

# Shellfish Advisory Panel

## Business Meeting Minutes

November 12, 2025

John Curtis Free Library, Hanover, MA

**Shellfish Advisory Panel:** Bob Glenn (Acting Chair, Division of Marine Fisheries), George Delaney, Alex Hay, Allen Rencurrel, John Towes, Amy Croteau, Seth Garfield, Dale Leavitt, Renee Gagne, Josh Reitsma, William Doyle, Ron Bergstrom, Steve Kirk, Sean Bowen (Department of Agricultural Resource – Proxy), Nate Corcoran (Department of Environmental Protection – Proxy), Michael Moore (Department of Public Health - proxy), Tyler Soleau (Office of Coastal Zone Management – Proxy), Natalie Blaise (Joint Committee on Agriculture House), Dylan Fernandes (Joint Committee on Agriculture Senate). *Absent:* Jim Abbott, Jim Peters. *Virtually:* Michael DeVasto.

**Division of Marine Fisheries:** Daniel McKiernan, Director; Chrissy Petitpas; Wayne Castonguay; Bob Glenn; Matt Camisa; Sean Terrill; Bradlie Morgan. *Virtual:* Jacob Madden; Ryan Joyce; Anna Webb; Florence Cenci; Melissa Campbell; Amber Woolfenden.

**Department of Public Health:** Eric Hickey

**Members of the Public:** Chris Sherman. *Virtual:* Erika Smith; Beth Gibbons; Helen Miranda Wilson.

## Introductions and Remarks

Division of Marine Fisheries (DMF) Deputy Director Bob Glenn stood in for Director Dan McKiernan as Shellfish Advisory Panel (SAP) Chair and called the meeting to order.

## Review of the March 2025 Meeting Minutes

Acting Chair, Bob Glenn, asked for a motion to approve the March 2025 meeting minutes as written. A clarification was raised on the spelling of Department of Agricultural Resources (MDAR) Commissioner Ashley Randle's name. **Ron Bergstrom moved to accept the amended minutes which was scoded by Seth Garfield. There was no objection. The amended minutes were approved.**

## Work Group Updates and Next Steps

### **Aquaculture License Transfer Work Group**

Director Dan McKiernan provided background on the Aquaculture License Transfer Work Group. The Work Group was created by the Massachusetts Shellfish Initiative to allow stakeholders to discuss issues concerning aquaculture license transfers.

Members include Amy Croteau, Bill Doyle, Alex Hay, Dale Leavitt, Ron Bergstrom, and John Reitsma.

Josh Reitsma updated the SAP on the Aquaculture License Transfer Work Group's recent meeting in November. The meeting focused on expanding the municipality survey to additional interested parties, such as industry members. Wayne Castonguay and Alex Boeri will review survey questions drafted by the Work Group before they are distributed. Director McKiernan recommended that the Work Group collaborate the DMF's Statistics Program to discuss distribution of the survey.

Additionally, the Work Group reviewed their white paper outline which aimed to compile best practices of aquaculture license transfers.

### **Shellfish Hatchery Work Group**

Director McKiernan then introduced the Shellfish Hatchery Work Group, which was originally formed in response to seed supply limitations. The group is comprised of Dale Leavitt, Josh Reitsma, Seth Garfield, Hannah Pearson, Emma Green-Beach, Sean Bowen, Steve Kirk and supported by Gabe Lundgeren and Wayne Castonguay of DMF.

Chloe Starr briefed the SAP on the Work Group's most recent meeting in November. During this meeting, the group expressed interest in creating training materials regarding seed handling best practices, including an educational video to be distributed to growers. The group will discuss this initiative over the winter.

Additionally, the group discussed a survey to be distributed to other states to better understand issues facing hatcheries, as well as DMF's shellfish grower database to inform hatchery needs and the added pressure on seed demand due to restoration efforts.

### **Wastewater Treatment Plant Model Peer Review**

Matt Charette, Director of the Woods Hole Oceanographic Institution (WHOI) Sea Grant Program, shared a presentation on the independent review of the use of hydrodynamic model, FVCOM, to assess wastewater dilution zones near shellfish growing areas. The

purpose of the review was to strengthen confidence in the models used to determine wastewater dilution in state waters following reclassification of shellfish areas.

