

**SHELLFISH ADVISORY PANEL  
NOVEMBER 15, 2022  
JOHN C. CURTIS PUBLIC LIBRARY  
HANOVER, MA**

**In attendance:**

*Shellfish Advisory Panel:* Daniel McKiernan, Chair (DMF); Lisa Rhodes (DEP); Sean Bowen (DAR); Jim Peters (Indian Affairs); Eric Hickey (DPH); Josh Reitsma, Allen Rencurrel, Dale Leavitt, Renee Gagne, Ron Bergstrom, Jim Peters, Steve Kirk, Alex Hay, Bill Doyle. *Absent:* Jim Abbot; Bob Colby; Amy Anne Croteau; Michael DeVasto; Mike Trupiano; Lisa Engler (CZM); and House and Senate Chairs on Environment, Natural Resources, and Agriculture

*Division of Marine Fisheries:* Kevin Creighton, Jeff Kennedy, Chrissy Petitpas, Tom Shields, Jared Silva, and Matt Camisa

*Members of the Public:* Mark Begley

**INTRODUCTIONS AND ANNOUNCEMENTS**

DMF Director Daniel McKiernan, who serves as the Shellfish Advisory Panel's (SAP) Chair, called the November 15, 2022 business meeting to order. He provided a brief history of the SAP and an overview of their mission and purpose. He explained his intention to convene the SAP at least three times annually (winter, fall, and spring) to brief the public body on the status of DMF's Shellfish Program, critical shellfish management issues in Massachusetts, and happenings at the Interstate Shellfish Sanitation Conference (ISSC).

Today's meeting would feature: an update on the Special Review Procedure (SRP) for Massachusetts Environmental Protection Act (MEPA) review of aquaculture siting; a report from the SAP's Bulk Tagging Sub-Committee; discussion on the upcoming ISSC meeting in March 2023; and a briefing on a series of issues being worked on by DMF's Shellfish Program.

**REVIEW OF NOVEMBER 15, 2022 BUSINESS MEETING AGENDA**

No changes to the agenda were requested.

**REVIEW AND APPROVAL OF MAY 20, 2022 DRAFT BUSINESS MEETING MINUTES**

There were no changes to the draft May 20, 2022 SAP business meeting minutes. **Dale Leavitt made the motion to approve the May 20, 2022 business meeting minutes. Ron Bergstrom seconded the motion. The motion passed unanimously.**

## **SPECIAL REVIEW PROEDURE FOR MEPA REVIEW OF AQUACULUTRE SITING**

Chairman McKiernan reminded the SAP they reviewed the draft SRP at the May 20, 2022 business meeting. The draft document was filed in the August 2022 Environmental Monitor. Six comments were received. The comments were generally supportive of the process, but there was some additional interest in further streamlining the process to a single application. DMF was skeptical the process could be rendered down to a single application, particularly given federal oversight by the Army Corps of Engineers (USACE).

The final SRP was adopted by MEPA on September 9, 2022. There was one change from draft to final and this was to include eel grass maps as part of the SRP filing. GIS shapefiles depicting DEP's eel grass maps are contained in the online ShelfAST tool and can be used to meet this requirement.

The SRP is currently valid for only one year and will expire on September 9, 2023. During the interim period, the various state agencies involved in this process will review it and determine if it should be adopted on a more permanent basis. DMF highlighted one potential issue with its formal adoption is the ability to assess cumulative environmental impacts of aquaculture.

Chrissy Petitpas provided some additional details on how the SRP process streamlines MEPA aquaculture siting. For projects up to two acres, and only a DMF action is required, then MEPA can follow the SRP and a formal MEPA review is not required. For projects greater than two and less than 10 acres, and only a DMF action is required, then an alternative aquaculture description form is sent to MEPA for review—this is a paired down version of the ENF filing process. If the project is 10 acres or more, or requires an additional state action (e.g., c. 91 permitting), then the full MEPA ENF filing process is required.

Chrissy also noted that through the development of the SRP it came to the state's attention that DEP requires c. 91 permitting of bottom anchored gear that is set year-round. There remains uncertainty as to how to address this matter. Additionally, DMF and MEPA are working on several nuanced issues related to environmental justice review.

Chairman McKiernan asked Chrissy to further explain the two-acre threshold for SRP review. Chrissy explained that most new aquaculture sites in Massachusetts are between one and two acres, so in most cases the SRP will cover these new sites. However, larger and more intensive projects would still be subject to more extensive MEPA review and public processes.

