SHELLFISH ADVISORY PANEL
4:30PM
Monday, March 18, 2024
Via Zoom
Webinar ID: 845 8415 8262
Passcode: 218313

1. Introductions and Remarks (4:30 – 4:45)
    a. Director's Remarks
    b. Review of March 18, 2024 Business Meeting Agenda
    c. Review and Approval of November 20, 2023 Draft Business Meeting Minutes
2. Reclassification of Buzzards Bay Growing Areas (4:45 – 5:30)
3. DMF Shellfish Program Updates (5:30 – 6:00)
    a. DMF Personnel Update
    b. Status of Newburyport Depuration Plant
    c. Inquiry from Hingham/Hull to Upgrade Certain Areas for Harvest
    d. Discussion of Media Coverage of Shellfish Recalls
    e. Shellfish Sanitation Regulatory Updates
    f. Emerging Issues of Off-Site Culling at Wholesale Dealers
4. Planting Oyster Reefs in Prohibited Areas (S. Kirk) (6:00 – 6:15)
5. Other Business (6:15 – 6:30)
    a. Upcoming Meeting Dates
    b. Panel Member Comments
    c. Public Comments
    d. Adjourn

All times provided are approximate and the meeting agenda is subject to change.
The Shellfish Advisory Panel may amend the agenda at the start of the business meeting.

Future Meeting Dates

TBD

SHELLFISH ADVISORY PANEL
November 20, 2023
Via Zoom

In attendance:
Shellfish Advisory Panel: Daniel McKiernan, Chair (DMF); Alex Hay; Allen Rencurrel, Amy Croteau; Sean Bowen (DAR-Proxy); Bill Doyle; Lisa Rhodes (DEP); Dale Leavitt; Jim Peters; Josh Reitsma; Todd Callaghan (CZM-Proxy); Renee Gagne; Ron Bergstrom; Seth Garfield; Mike DeVasto; and Steve Kirk
Absent: Jim Abbot; Bob Colby; Mike Trupiano; Rebecca Rausch; *Lisa Engler; and Mindy Domb.*

Division of Marine Fisheries: Bob Glenn, Story Reed, Chrissy Petitpas, Jared Silva, Julia Kaplan, Matt Camisa, Gabe Lundgren, Ryan Joyce, Scott Schaffer, Terry O'Neil, Kaley Towns, Holly Williams, Melissa Campbell, Michael Blanco, Brianne Shanks, Flo Cenci, and Margaret Leary

Department of Fish and Game: Sefatia Romeo Theken, Deputy Commissioner

Department of Public Health: Eric Hickey

Members of the Public: Andy Reinhard, Bill Chace, Bradford Morse, Beth, Buddy Wilson, Charles Applegate, Chloe Starr, Dani Ewart, Erika, Jennifer Bender, Jess Katon, Laminaria Jones, James Cullen, Lynne, Margaret Leary, Mark Begley, Mark Howards, Michelle Letts, Paul Wittenstein, Ryan Joyce, Scott Lang, Shaun Wallace, Suzanne Phillips, and Tim Cox

INTRODUCTIONS AND ANNOUNCEMENTS

DMF Director Daniel McKiernan chairs the Shellfish Advisory Panel (SAP) and called the meeting to order. He welcomed everyone to the meeting and stated that there was a Marine Fisheries Advisory Commission meeting last Friday where the Belding Award was awarded posthumously to Mike Hickey. Dan touched on staffing shortages within the shellfish program and stated DMF is working to backfill several positions.

REVIEW OF NOVEMBER 20, 2023 BUSINESS MEETING AGENDA

No changes to the agenda were requested.

REVIEW AND APPROVAL OF APRIL 27, 2023 DRAFT BUSINESS MEETING MINUTES

There were no amendments to the April 27th business meeting minutes.

Chairman McKiernan requested a motion to approve the April 27, 2023 business meeting minutes. Dale Leavitt made a motion to approve the meeting minutes.

Amy Croteau seconded the motion. A roll call vote was taken, and the motion passed 14-0-1 with Bill Doyle abstaining.

Presentation from MEPA on Special Review Procedure for Aquaculture

Tori Kim provided the Shellfish Advisory Panel (SAP) with a presentation regarding the SRP for aquaculture in the state of Massachusetts. She covered various topics which included potential state permits for shellfish aquaculture and when MEPA is required for obtaining permits. The MEPA Special Review Procedure was also discussed, and Tori noted that the SRP was limited in scope and highlighted the projects that were not covered under SRP. Tori went into detail regarding the proposed 2nd Amended SRP under the MEPA SRP. She concluded her presentation by discussing next steps and provided a timeline regarding the SRP. She welcomed questions from the Panel.

Josh Reitsma clarified the types of gear that meet the standards of permanent versus temporary gear. Tori provided clarification regarding gear types and how they are classified.

Dale Leavitt asked for clarification on why MEPA is diverging from the Army Corps requirements. Tori stated there were several factors including cumulative impacts that contributed to the decision.

Dan McKiernan ensured the Panel was aware of how to comment on the proposed amendments to the SRP.

DMF SHELLFISH PROGRAM UPDATES

Constable Training Initiative
Grace Simpkins from WHOI Sea Grant provided the SAP with an update regarding a revamp to the shellfish constable training. She provided a brief history of the course as well as issues encountered with the course prompting the need for a re-vampment. Grace discussed a proposed course that would be hybrid with specific classes being held in-person to cut down on commute times for constables. She highlighted important components of the constable course which included networking opportunities and a repository of resources that constables could continually have access to. Grace welcomed questions from the Panel.

Dan McKiernan expressed strong support for a hybrid option as well as online modules for the constable training and stated he will work to see if there is a funding avenue through legislature. He advocated for less time between training offerings and stated that modules would solve that problem.

FDA Review Update
Matt Camisa provided the Panel with an update regarding FDA review updates. He stated that largest issue that came from the review process was non-compliant shellfish icing container concerns. Matt then provided an overview of 15 growing areas that were

evaluated which resulted in two deficiencies and two emerging concerns in Greater Boston Harbor 1. All of these concerns were addressed prior to the final PEER report and there are no new action items. He added that five past deficiencies were also resolved.

Growing Area Re-definition/Re-classifications
Matt Camisa provided a brief update for the Panel regarding growing area re-definition/re-classifications as well as reassignments of growing areas between offices. The management and monitoring of growing areas CCB39 through CCB47 and MB1 through MB10 will be transferred from staff in the New Bedford office to staff in the Gloucester office starting January 1, 2024. The classification project will be combining existing growing areas to reduce the sampling and report writing burdens where appropriate beginning with the center of Cape Cod Bay and the Center of Nantucket Sound. He also stated that remote status will be reviewed as requested by FDA.

Ron Bergstrom asked for clarification regarding the re-classification of the Monomoy area. There was discussion amongst Chrissy, Dan, Matt, and Ron regarding the change and the reasoning behind the change.

Shellfish Regulatory Updates
Chrissy Petitpas provided the Panel with an update regarding shellfish regulatory updates. First, *Vibrio* regulations at 322 CMR 16.07 need to be updated to be consistent with updates to the state's *Vibrio parahaemolyticus* (Vp) Control Plan. Updates include revised definitions of adequate icing and exempting harvesters from icing requirements if the primary buyer takes on the burden of icing at the landing site and within the time-to-icing window. Also, to eliminate any remaining confusion on the subject of using sanitary sources of ice (no ice rink zamboni ice) for all shellfish handling practices (including overwintering of oysters), DMF intends to amend the regulatory language at 322 CMR 16.00 to make clear that sanitary icing standards apply to all shellstock under all handling circumstances.

Chrissy then discussed the need for more precise identification of the shellfish harvest area on harvester tags and provided background on proposed regulation amendment to bring tagging requirements into compliance with the National Shellfish Sanitation Program Model Ordinance (Chapter VIII. Control of Shellfish Harvesting). Chrissy then moved on to discuss a regulation change codifying a blanket night closure on shellfishing. Current regulations only prohibit night harvest on aquaculture grants and shellfishing with mobile gear. Finally, Chrissy described a regulation amendment to 322 CMR 10 to require moderately contaminated shellfish harvested for depuration to follow DMF's Shellfish Depuration Plant digging schedule. Chrissy welcomed questions from the Panel.

Dale Leavitt expressed concern over the way the regulations will be written regarding icing. There was discussion amongst Chrissy, Eric Hickey, and Dale regarding the regulations and issues that occur with icing. Jared Silva added that these are proposed regulations that will go to public hearings where wordsmithing on the regulations can

take place. Jared stated that regulations can be supplemented with policies that set the precedent as to how DMF envisions the regulations being complied with.

Seth Garfield expressed concern over the costs of icing that shellfishers endure. He also highlighted a much lower level of reported sicknesses. He asked if fishers can use snow on their stored product. Chrissy stated that snow would not be a reliable source as the source needs to be from a potable water source. She expressed concern over snow being scraped up from sidewalks. Eric Hickey further emphasized the importance of icing.

Mike DeVasto discussed different scenarios and the need for consistency amongst the icing rules. He stated he will make this comment during the public comment period as well.

Ron Bergstrom stated that whichever icing method is going to be easiest for the growers but still as effective should be considered. He asked about icing studies and whether the results have shown one method is preferable. Eric provided an in-depth response and reiterated the current regulatory language.

Seth Garfield asked if growers would still be able to use their preprinted their tags. Chrissy provided clarification that the decimal growing area identifier can simply be added to the pre-printed tags

Mike DeVasto asked if growers are required to put their license site on the tags. He wanted clarification regarding the purpose of putting the site on the tag. Chrissy stated it is required in the CMR and clarified that the TOI on the sample tag in the presentation is supposed to be time of icing. Chrissy stated the purpose (in Mike's case) is not significant in his particular area, but DMF wants to know where the product is coming from and it helps when there are issues with tidal and intertidal areas.

Conor Byrne brought up an additional point that he would like to see included in the proposed regulations regarding required truck refrigeration to cool while clams are in transport to the Newburyport plant.

Surf Clam Management Update

Dan McKiernan provided the Panel with an update regarding surf clam management. He provided a background of the application of the Wetlands Protection Act to the commercial dredge fishery. He stated that there was a memo shared with the Panel which was an earnest attempt at describing the current situation as precisely as possible. Dan highlighted current authorities and DMF concerns regarding surf clamming. Dan discussed a study conducted by Center for Coastal Studies and provided the Panel with a background on the study and the subsequent results of the study. Dan discussed the extent of known eel grass beds and how DMF plans to modernize surf clam management. These plans include outfitting fishermen which vessel trackers so managers can figure out where fishing is taking place. Dan wrapped

up his presentation by sharing what DMF's desired outcome is regarding surf clam management.

Story Reed provided the Panel with a more in-depth presentation regarding the vessel tracker pilot program that the surf clam fishers are using. He discussed the proof of concept as well as the functionality of the trackers. Story spoke about georeferencing polygons that DMF staff are working to create based on the tracker data and welcomed questions from the Panel.

Allen Rencurrel asked how many units DMF are planning to pilot. Story stated that two boats are currently using the trackers and six boats have committed to using the trackers.

Alex Hay stated that he appreciated the memo and asked about what the next steps are. Dan McKiernan stated there is a meeting next month between DMF and DEP. DMF plans to continue with the tracker program. Dan also added that legislature may need to get involved to answer next-step questions. There was further discussion amongst Alex, Dan, and Lisa Rhodes (DEP) regarding surf clam management and wetlands as a resource.

PRESENTATION ON UPGRADING BIOTOXIN TESTING METHODS

Chrissy Petitpas provided the Panel with a brief presentation on funding ($472,424.00) DMF secured from the State Hazard Mitigation and Climate Adaptation Plan (SHMCAP) to purchase *High-Performance Liquid Chromatography* (HPLC) instruments and accessory equipment in order begin transitioning from the mouse bioassay method for PSP to the PCOX method. The new method will allow for more precise quantification of individual PSP toxins and the new equipment will enable DMF to implement NSSP approved methods for other marine biotoxins (e.g., ASP and DSP)

OTHER BUSINESS

Meeting Schedule
Dan McKiernan stated that the next SAP meeting will likely be held in February. It was agreed upon that the first week of February would be preferred for a virtual meeting.