Charette outlined the review of two FVCOM reports—Buzzards Bay and Scituate—and the parent model—NECOFS—conducted by three independent technical experts. The reviewers found that the FVCOM was robust and appropriate for this application, but suggested improvements. Suggested improvements include expanding validation (e.g., temperature, salinity, and circulation pathways); quantifying uncertainty spatially and temporally; and considering natural reduction of contaminants through physical, chemical, and biological processes.

Initial feedback from Dr. Changsheng Chen, the developer of NECOFS, and DMF were shared. Charette noted that Chen and DMF expressed interest in increased validation as funding may allow. DMF emphasized the model's application for long-term classification, rather than discrete closures.

Public comment on the review focused on the economic impact of reclassification, concerns over data gaps, and requests for an advisory group to facilitate communication across groups.

In response to the review, WHOI Sea Grant's recommendations included: (1) to expand model validation; (2) to conduct dye studies to verify dilution results; (3) assess uncertainty by modeling additional years and quantify variability; (4) improve documentation; (5) study contaminant processes and natural processes; (6) increase transparency and define how models inform regulatory decisions; and (7) create an advisory board.

Charette applauded DMF and UMass Dartmouth's efforts under limited resources and reiterated that the independent review confirmed that the modeling framework was appropriate.

Director McKiernan recognized WHOI Sea Grant for funding this independent review.

Chrissy Petitpas recognized the value of expanding model validation in order to improve public confidence in the results. To expand model validation, DMF is partnering with additional UMass Dartmouth scientists to conduct further research through water sample collection, observational data, and environmental data. Petitpas noted that the Environmental Protection Agency's dye study on the New Bedford Wastewater Treatment Plan may take place as early as spring 2026.

Petitpas added that Dr. Chen is willing to address assessment uncertainty, such as through modeling additional years, if funding allows. She noted that studying contaminant processes may not be an effective use of funding due to uncertainty surrounding the detection and health standards on various contaminants. However,

DMF sampling suggests that UV-treated wastewater treatment plants effectively remove many harmful microbes.

Petitpas and Bob Glenn explained that US Food and Drug Administration (FDA) prohibits harvest for direct consumption within areas where dilution is at or below 320:1 even with additional environmental testing. This threshold serves as a precautionary floor given the variety of contaminants that may exist in wastewater discharge but are not tested for (e.g., PFAS, pharmaceuticals).

Dale Leavitt voiced concerns about FVCOM's application to regulatory decisions given that it is limited to one year of data and advocated for additional validation. Leavitt made a motion for the SAP to establish an oversight body to address the application of this model in shellfish growing area classification. Seth Garfield echoed Leavitt's interest in developing an advisory committee to provide help inform these projects.

McKiernan explained that the SAP does not have any statutory authority over DMF's shellfish growing area classification program. He suggested DMF can address some of WHOI Sea Grant's recommendations, such as modeling additional years to assess uncertainty.

Glenn and Petitpas emphasized that the independent review was used to evaluate the application of the FVCOM to shellfish growing area classifications. The model serves as an alternative to establishing shellfish growing area classifications based on the 1,000:1 dilution threshold recommended by USFDA, so as to reduce the scale of closures around wastewater treatment plants while continuing to ensure public health. Leavitt voiced appreciation for DMF's efforts but reiterated his concerns.

Josh Reitsma clarified that Dr. Chen voiced interest in enhancing validation of FVCOM's application to classifying shellfish growing areas, which the independent review found to be appropriate.

Garfield then asked about the EPA's upcoming dye study. Charette noted that the dye study would not significantly differ from previous studies; however, remote sensing could help improve data analysis. Director McKiernan and Charette discussed the application of FVCOM in Massachusetts and the benefits it offers over dye studies.

The Director emphasized that funding restrictions state-wide limit DMF's capacity, but he reiterated interest in pursuing some of the independent review's recommendations.

Garfield then asked about opportunities to request additional funding. Director McKiernan, Garfield, Leavitt, and Natalie Blaise discussed the Commonwealth's budget process and how to best advocate for additional funding to address this issue.