Josh Reitsma and Seth Garfield raised concerns about potential c. 91 permitting for aquaculture projects. Chrissy acknowledged it would be a heavy lift to get all existing year-round operations permitted and she was uncertain as to how this may impact

existing grant holders. DMF was working with DEP to better understand potential impacts.

The Chairman took comment from the public. Mark Begley stated his interest in a single application process for the Commonwealth. DMF and DEP were hopeful the process could be streamlined into a single state application. However, it was noted that even if this were to occur it's likely federal and municipal governments would retain their separate applications.

## **REPORT ON BULK TAGGING SUB-COMMITTEE**

Chairman McKiernan stated an early priority established by the SAP was for the Commonwealth to further investigate expansion of bulk tagging allowances. At present, bulk tagging is only authorized for aquaculturists who are wholesale dealers and acting as the primary buyer for their own product. Accordingly, Dan established a sub-committee of the SAP to help the state work on the issue. The sub-committee included Alex Hay, Amy Croteau, Bill Doyle, Michael DeVasto, Seth Garfield, Dale Leavitt, Sean Bowen (DAR), and Michael Moore (DPH). The sub-committee met on November 9, 2022 to address this issue. DMF was now turning to the full SAP to review the sub-committee's work and provide feedback to DMF to inform final decision making for 2023.

DMF shellfish policy analyst, Tom Shields, was tasked with coordinating DMF's review of the bulk tagging question and the SAP's Bulk Tagging Sub-Committee. Tom surveyed other coastal states regarding their allowances for bulk tagging. The results of this survey were shared with the sub-committee and are described in detail in the November 4 memo. The sub-committee then reviewed the concepts shared by other states at their November 9 meeting. Tom stated the sub-committee's preference was to explore expanding bulk tagging opportunities for aquaculturists only and to consider a program model similar to what is allowed in Maine and Rhode Island.

DMF Shellfish Program Lead, Jeff Kennedy, added that DMF could potentially expand bulk tagging opportunities for harvesters through a pilot program implemented by a Letter of Authorization and Statement of Permit Conditions. A pilot program enables DMF to be nimble, address issues as they evolve, and fine tune the program in real time. On the dealer end, DPH needed further time to review its regulations and determine how a potential program could be accommodated. Eric Hickey suggested there may be a framework to do so through Intermediate Processing Plans.

Alex Hay thought expanding bulk tagging would ease the regulatory burden on harvesters. However, he expressed concerns that it may negatively impact traceability in commerce and create complications for wholesale dealers. Alex thought DMF's approach to the subject was thoughtful and he was optimistic a viable program could be developed.

Sean Bowen asked if DPH could authorize the activity though critical control points in the dealer HAACP plans. Eric Hickey stated there may be several ways for DPH to authorize the activity, but Intermediate Processing Plans were likely the best option.

Dan McKiernan asked if there was consensus among the SAP that any pilot program should be limited to shellfish aquaculturists and not include wild harvesters. There were no objections. Alex Hay noted that wild harvesters may fish multiple shellfish growing areas during a single tide, which would complicate bulk tagging.

### **INTERSTATE SHELLFISH SANITATION CONFERENCE UPDATE**

Jeff Kennedy reviewed the structure of the ISSC and explained how the body functions. The Conference meets biennially to review ongoing proposals and new proposals addressing shellfish sanitation. New proposals are sent to task forces where committees or work groups may be assigned to further study the question. Then, once the work is complete, the task force makes a recommendation to the General Assembly who votes on the recommendation. If the US Food and Drug Administration (FDA) does not concur with the General Assembly then the issue is sent to the Executive Board for resolution. Eric Hickey represents the regulatory interests of Region I (RI-ME) on the Executive Board. Eric Hickey then further detailed the interface between the Executive Board and the General Assembly.

The ISSC was scheduled to meet in Baton Rouge, LA from March 18, 2023 through March 24, 2023. Jeff reviewed the various task forces, committees, and sub-committees that are expected to meet. New proposals were due to the ISSC by close of business on November 18, 2022. The SAP would review relevant ISSC proposals at their late winter meeting in advance of the March conference.

### **FDA 2022 PEER AND RARM REVIEWS**

FDA conducts an annual Program Element Evaluation Report (PEER) for each coastal state's shellfish sanitation program. For DMF, this includes a review of the so-called "Growing Area Classification Element." For 2022, FDA focused on shellfish growing areas in Buzzards Bay and Chatham where there are classification issues related to mooring areas and wastewater treatment plants.

FDA recently provided the draft 2022 Peer to DMF. Jeff Kennedy did not see many areas of substantial concern. The peer highlighted two deficiencies that DMF was able to readily address. Additionally, eighteen other areas were highlighted by FDA as new and emerging areas of concern for DMF to begin to work to address.