Panel Member Comments
Mike DeVasto would like to have some discussion on nitrogen mitigation plans and whether there is a role for the state to play in the plans. Dan asked Mike to clarify what focus he would like the discussion to be on. Mike would like the focus to be on the impacts to the fisheries and the commercial market. Dan asked Lisa Rhodes if DEP could assist with the discussion or report on nitrogen mitigation plans. Lisa stated there are folks at DEP who could participate.

Dale Leavitt expressed concern over the loss of shellfish pathologists and stated there is a large need for a pathologist which is crucial to do restoration projects, ship product to the EU, and move oysters around. Dale recommended DMF work to institute a shellfish pathology lab. Dan asked for clarification on how these pathologists were typically paid. Dale provided clarification.

Seth Garfield asked when the focus groups will meet and stated he would like to re-visit bulk tagging. He asked if there was a specific list that contains a list of contact information of those who work on aquaculture within different departments. Dan took note of the request.

Ron Bergstrom stated that some buyers have stopped buying quahogs and expressed concern over a decrease in the market price.

Public Comments
Nancy Civetta asked if DMF could start quantifying small quahogs and oysters by the piece instead of by the pound. Story Reed stated that DMF could look into this.

ADJOURN

Chairman McKiernan requested a motion to adjourn the November SAP meeting. **Alex Hay made a motion to adjourn the November SAP meeting. The motion was seconded by Ron Bergstrom. The motion was approved by unanimous consent.**

MEETING DOCUMENTS

- March 18, 2024 SAP Business Meeting Agenda
- November 20, 2023 SAP Draft Business Meeting Minutes
- Shellfish Sanitation, Harvest, Handling, and Management Regulations Memo
- Surf Clam Management Update Memo
- MEPA Special Review Procedure for Aquaculture Presentation
- FDA Review Updates Presentation
- Growing Area Update Presentation
- Updates to Shellfish Sanitation, Harvest, Handling, and Management Regulations/Biotoxin Methods Presentation
- Surf Clam Vessel Tracker Pilot Program Update Presentation

UPCOMING MEETINGS

TBD

Shellfish Growing Area Reclassification Around New Bedford/ Fairhaven WWTP Outfalls

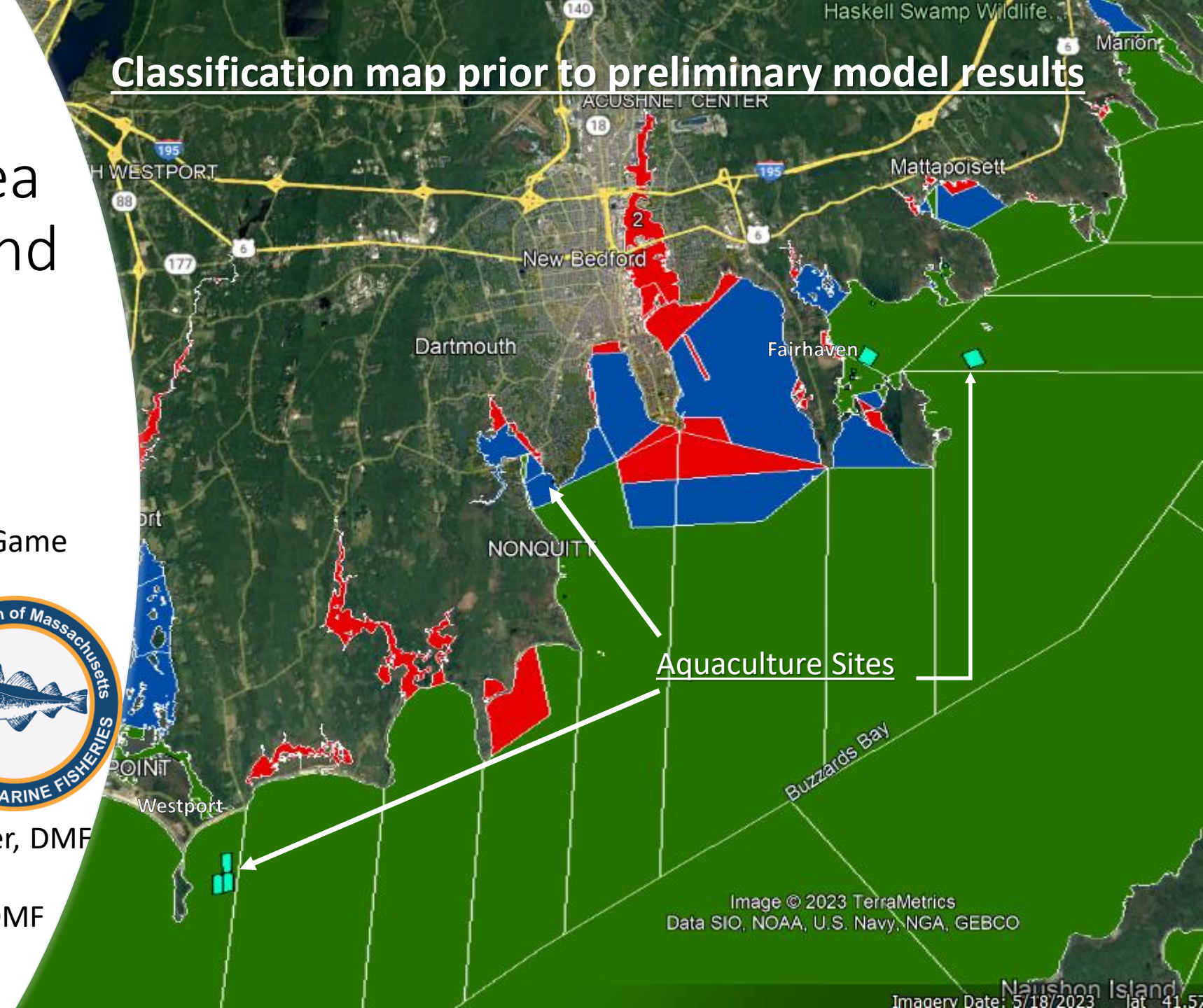
Massachusetts Department of Fish and Game

Division of Marine Fisheries

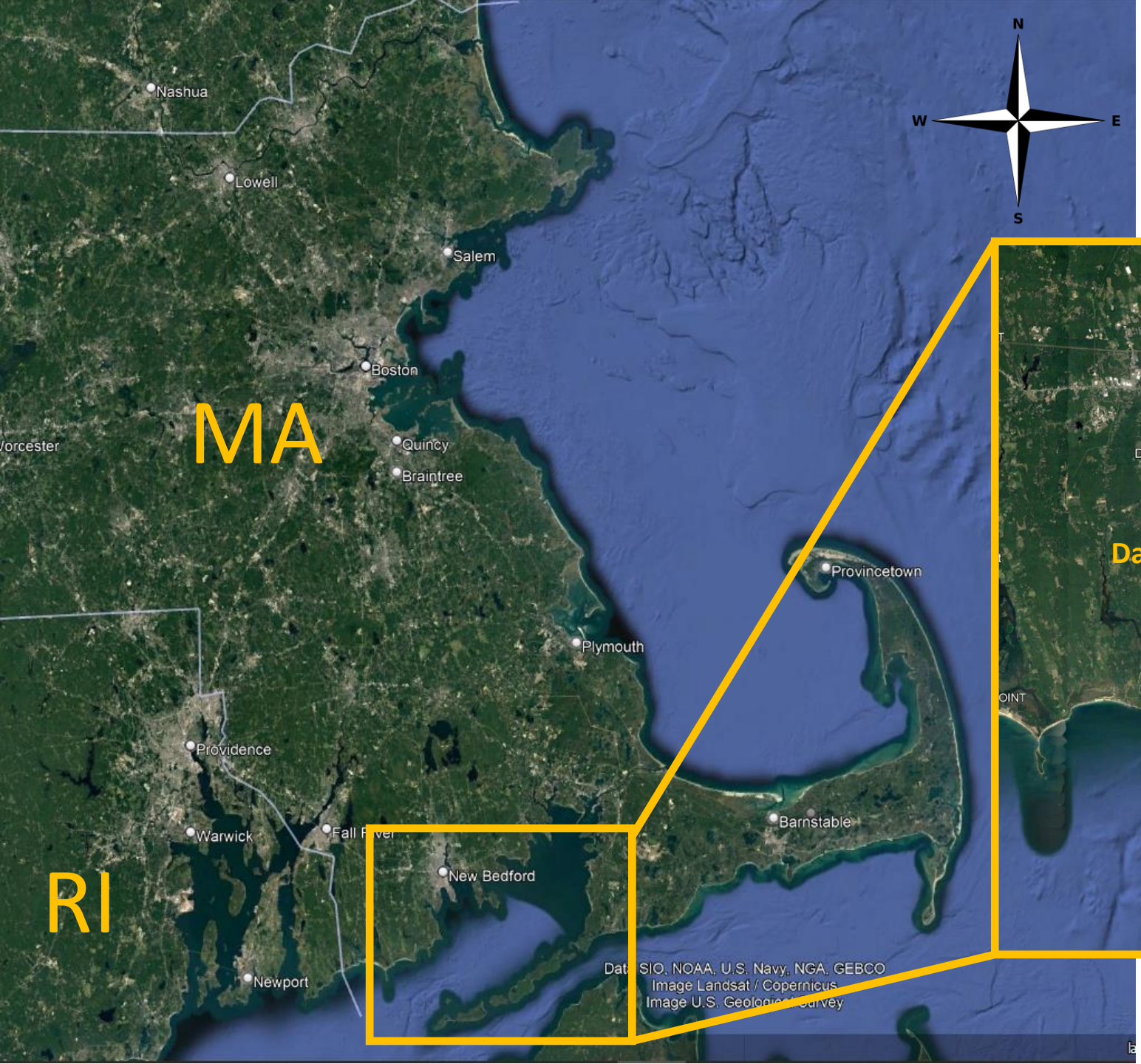
March 2024

Tom O'Shea- Commissioner, DFG
Dan McKeirnan- Director, DMF
Bob Glenn- Deputy Director, DMF
Christian Petitpas-Shellfish Program Manager, DMF
Matthew Camisa-South Shore
Classification Supervisor, DMF

Classification map prior to preliminary model results



Focus Area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Warwick
Barnstable
New Bedford
RI
Newport
Image Landsat / Copernicus


ACUSHNET CENTER
Mattapoisett
POCASSET
CATAUMET
NORTH FALMOUTH
Fairhaven WWTP outfall
New Bedford
Fairhaven
Dartmouth
WEST FALMOUTH
Dartmouth
NONQUITT
New Bedford WWTP outfall
Falmouth
WOODS HOLE
Buzzards Bay
Naushon Island
Gosnold
Makonikey
Tisbury
Vineyard Sound
Nashawena Island
CUTTYHUNK
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image © 2023 TerraMetrics

The National Shellfish Sanitation Program (NSSP) is a cooperative program consisting of states, US Food and Drug Administration (FDA), and industry partners who agree to accept and meet specific responsibilities in order to ensure the safety of molluscan shellfish in interstate commerce. Shellfish sanitation guidelines are outlined in the NSSP Guide for the Control of Molluscan Shellfish Model Ordinance. Model Ordinance or MO means that part of the most recent version of the NSSP Guide (Section II) that sets forth the requirements that states have agreed to enforce through their participation in the Interstate Shellfish Sanitation Conference (ISSC). The ISSC votes on all standards and language included in the NSSP Guide. Each year the FDA evaluates states' shellfish programs for compliance with the NSSP MO.