## Shellfish Habitat Restoration Program and Planting Guidelines

Sean Terrill updated the SAP on DMF's Shellfish Habitat Restoration Program. Terrill highlighted threats facing oyster reefs and their coastal benefits as fish habitat and shoreline protection. He outlined DMF's work in oyster reef restoration as part of the Natural Resources Conservation Service (NRCS)-funded partnership between DMF, The Nature Conservancy (TNC), and Cape Cod Conservation District. These projects are farmer-supported through the Environmental Quality Incentives Program (EQIP).

Terrill recently developed an Oyster Restoration Suitability Index (RSI) to help determine the most appropriate sites for oyster restoration. The RSI considers habitat, logistics, feasibility of restoration, and community resources when determining suitability. Potential future projects include restoration Westport, Yarmouth, Dennis, and Wareham. Partners will work with interested municipalities and conduct site assessments before initiating the permitting process. Local growers interested in supporting restoration can benefit from this initiative through EQIP.

Terrill then sought guidance from the SAP on related issues. First, the Department of Environmental Protection (DEP) requires an Environmental Impact Report for projects developed near Environmental Justice (EJ) communities. This is an important consideration given restoration sites may be located near EJ communities. Next, Terrill outlined the growing concern of oyster shell scarcity and his hopes to develop a statewide recycling program. Lastly, DMF is weighing priorities when choosing oyster restoration broodstock—hatchery-bred disease-resistant strains or naturally selected wild strains.

Nate Corcoran (DEP) responded to Terrill's Environmental Impact Report concerns, noting that DEP is working to modify the water quality certification regulations to simplify the process. Corcoran and Terrill discussed potential solutions and the regulatory timeline that may impact this work.

Dale Leavitt voiced concern about oyster restoration sites as disease reservoirs and cautioned the installation of projects near existing aquaculture grant sites. Dan and Leavitt discussed the feasibility of a minimum distance requirement.

Leavitt and Terrill then discussed EQIP and funding allocations.

Wayne Castonguay then shared an update on the Shellfish Planting Guidelines. The guidelines were first published in 2011 with subsequent editions. Given the increased interest in oyster restoration in the Commonwealth, Castonguay convened a subgroup to draft an updated edition. This draft should be shared with the SAP for review in 2026.

Director McKiernan spoke on TNC's role in the initial development of these guidelines.

## Green Crab Summit and Expansion of Depletion Program

Wayne Castonguay discussed the issue of green crabs, an invasive species that cause significant harm to New England shellfish populations. A regional Green Crab Summit was held on the North Shore earlier this fall and a task force was developed through Senator Bruce Tarr. The meeting discussed a shift in industry goals away from eradication to expanding markets for the underutilized fishery. Castonguay described potential fishermen incentives, such as expanding the trapping program used in the Great Marsh to a pilot program on Cape Cod.

Director McKiernan and Bob Glenn discussed potential regulatory approaches to authorize the removal of green crabs and expand the underutilized fishery.

Bill Doyle asked about available data on green crab predators or landings. He voiced concern about their increase in recent years. Story Reed responded that landing data is available; however, biomass data is not.

## Shellfish Sale Transactions: New System

Story Reed updated the SAP on upcoming changes to the shellfish transaction system. In an effort to replace antiquated technology and failing software, DMF will not print any additional embossed shellfish sale transaction cards in 2026. Until a long-term solution is determined, DMF will require shellfish harvesters to carry either paper or electronic copies of their current valid permit, as well as a state-issued ID, when possessing and selling shellfish. Reed outlined potential solutions moving forward, such as the purchase of a new printer to produce non-embossed cards. He sought input from the SAP on their preference of hard cards or alternatives. The Massachusetts Environmental Police will also provide feedback to help determine what is needed for enforcement.

Ron Bergstrom and Amy Croteau voiced concern about the security and practicality of using paper permits in the field. Dale Leavitt asked whether transaction slips would still be required. Reed responded that these would still be required by the Department of Public Health (DPH). The group discussed potential solutions, such as hard cards with a QR code embedded to provide information on the harvester.