One of the bigger emerging challenges is related to the frequency of water quality sampling and DMF's designation of certain growing areas as so-called "remote areas". There are more than 300 growing areas in Massachusetts and DMF designates about

40 shellfish of these areas as being remote. Many of these areas are difficult for DMF staff to routinely access (e.g., waters around Nantucket and Martha's Vineyard, Outer Cape Cod). With a remote area designation, DMF is only required to sample water quality twice per year, rather than five times. FDA is questioning the remote classification of most of these areas. If these areas were to lose their "remote" status, it would become difficult for DMF's shellfish classification program to adequately sample the area. Accordingly, DMF may have to close certain areas that cannot be sufficiently sampled.

Dan asked about FDA's evaluation of Chatham waters, particularly as it pertains to the impact of mooring areas on growing area classifications. Jeff stated Chatham is likely going to be the standard for how to address potential mooring area challenges. Ron Bergstrom provided a brief history on how Chatham developed its mooring area rules.

Steven Kirk asked about the status of DMF's shellfish classification program. Matt Camisa stated DMF currently has eight full-time classification biologists. Five are dedicated to sampling the South Coast, South Shore, Cape and Islands and three are dedicated to the North Shore. Jeff Kennedy stated that staff are currently maxed out maintaining existing shellfish growing classifications. Expanding sampling, particularly for offshore sites, poses a substantial resource challenge.

Jeff added New Bedford's wastewater treatment plant evaluation will likely trigger a reclassification of many areas in Buzzards Bay and around the Elizabeth Islands. The reclassification of certain areas from "Approved" to "Conditionally Approved" will require monthly sampling. Jeff noted Massachusetts' shellfish growing areas are small when compared to other states. Alex Hay and DMF staff then discussed the potential for DMF to reclassify current growing areas into larger growing areas to reduce the sampling burden.

Seth Garfield asked about the length of shellfish closures in Buzzards Bay related to the discharge from New Bedford's combined sewage overflows. Jeff stated that FDA requires a baseline 21-day closure for raw sewage overflows. DMF was looking to use Male Specific Coliphage (MSC) testing to determine if the state could justify a shorter closure period. DMF intended to discuss this work in greater detail under the next agenda item.

Similar to the PEER Review, FDA also conducts an annual review of the state's *Vp* Control Plan. This is referred to as the *Vp* Risk Assessment and Risk Management Evaluation (RARM).

Chrissy Petitpas addressed the harvester side of this year's RARM. She indicated FDA only highlighted one issue. This issue pertained to the use of residential ice machines and the ability to inspect these machines to ensure conformity with sanitation requirements (e.g., backflow prevention, cleaning, food grade tubing). To address this, DMF has required the submission of affidavits and schematics; however, FDA continues to want the states to conduct on-site inspections.

Eric Hickey addressed the dealer side of this year's RARM. The first issue was related to truck refrigeration. Massachusetts' *Vp* Control Plan relies on icing at harvest to cool shellfish and then shellfish are required to be brought down to temperature at the dealer facility within 10-hours. Trucks are used principally to keep product cold, not to cool product. However, FDA was concerned that trucks were accepting product before they were at temperature. In some instances, trucks had to idle for 45 minutes before they reached the temperature standard. Second, there was some concern that individual dealer HACCP plans were not up-to-date with the current *Vp* Control Plan. Lastly, DPH may need to adjust its protocols/documentation for reporting *Vp* and other shellfish-borne illnesses (e.g., norovirus).

On the trucking issue, Alex Hay noted that dealer trucks are heading back and forth from the dealer facility to the landing site. Accordingly, they were not running for the extended periods of time necessary to bring refrigeration down to temperature to chill shellfish. Rather, chilling was accomplished by icing and then at the dealer facility. Eric agreed and added that Massachusetts also has idling laws that may prevent a dealer from running the vehicle as necessary to bring the refrigerator unit down to temperature.

Chrissy and Eric then briefly discussed the 2022 *Vp* season. FDA was generally satisfied with the way Massachusetts handled *Vp* outbreaks. While there were a large number of *Vp* illnesses this year, most of them involved oysters from a variety of sources and growing areas. Accordingly, DMF did not need to close any areas due to *Vp*. Chrissy then briefly discussed *Vp* surveillance work with the University of New Hampshire being funded by an FDA grant.