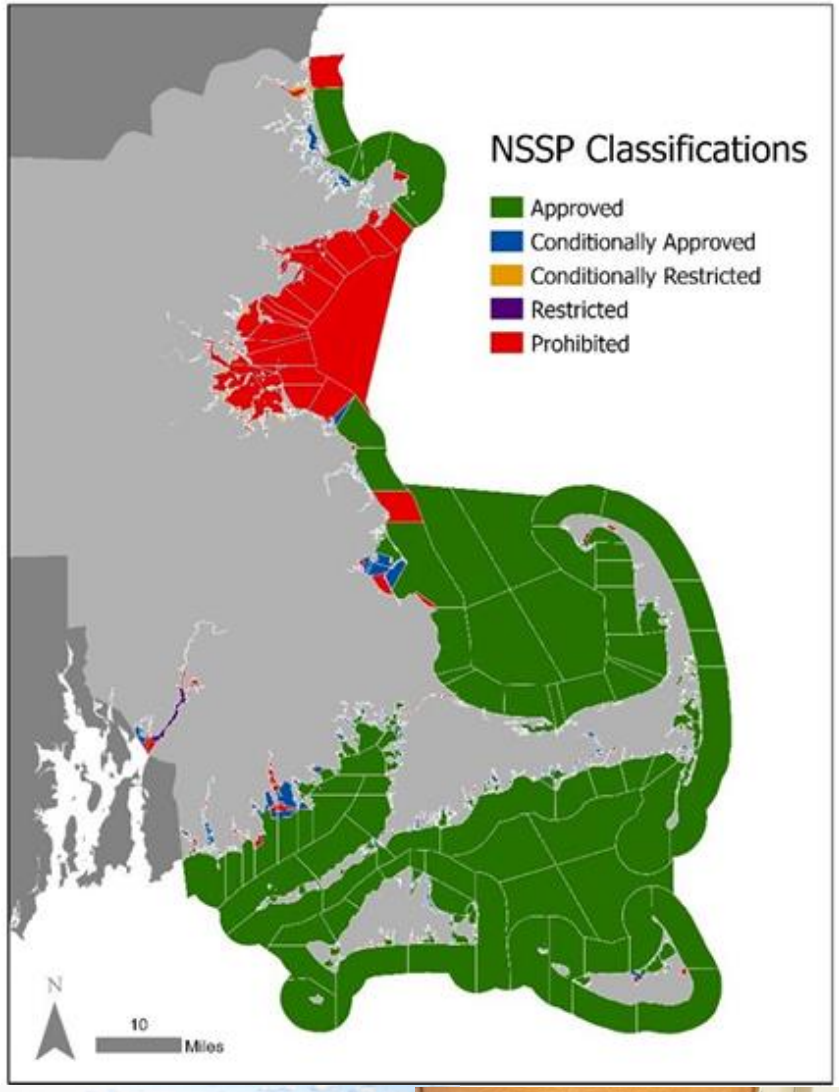
National Shellfish Sanitation Program (NSSP)

Guide for the Control of Molluscan Shellfish 2019 Revision

From the U.S. Food and Drug Administration website
http://www.fda.gov/Food/GuidanceRegulation/FederalStateFoodPrograms/ucm2006754.htm

NSSP Sanitary Classifications

- **Approved** Open to shellfish harvesting for direct human consumption subject to local rules and regulations. Closed only during major coast-wide events (e.g., hurricane, oil spill, red tide event).
- **Conditionally Approved** Closed some of the time due to rainfall or seasonally poor water quality or other predictable events. When open, it is treated as an Approved area.
- **Restricted** Contains a limited degree of contamination at all times. When open, shellfish can be relayed to a less contaminated area or harvested for depuration.
- **Conditionally Restricted** Contains a limited degree of contamination at all times, subject to intermittent pollution events that may close the area some of the time due to rainfall or seasonally poor water quality. When open, shellfish can be relayed to a less contaminated area or harvested for depuration.
- **Prohibited** Closed to the harvest of shellfish under all conditions, except for depletion and the gathering and nursery rearing of seed for aquaculture operations under a DMF permit.



Model Ordinance Mandates

Ch IV @.01 Sanitary Survey

A. General.

(1) The sanitary survey is the written evaluation report of all environmental factors, including actual and potential pollution sources, which have a bearing on water quality in a shellfish growing area. The sanitary survey shall include the data and results of:

(a) A shoreline survey;

(b) A survey of the microbiological quality of the water. In growing areas adjacent to waste water system discharge (WWSD)s the Authority may utilize male specific coliphage (MSC) results from analysis of shellfish meat samples and the analysis of the data will be included in the sanitary survey report;

C. Sanitary Survey Performance.

(5) On an annual basis, the sanitary survey shall be updated to reflect changes in the conditions in the growing area. The annual reevaluation shall include:

(f) The Authority may use MSC meat sampling data and/or MSC waste water sampling data in the annual reevaluation of (5) (b), (c), and (d) above to evaluate the viral contributions of the performance standards of WWSD impacts on shellfish growing areas. If MSC meat and/or water data are being used, the Authority shall conduct annual collection and analysis in determining performance standards.

Ch IV @.03 Growing Area Classification

E. Prohibited Classification.

(5) Wastewater Discharges.

(a) An area classified as prohibited shall be established adjacent to each sewage treatment plant outfall or any other point source outfall of public health significance.

(b) The determination of the size of the area to be classified as prohibited adjacent to each outfall shall include the following minimum criteria:

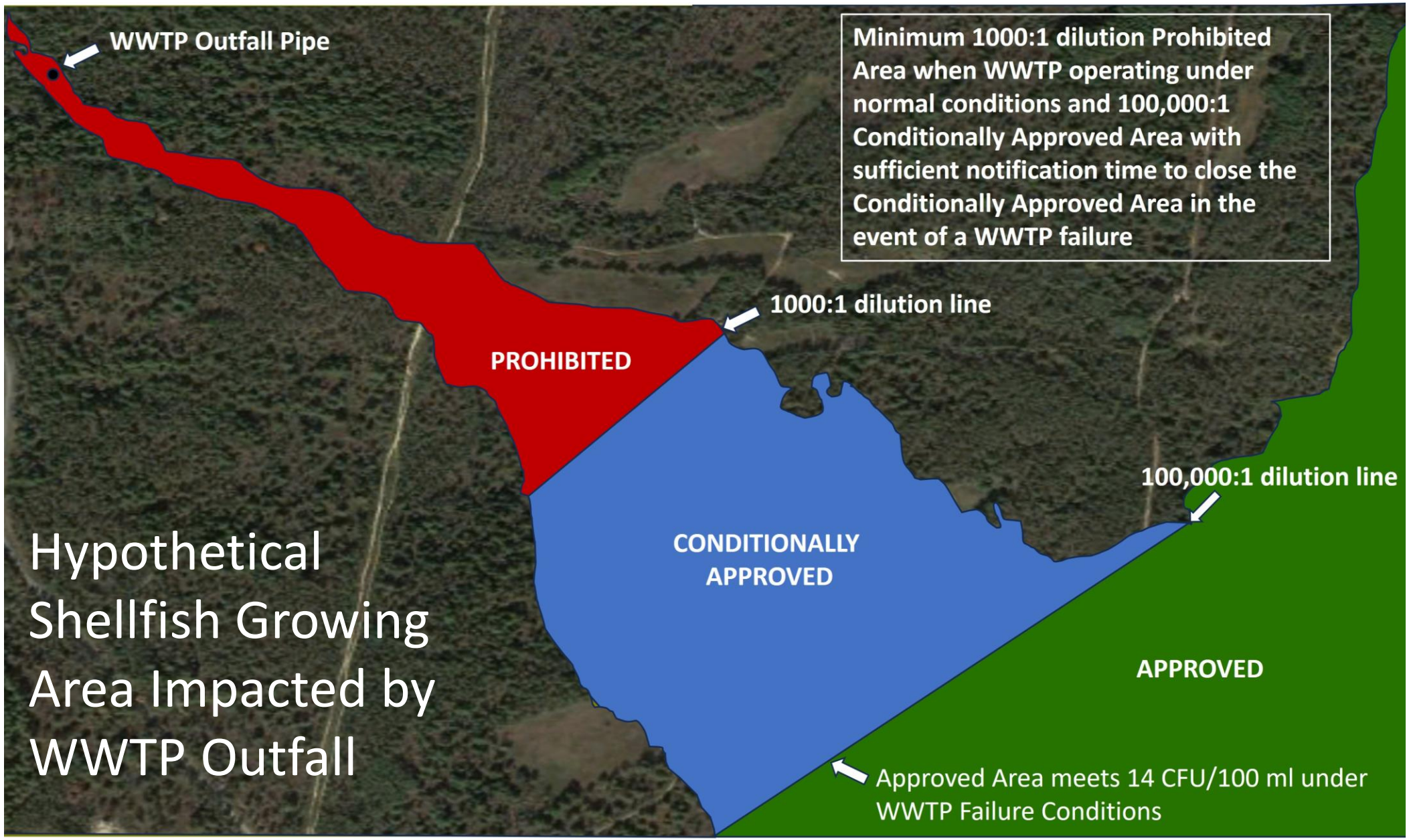
(i) The volume flow rate, location of discharge, performance of the wastewater treatment plant and the microbiological quality of the effluent. The Authority may utilize MSC waste water sample data in the determination of the performance of the sewage treatment plant;

(ii) The decay rate of the contaminants of public health significance in the wastewater discharged;

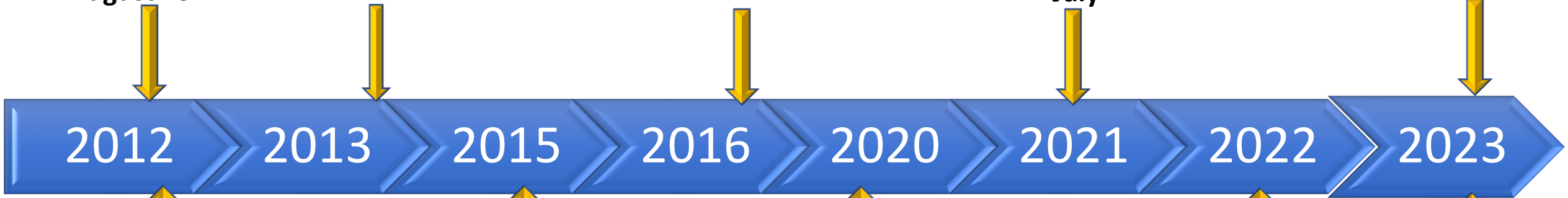
(iii) The wastewater's dispersion and dilution, and the time of waste transport to the area where shellstock may be harvested; and

(iv) The location of the shellfish resources, classification of adjacent waters and identifiable landmarks or boundaries

NSSP Guidance on Classification adjacent to WWTP



PAST TIMELINE



August 13th

ISSC Director issued letter to FDA requesting that FDA shellfish specialists evaluating state conformance with NSSP be instructed that the 1000:1 dilution policy is not mandatory in NSSP

October 15th

FDA issued letter to ISSC stating that best available science supports 1000:1 dilution as the minimum dilution necessary to sufficiently protect shellfish consumers from risks due to enteric viruses

Dec/January

FDA submits proposal (13-118) at 2013 ISSC meeting to formally adopt 1000:1 dilution policy in NSSP Guidance

October

ISSC voted at 2015 biennial meeting to adopt 1000:1 dilution guidance of FDA Proposal 13-118 in the Guidance section of the NSSP Guide.