Doyle and Reed discussed the possibility of extending 2025 cards into 2026. This would, however, require a different approach for new permit holders.

Alex Hay and Eric Hickey discussed DPH's requirement of transaction slips. While these have made trace backs more efficient, they have created some redundancy in record keeping. There was some interest in making these forms electronic. Hickey, Castonguay, Reed, and Director McKiernan noted that this will be discussed in more detail at a future SAP meeting.

## Surf Clam Updates

Director McKiernan provided updates on DMF's efforts to modernize and simplify the spatial management program for the surf clam and ocean quahog dredge fishery. This would replace the historic contour line closures and discrete local closures with a state-wide closure polygon that approximates the 12' depth contour and is inclusive of all historic discrete local closures and mapped eel grass beds. This closure line would then be enforced through a vessel tracking system that can be integrated with navigation software.

Dan added that DMF is also proposing expanding seasonal closures in lower Cape Cod Bay and off Herring Cove to ameliorate user group conflicts; lifting the night closure for surf clamming from February 1 – April 30 to provide greater wintertime fishing access; establishing a process to more dynamically open other areas of state waters to surf clamming; and maintaining the prohibition on surf clam and ocean quahog dredging north of Point Allerton in Hull.

## DMF Shellfish Program Updates

### **2025 and 2026 FDA Program Element Evaluation Reports (PEER) and Risk Assessment Risk Management (RARM) Reviews**

Matt Camisa provided an update on the FDA PEER and RARM Reviews. On the Growing Area PEER, the FDA found no new deficiencies or emerging concerns in the reviewed areas. Camisa anticipated that the presence of birds on aquaculture gear will become a growing issue and will likely be monitored more closely in 2026. He then shared the areas that will be reviewed in 2026.

### **Massachusetts Shellfish Officers Association (MSOA) Training Class**

Camisa and Director McKiernan then discussed the MSOA training course that will be taught through the Cape Cod Community College (4C's) starting in 2026. The 80-hour course was previously provided in collaboration with Massachusetts Maritime Academy. 4C's will offer it as a 3-credit course with both in-person and pre-recorded lectures. Dan added that the course should allow new constables to gain foundational training before or soon after starting work. Director McKiernan applauded the MSOA's efforts on this course. He recognized the 2025 recipient of the David Belding Award will be Henry Lind, a previous constable.

Renee Gagne noted that the course will initially be offered to active constables to address the training backlog, but she hoped it could be provided annually and open to

new constables and others in the future. She suggested future discussion on whether the course will be mandated or just recommended.

### **Vibrio and Campylobacter Control**

Alex Boeri briefed the SAP on shellfish-related illnesses and cases. In 2025, there were 28 single source cases and 15 multi-source cases of *Vibrio*, which led to closures in Plymouth Bay and in Pleasant Bay. Wellfleet was also threatened by closure in September. There were 19 cases of Campylobacter and five outbreaks. Boeri outlined differences in how closures are determined concerning *Vibrio* and Campylobacter.

Boeri voiced concern about Campylobacter cases growing in the future. He applauded DPH for their effort to complete necessary investigations in 2025, resulting in no Campylobacter closures.

Leavitt, Boeri, and Garfield discussed the timeline of closures following illnesses and criteria for reopening.

Garfield and Petitpas then discussed the next *Vibrio* control discussion between DMF and DPH.

Boeri outlined the risks associated with birds on floating aquaculture gear and emphasized that bird deterrents should be used. He suggested the SAP consider best practices for bird deterrents, as there is uncertainty in the industry.

Leavitt asked about submerging floating gear to help mitigate any consequences of birds on gear. Boeri responded that this has been considered but is not a compliance solution.

Josh Reitsma and Bill Doyle discussed bird deterrents. Doyle remarked on the effectiveness of sound wave generators. Boeri notes that passive deterrents are generally preferred over active deterrents.