Seth Garfield asked about *Vp* in quahogs. Chrissy stated there was one confirmed case in 2022. This was likely the result of quahogs harvested for personal consumption and temperature abuse likely occurred. Seth asked if this may lead to a potential *Vp* Control Plan for quahogs. Chrissy stated this was not yet a concern as DMF has not had to close any areas due to a *Vibrio* outbreak in quahogs. Chrissy added that she would share DMF's *Vp* risk assessments for oysters and quahogs with the SAP.

Jim Peters questioned how information regarding best handling practices was conveyed to the recreational fishing public and tribal members. Director McKiernan explained that DMF relies on municipalities to educate and manage recreational fisheries. Renee Gagne noted Chatham provides education information to recreational harvesters with their permit. Dan noted this may be an issue for tribal members because they are not required to obtain municipal permits, so they do not have this opportunity to interface with the local agent and obtain educational materials. Chrissy noted this was an area for enhanced education and outreach.

Alex Hay, Eric Hickey, and Chrissy Petitpas discussed potential public health risk posed by *Vv* and shellfish consumption. Eric Hickey noted it is uncommon to traceback *Vv* illness to shellfish consumption.

Seth Garfield and Eric Hickey discussed shellfish recall protocols for *Vp.* outbreaks. Eric described how ISSC is used as a clearing house to distribute information.

Chrissy and Eric also noted that FDA reviewed DMF and DPH's handling of the DSP bloom in Nauset estuary this past summer and were satisfied with how it was handled by both agencies.

## **WASTEWATER TREATMENT PLANT MODELING AND MSC STUDY UPDATE**

Chairman McKiernan provided some background information on this agenda item. Recent FDA Peers have focused on growing area classification around wastewater treatment plants. FDA requires the area around the outfall be classified as Prohibited and closed to shellfish fishing until a 1,000:1 dilution standard can be met. In many instances, this produces substantial spatial closures. This has been an area where DMF's shellfish classification program has been found deficient, and as a result, DMF has been required to downgrade classifications and close certain adjacent waters. As a result, there is substantial interest in developing site-specific data that may allow for the application of a lesser dilution standard thereby avoiding potentially large spatial closures.

DMF has contracted out work to Dr. Chen at the University of Massachusetts School for Marine Science and Technology to model local hydrography and the distribution of effluent from the wastewater treatment plants. Then the accusation of MSC in effluent in surrounding areas is being measured as an indicator of risk. Based on MSC concentrations, another dilution standard may be applied and when modeled this may reduce the spatial extent to which shellfish fishing may be impacted.

Jeff Kennedy provided a brief presentation on the work done for the North and South Rivers. DMF anticipates it may be able to use a 300:1 dilution standard for the Scituate wastewater treatment plant. This may allow DMF to open areas of the North and South River in the wintertime. This same approach will be applied to other growing areas adjacent to wastewater treatment plants. However, the extent to which this may impact the scale of closures may be influenced by how the sewage is treated; UV plants (like Scituate) reduce the presence of MSC to a greater degree than plants that use chlorine (like New Bedford).

Steve Kirk asked how other states were addressing this challenge. Jeff explained that Massachusetts is unique given its urban coastline and the volume of effluent being pumped out into near coastal waters by wastewater treatment plants. Accordingly, DMF was on the cutting edge of developing new tools to better assess risk and scale shellfish closures.

There was some discussion among the SAP members and DMF staff about performance standards and using tools such as citizen's science and in situ monitoring.

## **SURF CLAM MANAGEMENT UPDATE**

Chairman McKiernan provided some background information regarding the history of Provincetown's efforts to limit surf clam dredge fishing in waters around Herring Cove through its Conservation Commission and municipal Wetlands Protection Act authority. In recent weeks, a surf clam fishing interest filed a Notice of Intent (NOI) with the town to conduct dredge fishing activities in the regulated area. DMF was concerned about the precedent this may set for this fishery and asked the applicant to petition the town for a continuance on the review of its NOI application.

In the interim, DMF wanted to rekindle discussions with DEP and other personnel from the Secretariat of Energy and Environmental Affairs regarding how to best address this issue and harmonize regulatory authorities. Dan was also hopeful that the Provincetown Center for Coastal Studies would release their study into the impacts of surf clam dredging in Herring Cove.

Allen Rencurrel stated the area off Herring Cove was productive to surf clam dredging. He also did not expect the local attitude to the surf clam question would change and advocated a state action to solve the management issue.

Alex Hay stated he attended local Conservation Commission meetings on the subject and reported that there was some confusion regarding the fishing gear, specifically that hydraulic dredge gear was being misconstrued as being similar to hydraulic excavation gear used to dig channels.