December

2016 Program Element Evaluation Report (PEER): FDA cites DMF deficiency in dilution analyses around WWTP discharges and inadequate sizing of Prohibited safety zones in accordance with NSSP guidance

April

DMF Rec'd 2018 - 2019 Annual Program Evaluation Report (APER) from FDA citing deficiencies in WWTP discharge dilution analyses for Marshfield and Scituate outfalls

July

DMF secured funding via MFI legislative earmark for hydrodynamic modeling to be conducted by SMAST scientist Dr. Chen in FY22 state budget

July

DMF Rec'd model results for Scituate WWTP discharge in North/South Rivers

October 17th

DMF reclassified BB13 and BB15 to Prohibited after New Bedford, Fairhaven and Dartmouth shellfish constables notified (areas were in closed status for years)

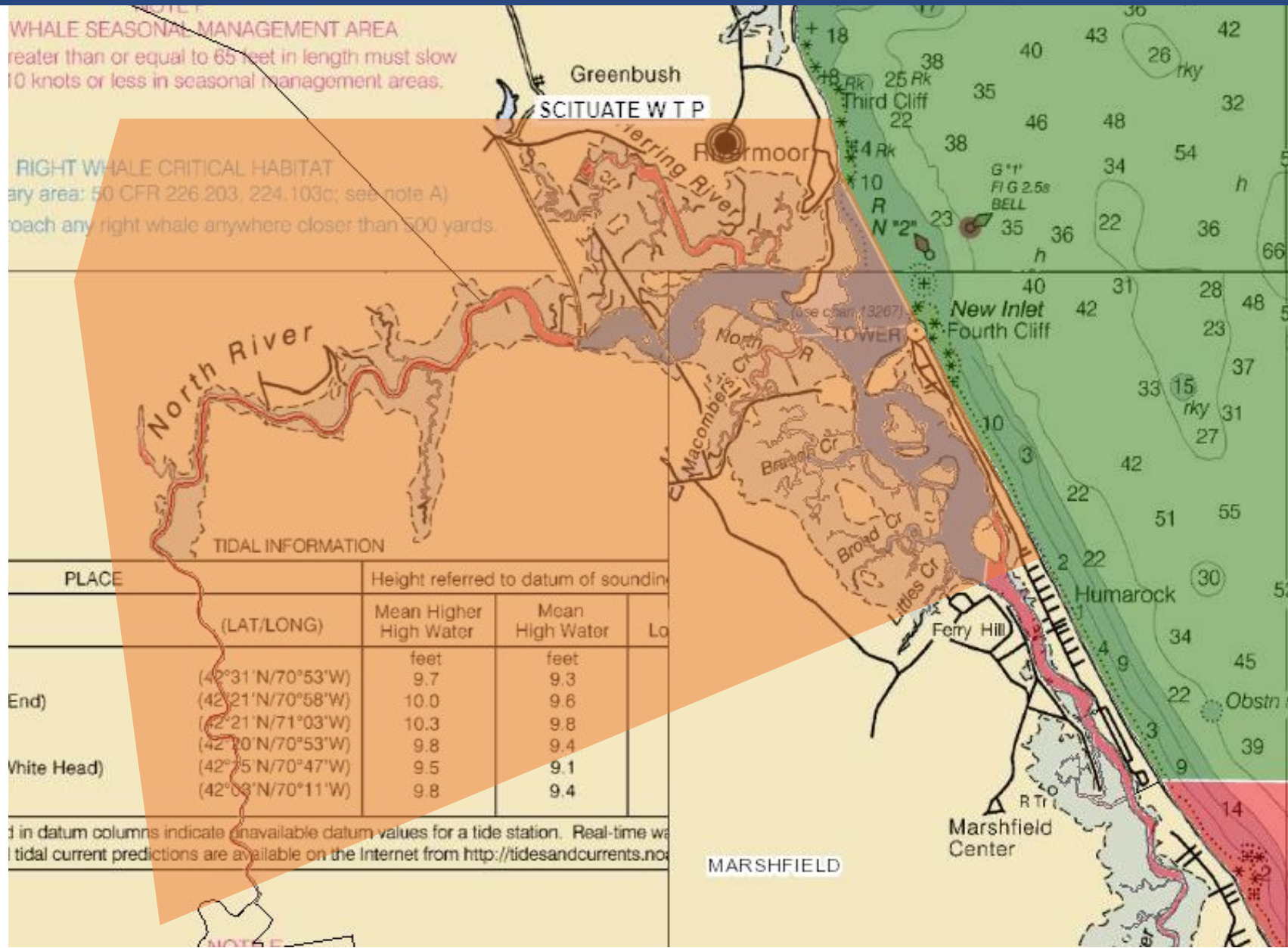
October 11th

DMF presented with preliminary model results for New Bedford and Fairhaven WWTP discharges

Prior Modeling of WWTP Outfall Discharge

FDA Recommended Closed Safety Zone

North and South Rivers in Scituate and Marshfield

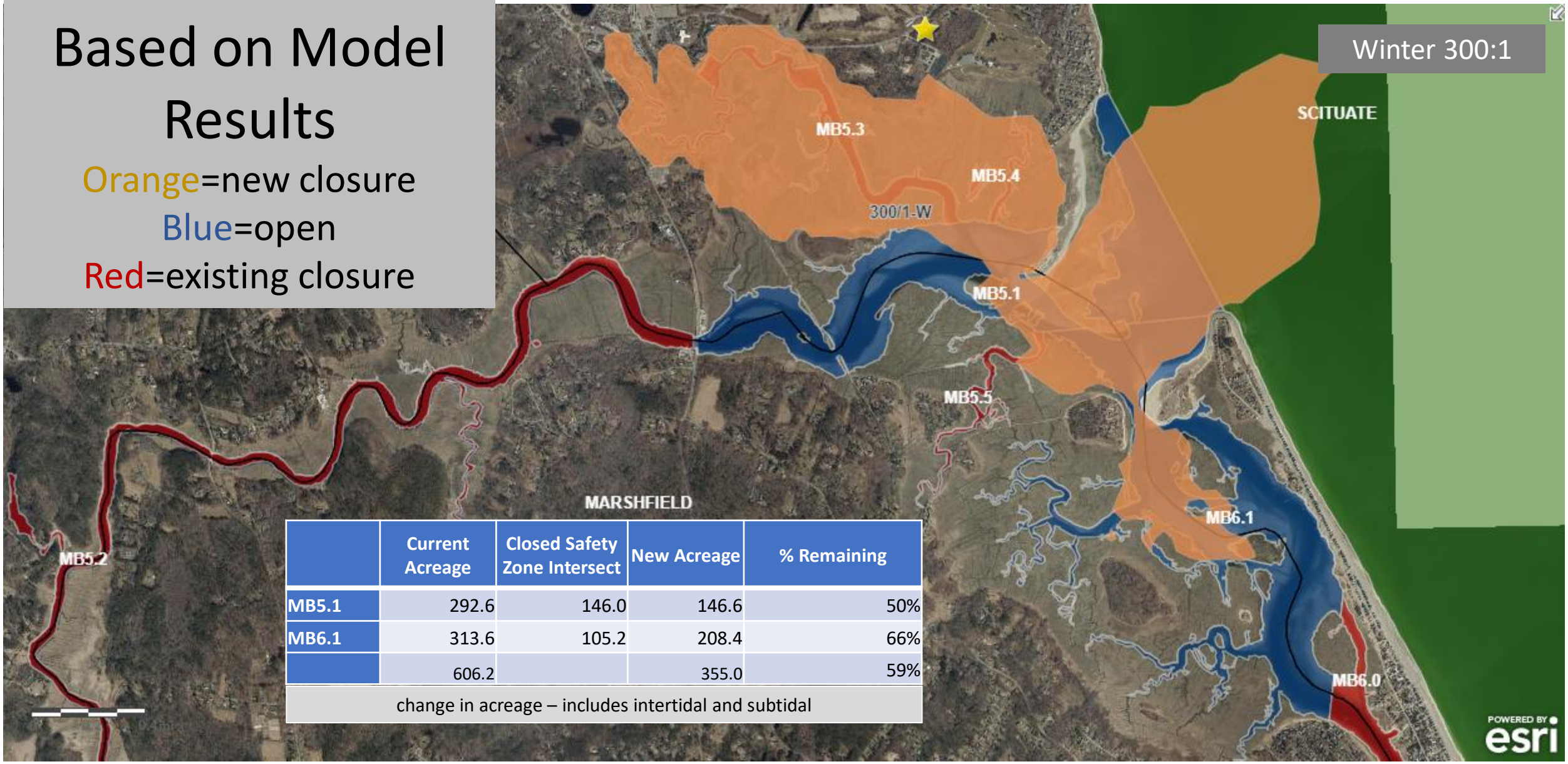


Classification Based on Model Results

Orange=new closure

Blue=open

Red=existing closure



	Current Acreage	Closed Safety Zone Intersect	New Acreage	% Remaining
MB5.1	292.6	146.0	146.6	50%
MB6.1	313.6	105.2	208.4	66%
	606.2		355.0	59%

change in acreage – includes intertidal and subtidal

Dr. Chen

An Offshore Discharge Module

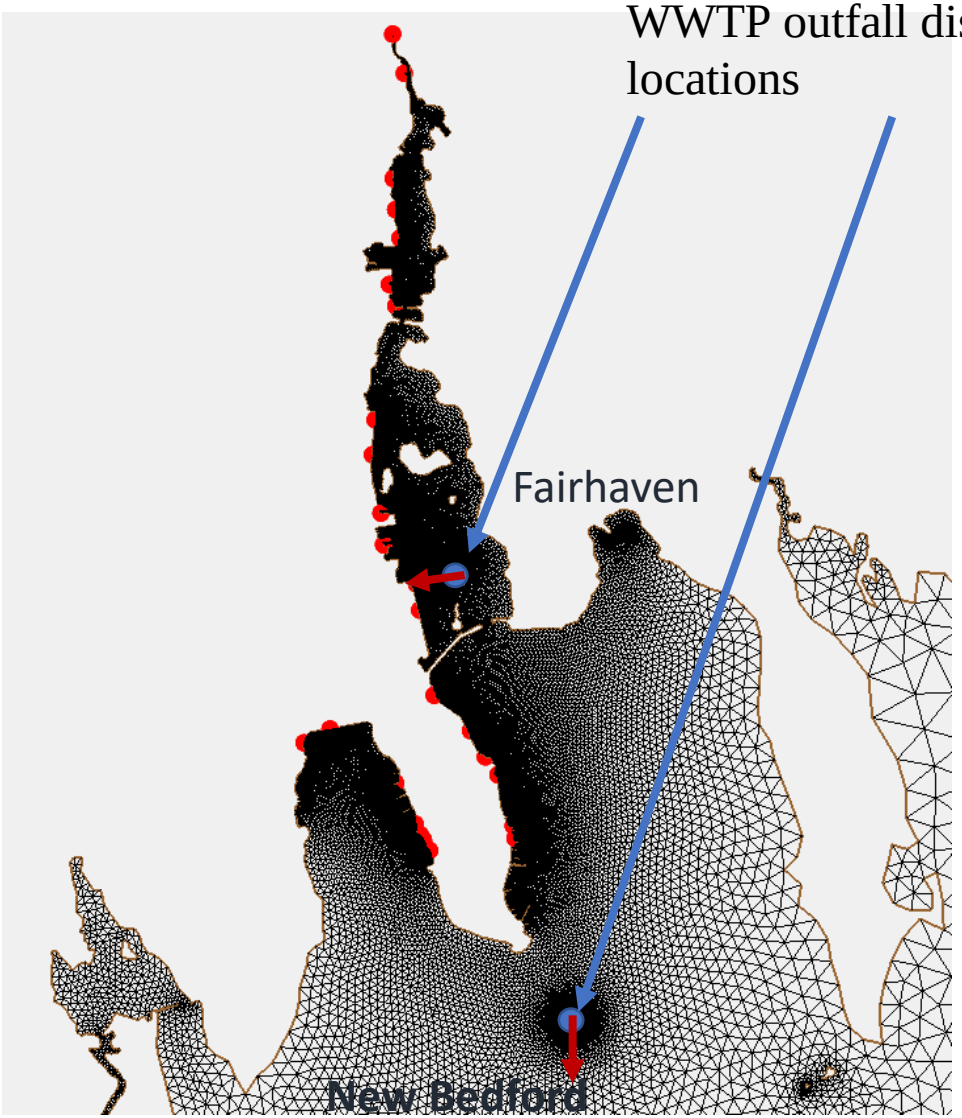
- There are 27 combined sewer overflows (CSOs) along the New Bedford and Fairhaven coasts. The WWTP outfall locations in New Bedford and Fairhaven are off the coast.

- The WWTP discharge module used for the North River is not applicable to the WWTP outfall in New Bedford and Fairhaven.