Garfield and Chris Sherman of Island Creek Oysters then both suggested enhanced communication with aquaculturists concerning closure notices, particularly considering the *Vibrio* closures in Duxbury, Plymouth, and Kingston earlier this year. Sherman thanked DMF for their efforts in this process. Petitpas and Boeri described how closure notices are distributed through towns and constables to be relayed to the appropriate growers. Legal notices are also distributed to growers. Boeri added that these processes can be complicated by concurrent outbreaks. Petitpas and Boeri recognized that there are opportunities to enhance communication.

## **Depuration Fishery Status**

Wayne Castonguay updated the SAP on the Commonwealth's depuration fishery. Castonguay and Bob Glenn explained how DMF's depuration plant in Newburyport closed due to catastrophic coastal erosion. Interested fishers can utilize an alternative facility in Eliot, Maine with support from DMF.

Castonguay noted that with improving coastal water quality, especially around Boston, there will be less areas available for the depuration fishery. He then shared that certain areas of outer Boston Harbor will be re-classified in 2026. These areas were historically part of the depuration fishery and will be open to shellfishing for direct consumption for the first time.

## **Legislation Updates**

Castonguay then provided an update on shellfish-related legislation. At the federal level, the QUAHOGS Act aims to address and better understand wild shellfish populations. In Massachusetts, there are several bills to address Combined Sewage Overflows (CSO), aquaculture and agriculture, and the shellfish environment.

Ron Bergstrom commented on issues facing the shellfish industry, such as low prices for wild shellfish and high cost of fishing and living near coasts.

## **2026 Interstate Shellfish Shippers Conference (ISSC) and Northeast Shellfish Sanitation Association Meeting (NESSA)**

Eric Hickey first shared updates on the ISSC, which meets every two years to review model ordinances and inform regulations. The Executive Board will meet again in 2026 following an October meeting to accommodate federal agencies, who were unable to attend in the fall due to the government shutdown. Grants secured by the ISSC will move forward as planned through the next fiscal year. A *Campylobacter* purge study, aiming to examine *campylobacter* purging under submergence, will be further discussed at a future ISSC meeting. Additionally, the 2025 biennial meeting will likely be moved to early 2027. Hickey shared that Keith Skiles, the ISSC director, recently announced his retirement, and a successor will be sought shortly.

Hickey then described some challenges facing the ISSC under federal changes and government shutdowns: the Interstate Certified Shellfish Shippers List is not being updated, and the FDA is not able to provide technical assistance. However, the PEERs review is still tentatively scheduled.

Hickey shared that NESSA will meet in April 2026 in Maine. He encouraged SAP and industry members to attend.

## Other Business

### Upcoming Meeting Dates

Wayne Castonguay shared that SAP's next meeting will be held in March or April 2026. There were no objections.

Director McKiernan added that if the SAP would like to draft a letter on behalf of the group, Bill Doyle, as the appointee from the Marine Fisheries Advisory Commission, could be a good person to lead this.

Bill Doyle asked for a motion to draft a request for funding outlining SAP's critical needs: hydrodynamic modeling, validation studies, and the necessary staff to complete the work. **Steve Kirk made the motion, and Seth Garfield seconded the motion. There were no objections to the motion. Sean Bowen abstained.**

### Future Meeting Agenda Items

Director McKiernan asked for any future meeting agenda items. There were none.

### Public Comments

Director McKiernan asked for public comments. There was no public comment.

### Adjournment

**Bill Doyle made a motion to adjourn, and Seth Garfield seconded the motion. The meeting was adjourned.**

### Meeting Materials:

- November 2025 Shellfish Advisory Panel Meeting Agenda
- March 2025 Shellfish Advisory Panel Meeting Draft Minutes
- WHOI Sea Grant Independent Technical Review of FVCOM Modeling Presentation
- DMF Oyster Reef Restoration Presentation
- DMF Shellfish Planting Guidelines Update
- DMF Green Crab Update
- DMF Future of Shellfish Transaction Card Presentation
- DMF Statutory Amendment Resolving WPA and Fisheries Management Presentation

- DMF Surf Clam Spatial Management Pilot Program Presentation
- DMF Audit Recommendations Presentation
- DMF Vibrio and Compliance Presentation
- DMF Depuration Fishery Updates
- DMF Legislative Updates
- DPH ISSC and NESSA Updates