Ron Bergstrom asked if the state had discussed this with municipal authorities. Dan stated DMF was waiting for the CCS study to be presented. McKiernan was hopeful the study would shed some light on the potential issues at play in Herring Cove and would inform future decision making. Ultimately, DMF was interested in resolving the authority issue at the state level and then working with the municipality to address relevant environmental concerns through DMF regulation.

Dan further discussed the NOI application with Lisa Rhodes from DEP. Lisa suggested DMF reach out to DEP's Southeast Regional Office to coordinate further discussions.

Jared Silva, Dan McKiernan, and Ron Bergstrom then discuss home rule over shellfish and how this does not apply to the commercial surf clam fishery.

## **OTHER BUSINESS**

Steve Kirk provided an update on The Nature Conservancy's (TNC) oyster reef restoration program in Massachusetts. With the collapse of the oyster market during COVID, DMF enabled TNC to purchase oysters from growers for restoration purposes. TNC was interested in more broadly pursuing restoration projects in Massachusetts and the USDA's Natural Resource Conservation Service is willing to fund the work. This



model was previously used in Rhode Island where it was well received. TNC was now looking to identify potential restoration sites in Massachusetts.

Chairman McKiernan asked if TNC had any communities in mind. Steve stated they have parameters for what constitutes a good site, but do not have a list of communities. Steve noted TNC needs to engage with stakeholders to flush out a potential project. Effectively, they would like to build a playbook for how to identify sites; have municipalities apply to DMF to conduct the restoration project; and obtain, relay, plant oysters. Dan and Steve then discussed state law and how it may limit the ability for a municipality to close an area for restoration.

Seth Garfield asked about the ability for DMF to reconsider the direct icing standards in the *Vp.* Control Plan. Chrissy Petitpas noted this is something DMF can consider for the future but is not likely something that can be accomplished for 2023. Eric Hickey suggested harvesters use an ice slurry. This method is less prescriptive than direct icing and is more effective for rapid cooling. Eric and Chrissy then provided some additional background. FDA requires there be enough ice to immediately begin cooling. However, when implementing the *Vp.* regulations, industry sought a more prescriptive direct icing metric to ensure compliance and codify best practices. FDA's best guidance for direct icing was to ice the bottom of the container and they layer ice between bags. Based on this, DMF established the standard of two inches of ice around bottom and sides of the container and three inches of ice between and on top of the bags.

Bill Doyle asked about the possibility for DMF to reconsider the seasonal (July 1 – September 15) one-hour time-to-icing requirement for the Three Bays and Katama Bay. Bill noted other areas of the state have a two-hour time-to-icing requirement. Chrissy and Eric agreed this is a prescriptive aspect of the state's *Vp.* Control Plan and DMF likely cannot amend the rule, as it was required based on seasonal *Vp.* illness outbreaks from these areas. Ron Bergstrom asked how these standards were developed. Chrissy stated the standards were based on work conducted by her predecessor, Chris Schillaci.

Eric Hickey noted the state's oyster industry has had its challenges with the implementation of the *Vp.* Control Plan over the years. However, the industry is seen as a leader nationwide. Jeff Kennedy added that despite some of the difficulties with the *Vp.* Control Plan, the oyster aquaculture industry is growing and doubled in size over the past five years. Alex Hay acknowledged that some of the *Vp.* Control Plan requirements are demanding, but it has been to the benefit of the industry; Massachusetts produces a high quality of product with a strong reputation. Industry has also effectively controlled *Vp.* illnesses and ameliorated potential loss of consumer confidence and insulated harvesters and dealers from litigation stemming from such illnesses.

Bill Doyle asked about the potential cost for Massachusetts to invest in a *Vp.* lab to better identify *Vp.* strains. Chrissy Petitpas stated this is not a pressing need for Massachusetts, as UNH's lab is sufficient to conduct this work. Renee Gagne noted that

while enhanced lab capacity may not be a critical need for *Vp.*, it is likely a critical need for biotoxin monitoring. Ron Bergstrom discussed potential lab capacity in Barnstable County. Steve Kirk noted enhancing in-state lab capacity was a goal set forth in the MSI's Strategic Plan and it was something the SAP should advocate for.

### **MEETING DOCUMENTS**

- November 15, 2022 Business Meeting Agenda
- May 20, 2022 Draft Business Meeting Minutes
- Shellfish Advisory Panel Bulk Tagging Sub-Committee Memo
- Certificate Establishing a Special Review Procedure for Aquaculture
- 2022 FDA Peer Review of the Growing Area Classification Element
- 2022 FDA Program Element Evaluation Report of the Risk Assessment and Risk Management Element

### **UPCOMING MEETINGS**

9:30AM  
March 2, 2023  
via Zoom