FVCOM code modification:

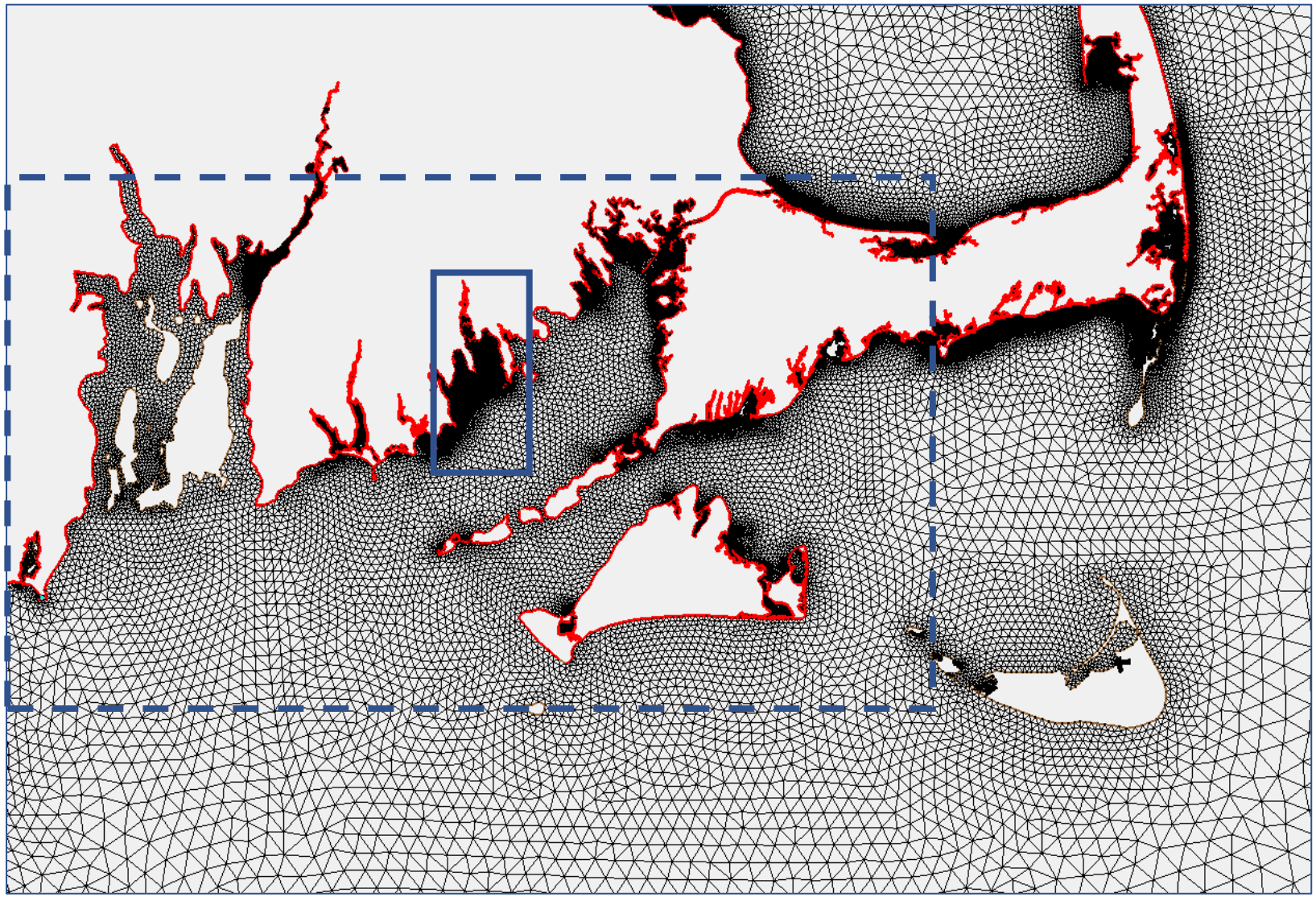
Developed a module capable of injecting WWTP's water flux in the offshore area. This module can control the discharge direction, depth, and locations.

WWTP Discharge (MGD)	Spring	Summer	Fall	Winter
New Bedford	18.93	17.49	23.55	18.16
Fairhaven	3.25	2.22	3.24	2.77



Dr. Chen Slide

Showing region of the dilution maps

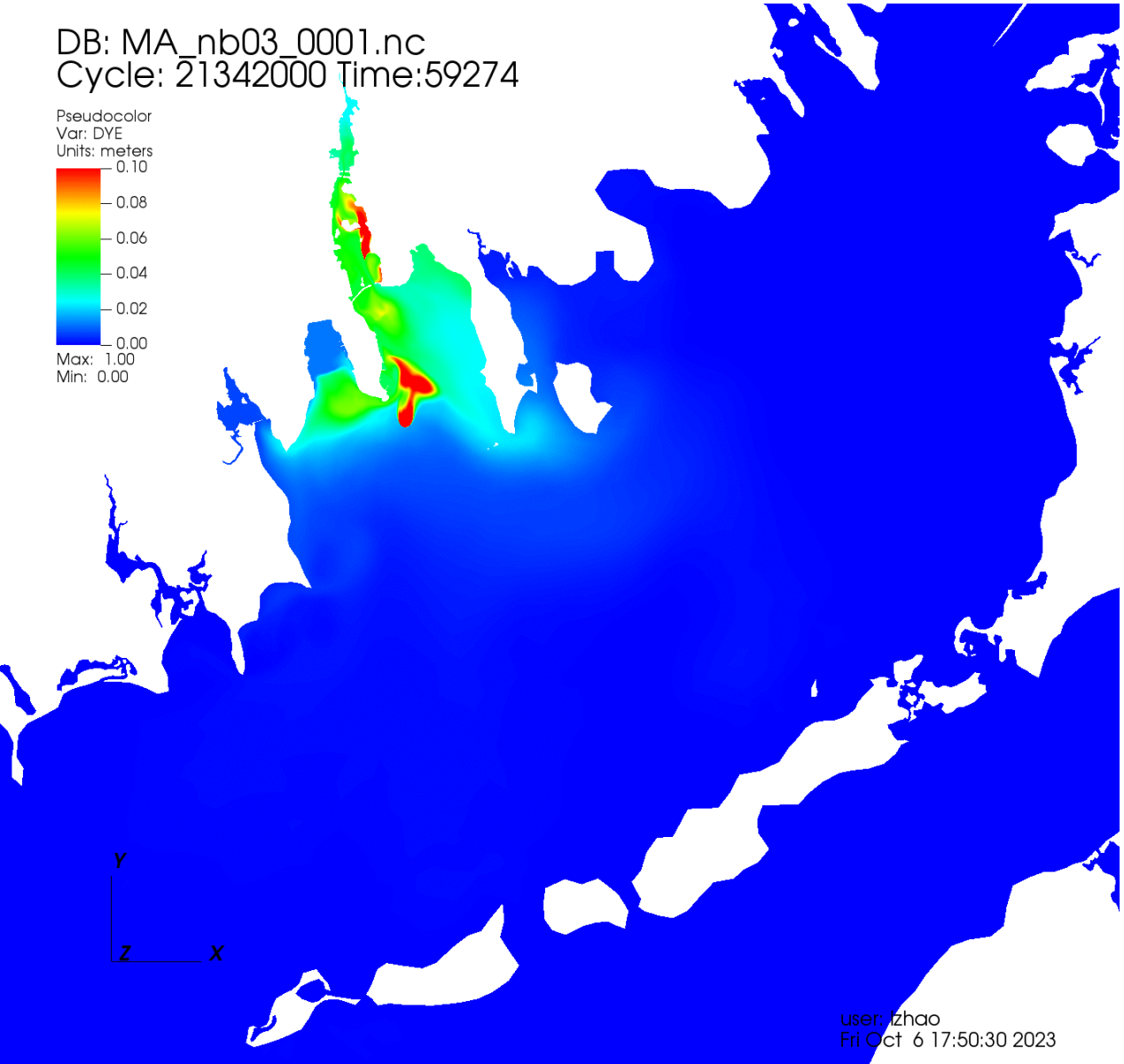


- We have created two sizes of the dilution map.
- The large domain map covers the entire Buzzard Bay, including Narragansett Bay and a portion of Nantucket Sound.
- The small domain map covers the New Bedford and Fairhaven areas.
- Dilution maps were created for seasonal and monthly averages.

