture pilot SRP, with suggestions for its implementation and consideration of other project types, to improve environmental permitting efficiencies. Thank you for your time and consideration. Please feel free to ask any questions. I can be reached at stephen.kirk@tnc.org.

Respectfully,

A handwritten signature in black ink, appearing to read "Stephen Kirk", with a stylized, cursive script.

Stephen Kirk

Director, MA Coastal Program

The Nature Conservancy

Stephen.kirk@tnc.org 508-274-0775

Aquaculture SRP

Nancy Civetta <Nancy.Civetta@wellfleet-ma.gov>

Tue 8/30/2022 4:11 PM

To: MEPA (EEA) <mepa@mass.gov>

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Card:

The Special Review Procedure (SRP) seems like a good way to collect needed information about new proposed aquaculture sites and provides a seemingly more efficient and easier way to proceed for most folks looking to get into the aquaculture business. We agree that the process needed simplification and believe that the proposed SRP achieves that goal. We hope that the cumulative impacts section that DMF will provide by working with the municipality and project proponents will not present any obstacles to what should turn out to be a less complicated and more prompt process. We thank you for your efforts in making this process a way to honor the needed public participation with transparency and accountability yet through a more timely and accessible procedure for the applicants. We appreciate your support of the aquaculture industry, which in Wellfleet in 2019 was worth close to \$8M to the town's shellfishing community. Shellfishing is the largest year-round contributor to our local economy and providing more manageable avenues to spur the next generation to become involved in it is a win for everyone, including the state.

Sincerely,
Nancy Civetta

Nancy Civetta
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