Dr. Chen Slide

The maximum surface coverage: March

Surface



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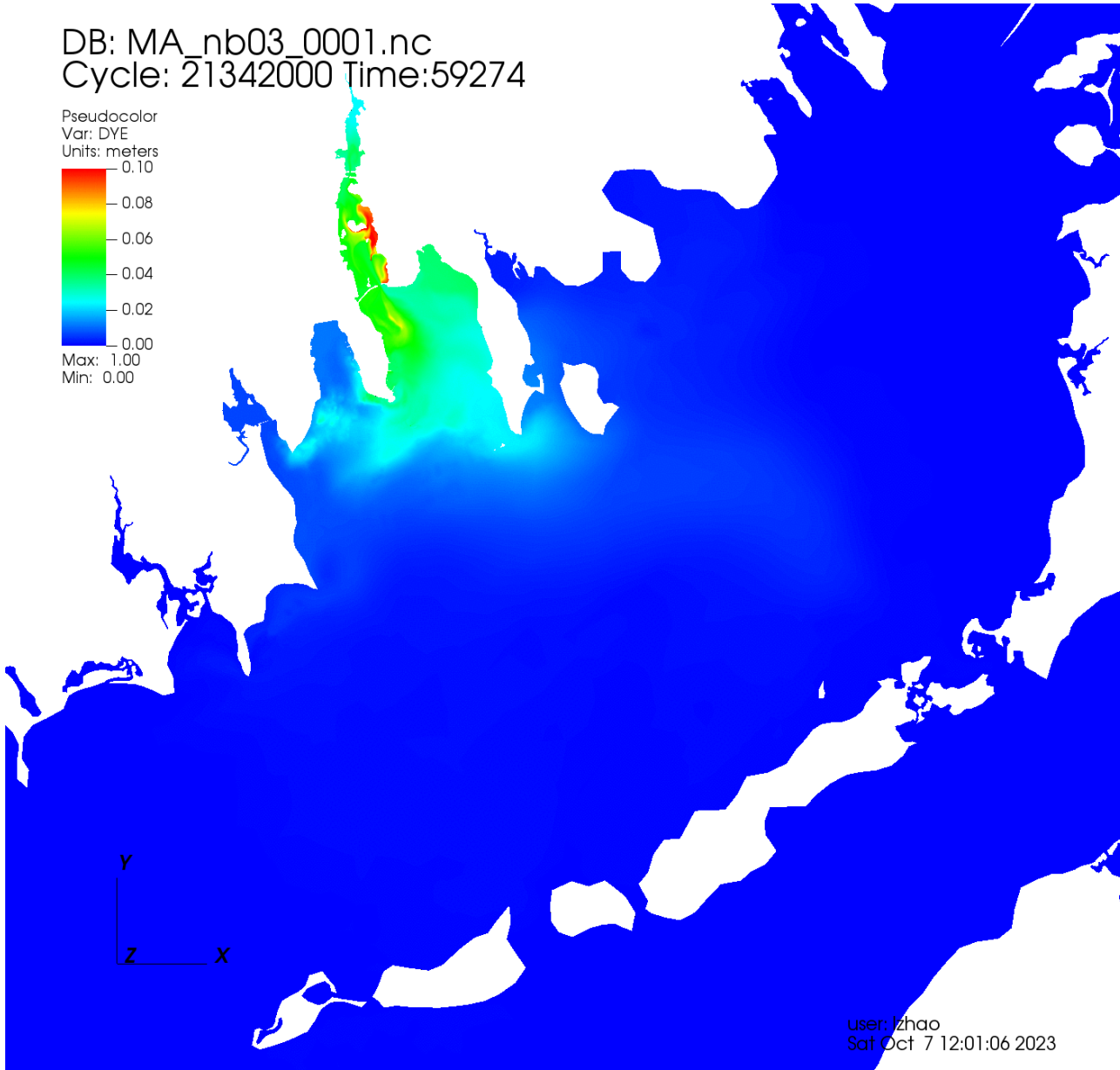
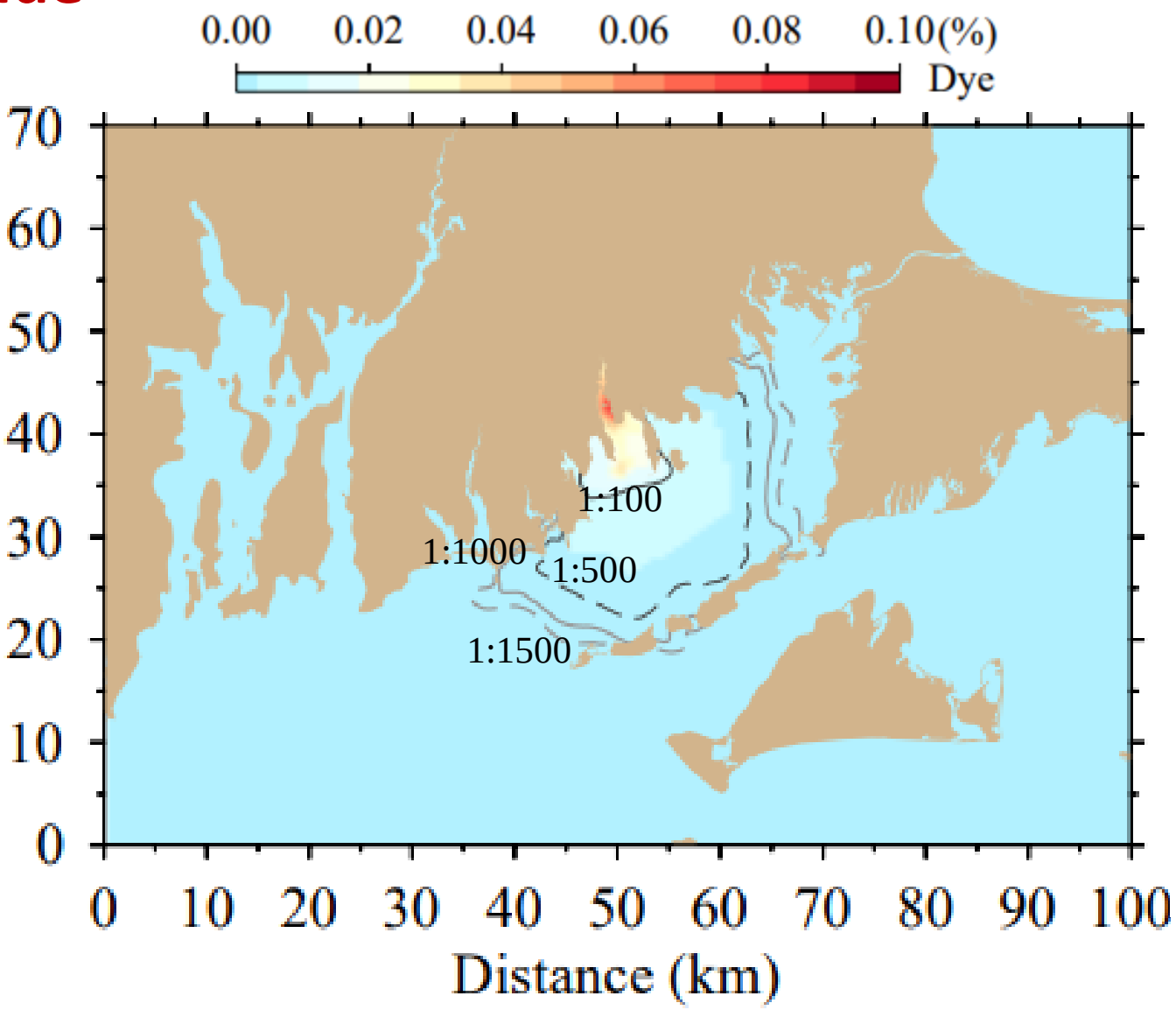
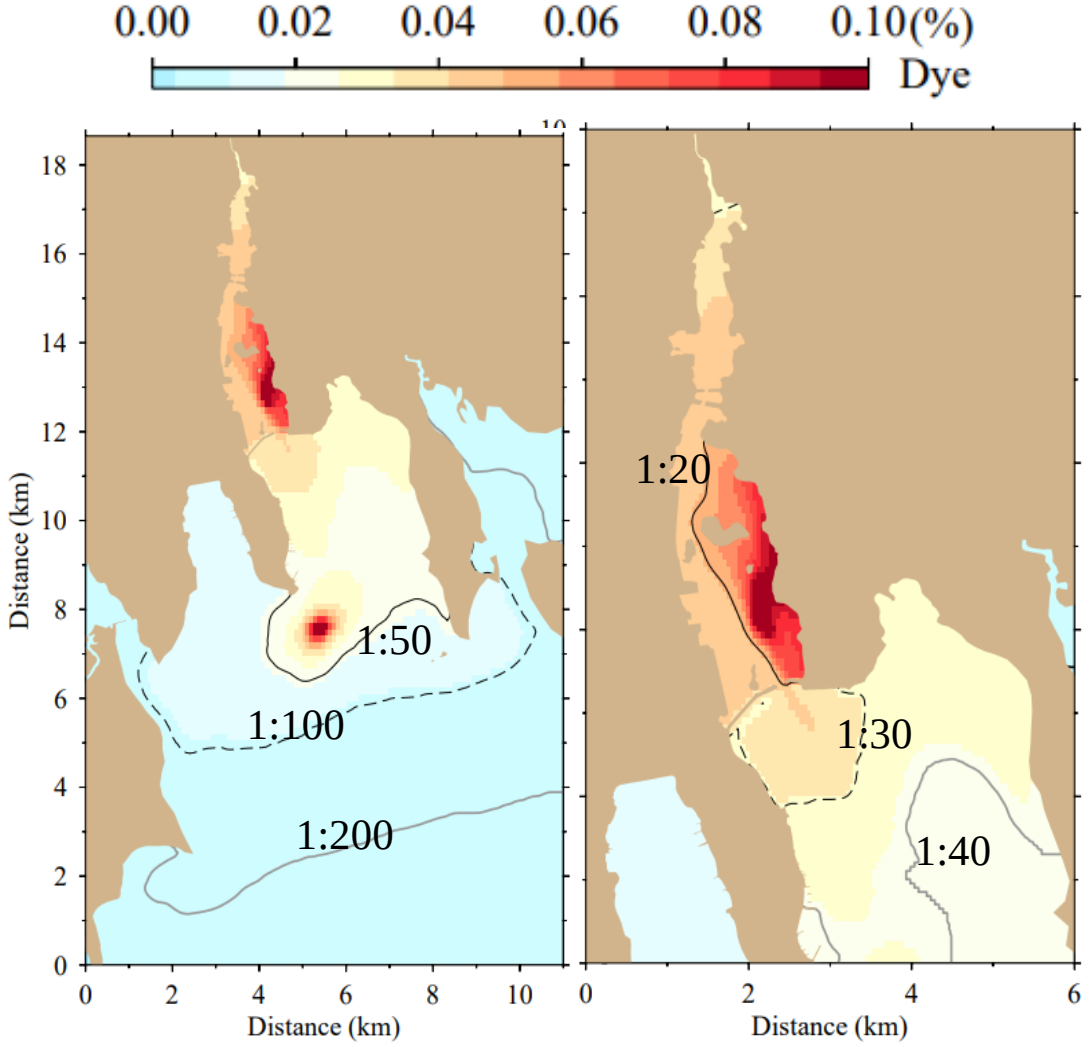


Dr. Chen Slide

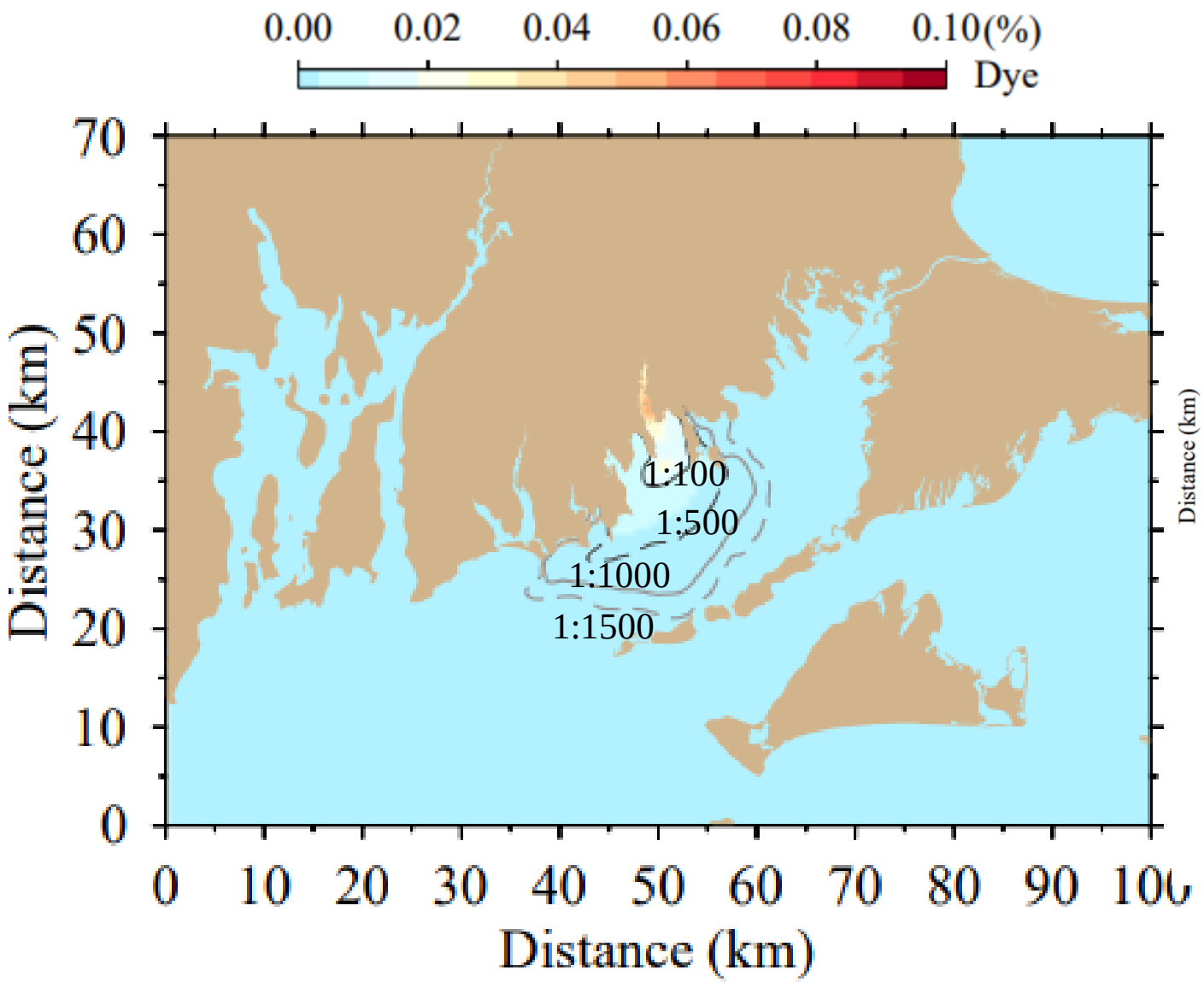
The maximum surface coverage: March

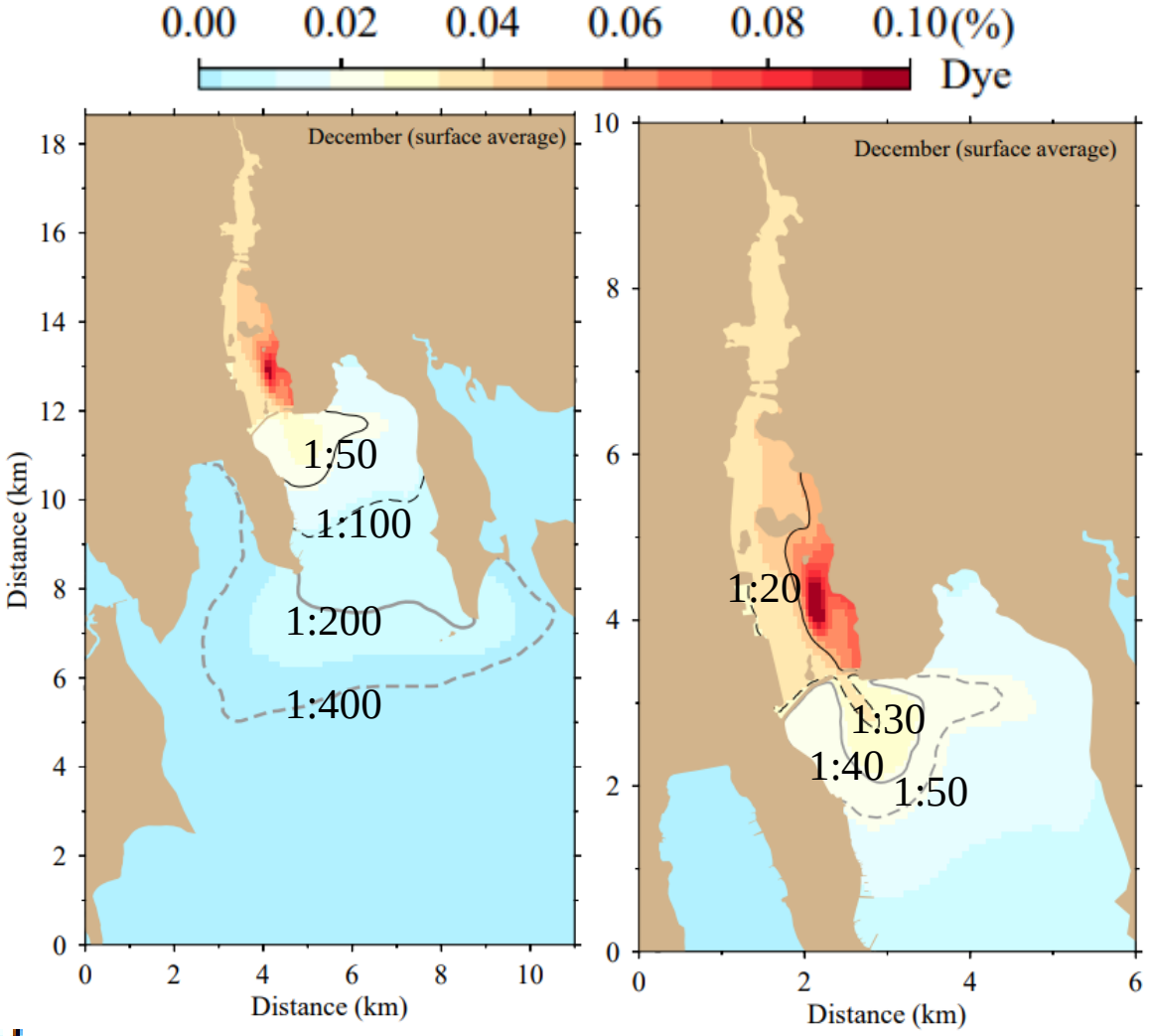




New Bedford and Fairhaven area

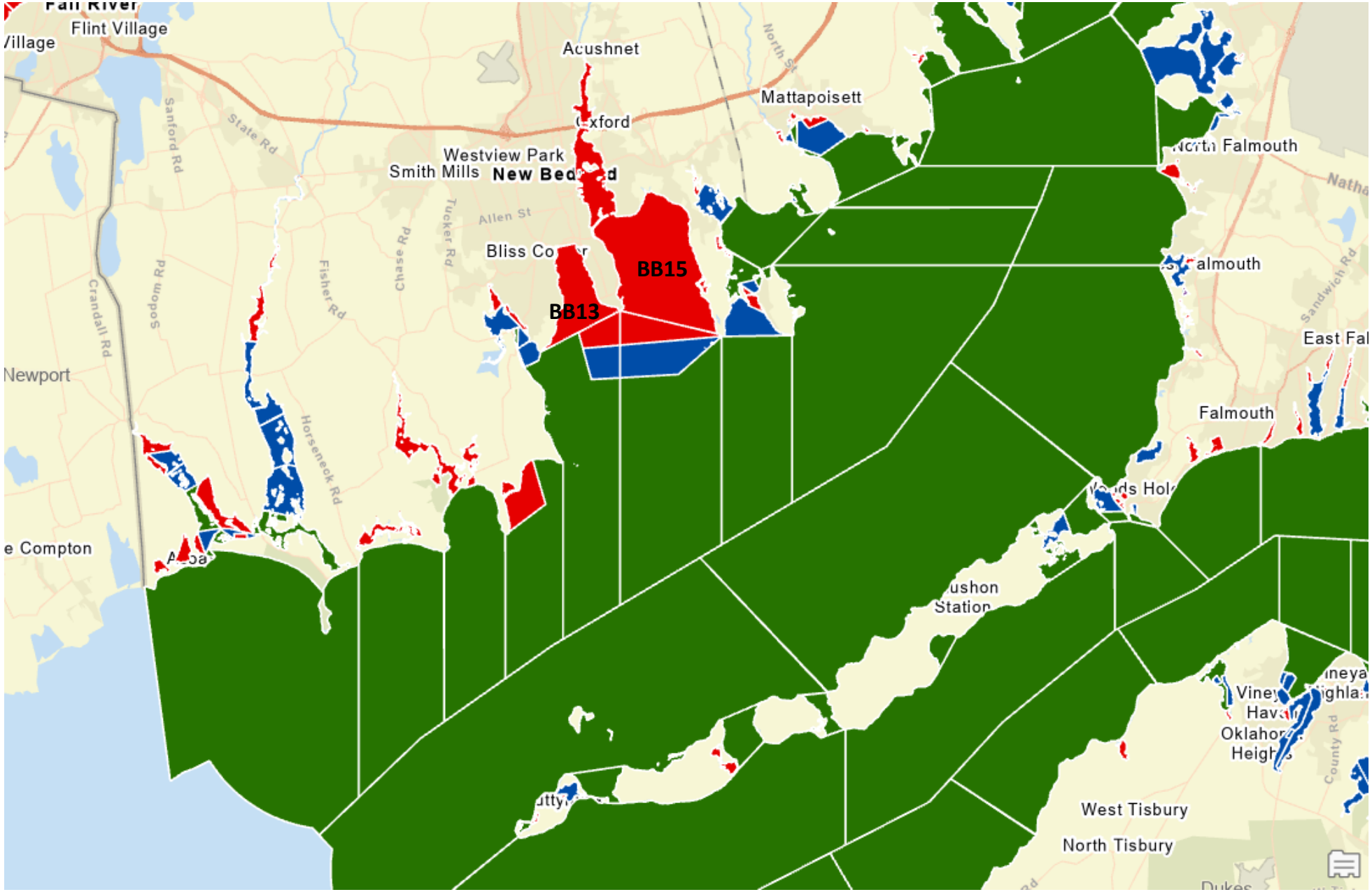
The surface dilution map in December (outfalls from Fairhaven only)





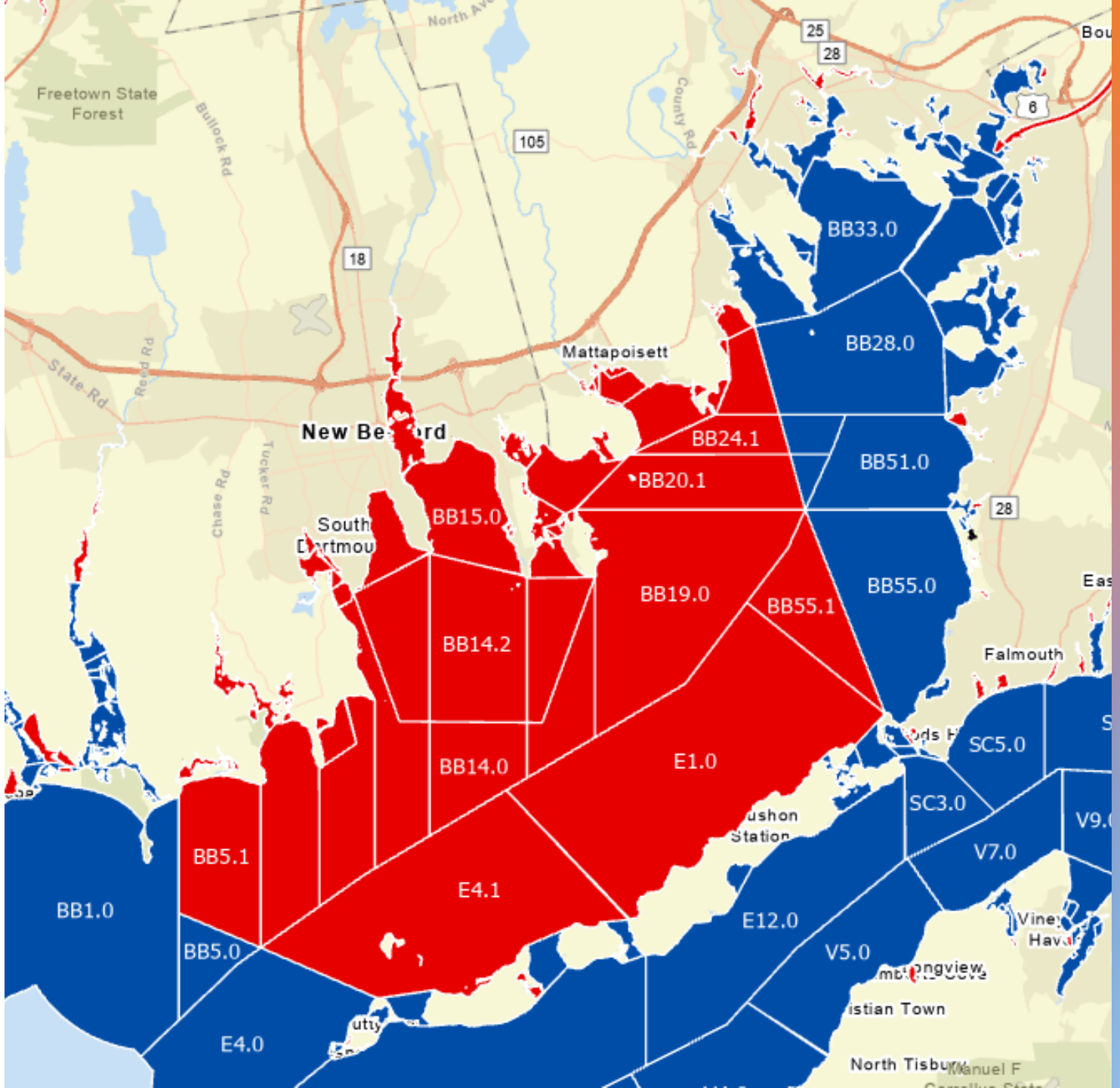
New Bedford and Fairhaven area

Existing Classification Map as of 11/7/2023: 6,901 acres classified as Prohibited due to WWTPs

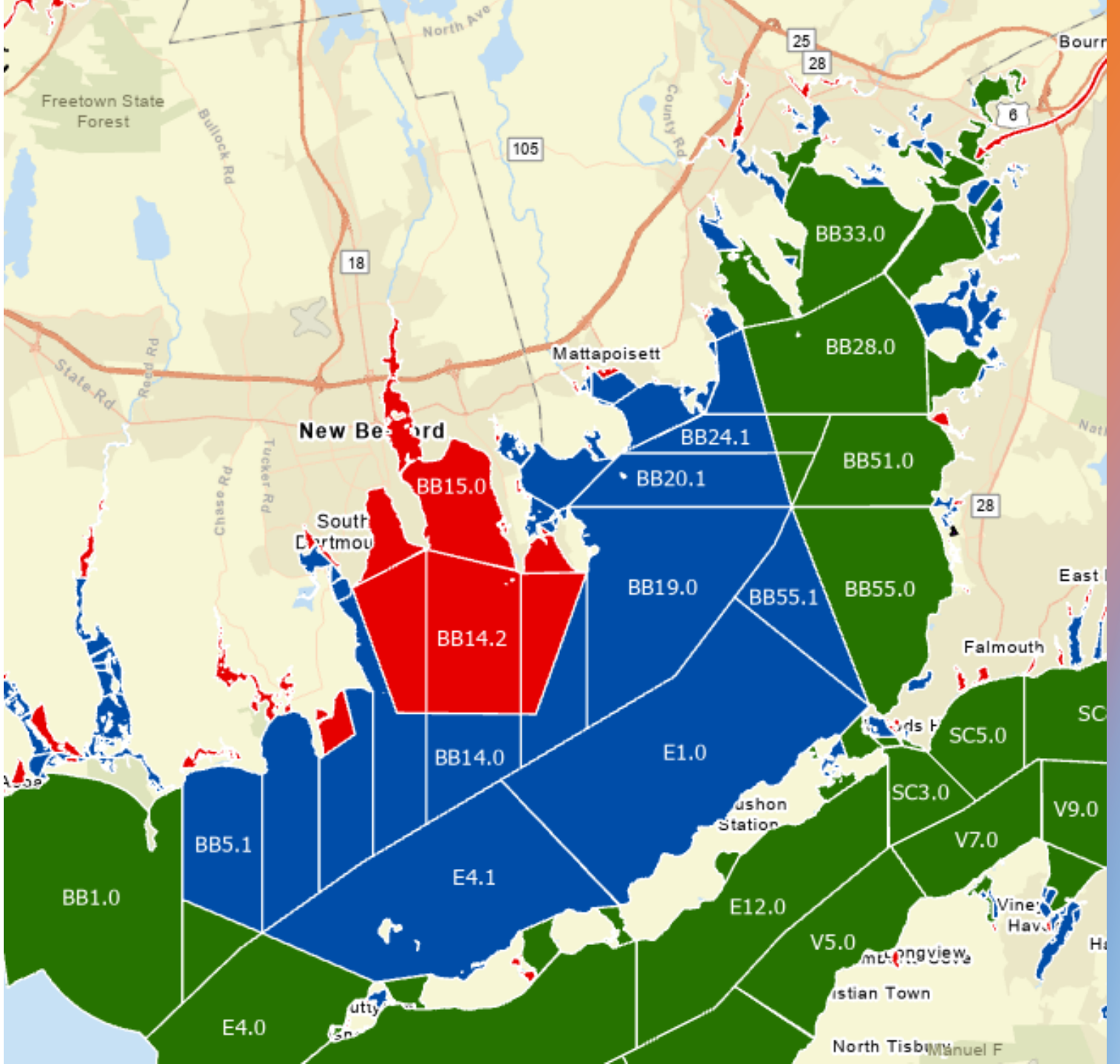


Worst-case Scenario with 1000:1 closed safety zone : >103K acres classified as Prohibited

This would shut down areas currently open to harvest for wild commercial and recreational shellfisheries as well as established aquaculture operations in 8 municipalities: New Bedford, Fairhaven, Dartmouth, Westport, Mattapoisett, Marion, Falmouth and Gosnold. Shellfish harvested from all areas reclassified as Conditionally Approved (blue) would be excluded from the EU market.



Map of DMF's immediate reclassification actions while we implement a testing plan to evaluate WWTP function, bacterial and viral loads in shellfish within and outside the 1000:1 dilution contour: 18,181 acres classified as Prohibited and no existing aquaculture shut down



Other Proposed and Potential Approaches:

- *Test Oysters from the closest aquaculture grants for MSC and fecal coliform levels to facilitate evaluation of public health risk when WWTPs are operating normally, and discharges are compliant with NPDES permit conditions*

- *Need to work with WWTP operators to ensure SCADA system/alarm systems allows for immediate notification of perturbations in treatment to plant operators and immediate notification of treatment disruption is provided to DMF*

- *Investigate possibility of increasing plant holding capacity when treatment disruptions occur to minimize risk of untreated or partially treated effluent discharge*

- *Institute required minimum holding time by Primary Buyer for product harvested from adjacent areas kept in open status*

Anticipated Impacts

- Will have limited closure impacts of on dredge fishery for quahogs
  - 2022
    - 2 harvesters
    - 40,000 pieces
    - <$20,000 ex-vessel value
- Shellfish Harvested from Conditionally Approved areas cannot be sold to the European Union
- Potential impacts on limited recreational fishery for Town of Fairhaven
- New Bedford highly limited in development of aquaculture
- Dramatic increase in DMF workload to maintain the large Conditionally Approved area
  - 140% increase in water sampling for region
  - MSC testing of shellfish meats for viral load and fecal bacteria testing will dramatically increase workload and requisite supplies for DMF Laboratory

Summary

- The existing Prohibited Closed Safety Zones around the New Bedford/ Fairhaven WWTP outfalls are inadequate

- Closed Safety Zone expectations in NSSP guidance calls for a 1000:1 Prohibited Area
    - This would require wide-ranging closures of shellfish growing areas, including aquaculture businesses that have been in operation for generations, from Westport to Marion as well as Falmouth and Gosnold.

- Model results showed the largest area of impact occurred during winter through spring. The spreading was smaller during summer through fall, despite the WWTP discharges being largest in the fall.

- NSSP Guidance also calls for a Conditionally Approved (CA) classification between the 1000:1 contour line and 100,000:1. This has implications for the amount of effort required to keep the CA areas in the open status (>140% increase in sampling/monitoring effort) and shellfish harvested from CA areas cannot be shipped to EU.

- DMF has maintained communications and coordination with MA DPH, MA DEP and US FDA.

- FDA does not object to DMF's approach of increasing the Prohibited safety zone to 18,121 acres and keeping areas with historical aquaculture operations open while we evaluate WWTP function and the actual bacterial and viral loading in shellfish potentially impacted by the discharges. Worst-case scenario may prove to be warranted.

- The comprehensive plan to evaluate a smaller Prohibited area and sampling requirements for maintaining larger CA areas will substantially increase the demand for field and laboratory staff and require a larger lab budget.

The Commonwealth of Massachusetts
Division of Marine Fisheries

(617) 626-1520 | www.mass.gov/marinefisheries

MAURA T. HEALEY, Governor | KIMBERLEY DRISCOLL, Lt. Governor | REBECCA L. TEPPER, Secretary | THOMAS O'SHEA, Commissioner | DANIEL J. MCKIERNAN, Director

MEMORANDUM

TO: Marine Fisheries Advisory Commission (MFAC)

CC: Massachusetts Shellfish Advisory Panel

FROM: Daniel J. McKiernan, Director

DATE: March 13, 2024

SUBJECT: **Recommendations on Changes to Shellfish Regulations**

Recommendations
I recommend the MFAC approve the following amendments to the state's shellfish regulations:

1. Revise icing requirements for oysters during the Control Season for *Vibrio parahaemolyticus*, so that ice is to be applied in a manner that continuously and completely covers loose oysters or bags of oysters and exempts commercial fishers from icing requirements if primary buyers take on the burden of icing at landing and within the time-to-icing window.
2. Clarify that only ice made from potable water may be applied to shellfish, including during land-based overwintering.
3. Specify that the most specific alpha-numeric sequence for a shellfish growing area shall be recorded on the shellfish harvester tag.
4. Adopt a uniform state-wide night closure for the commercial harvest of shellfish. The closure would apply from one-half hour after sunset to one-half hour before sunrise, except that shellfish harvested in state regulated mobile gear fisheries could continue to occur between 6AM and 6PM during the period of November 1 through the last day of February.
5. Allow the primary sale of shellfish to occur at a municipally managed site as an alternative to the landing site as approved by DMF.

***Vibrio* Management Plan for the Harvest and Handling of Oysters**
State regulations at 322 CMR 16.07 establish the protocols and performance standards consistent with the state's *Vibrio parahaemolyticus* (*Vp*) Control Plan, required by the National Shellfish Sanitation Program and approved annually by the Massachusetts *Vibrio* Working Group (DMF, DPH and MEP) to minimize the public health risk associated with *Vp* and the consumption of raw oysters. This includes a variety of risk controls during harvest and handling designed to minimize temperature abuse to prevent elevating risk and record keeping requirements to verify compliance with risk controls and aid in illness traceback.

The existing regulations generally require oysters to be adequately iced prior to leaving the point of landing and within two hours from time of harvest or first exposure in an intertidal area. This requirement is more stringent—requiring adequate icing within one hour from time of harvest or first exposure in an intertidal area—for certain growing areas during the peak summertime period (July 1 – September 15).

This is done to prevent temperature abuse and inhibit the growth and proliferation of the *Vp* bacterium in oysters. Further, the current regulation prescribes several methods to comply with this adequate icing requirement. This includes: (1) surrounding mesh bags of oysters with at least two inches of ice between each bag and between the bags and the sides and bottom of an icing container and applying three inches of ice on top of the mesh bags; (2) placing loose oysters into an icing container with at least two inches of ice between the loose oysters and the sides and bottom of the icing container and applying three inches of ice on top of the loose oysters; or (3) fully submerging oysters into an icing container holding an ice slurry or cold water dip that is at or below 45°F.

In 2023, the *Vp* Working Group agreed to adopt the less prescriptive icing standards preferred by industry within the *Vp* Control Plan. This included: (1) mesh bags containing oysters be completely surrounded by ice, including at the bottom of the container and each level of bags, so that each bag is continuously and completely covered with ice; (2) loose oysters in a container of ice be completely surrounded by ice, including at the bottom of the container and each level of bags, so that each bag is continuously and completely covered with ice; and (3) exempting harvesters from icing requirements if the primary buyer takes on the burden of icing at the landing site and within the time-to-icing window. Unfortunately, given the 2023 *Vp* Control Plan was not approved and implemented until May 18, 2023, DMF was unable to amend its regulations for the 2023 *Vp* Control Season. Rather, MEP exercised their discretion in the field to enforce icing rules at the less prescriptive *Vp* Control Plan standard and DMF committed to industry that regulations would be updated for the 2024 season.

The public hearing proposal therefore sought to make the modifications to the icing regulations consistent with this commitment. However, for 2024, DMF anticipates the *Vp* Working Group will again amend the *Vp* Control Plan to address industry-driven concerns regarding the specificity of the icing rules. Specifically, commercial fishers have noted that they are challenged by the "completely surrounded" requirement as it does not allow bags of oysters to be placed next to each other unless there is ice between the bags and it does not account for the fact that ice will melt and move. Rather, industry's preference is for this language to be further refined so that oysters, or bags thereof, need to be "completely and continuously covered" with ice. This preference is evidenced in the written public comment and public hearing testimony.

While the change from "completely surrounded" to "continuously and completely covered" has not yet been approved or implemented into the *Vp* Control Plan, I anticipate this will occur later this spring. To avoid potential administrative delays resulting in the *Vp* Control Plan again being out of phase with the *Vp* regulations, I am recommending the MFAC approval DMF to file regulations consistent with the expected language (i.e., "continuously and completely covered"). This is consistent with the intent of the proposed regulations and responsive to the public comment received on the proposal.

My final recommendation on the remainder of the issue (i.e., icing by primary buyers) remains unchanged from the proposal brought to public hearing which was supported in public comment.

In discussing the *Vp* Control Plan, DMF received a comment from a prominent grower-dealer regarding offsite culling. Under existing regulations, aquaculturists may offsite cull oysters during the *Vp* Control Season provided the oysters are returned to the grant site, segregated as such, and resubmerged for a period of 10-days. After this 10-day re-submergence period, the oysters may be harvested, tagged, and brought to market. The grower-dealer sought an exemption to allow for market-grade oysters offsite culled at his dealer facility (both his oysters and oysters belonging to other growers who are authorized to cull at his facility) to be immediately brought to market rather than re-submerged. This individual's facility has a sophisticated culling machine and he opined that the activity could be managed through an Intermediate Processing Plan approved by DPH. In my view, this is a reasonable request. However, it complicates shellfish tagging rules and shellfish minimum size rules, as not all product that is brought to

market may be sold and some may be returned to the license site after culling. Accordingly, I intend to assemble a Focus Group of the Shellfish Advisory Panel—including industry members, DPH, and the local constable—and the Massachusetts Environmental Police to develop a potential pilot program for this upcoming *Vp* Control Season.

Sanitary Icing of Shellfish

Some aquaculturists have argued that DMF regulations at 322 CMR 16.04 do not restrict the application of non-potable ice beyond market bound product. This issue came to a head in early 2023 when DMF learned of some aquaculturists applying resurfaced rink ice to their oysters destined for overwintering. DMF responded to this by providing industry with a written interpretation of its regulations which concluded state regulations prohibit the icing of shellstock with ice obtained from any source other than an approved source that uses potable water and properly maintained ice machines. This interpretation is consistent with the National Shellfish Sanitation Program's Model Ordinance [§II, c. VIII.02.H.(1)], which specifies "any ice used in storage or cooling of shellfish during harvest shall be made from a potable water source…" with the term 'harvest' being defined as "the act of removing shellstock from growing areas and its placement on or in a manmade conveyance or other means of transport."

DMF's public hearing proposal aimed at improving the regulatory language to remove any remaining confusion regarding the state's prohibition on the application of non-potable ice to shellfish. While generally supported in public comment and public hearing testimony, some aquaculturists continue to argue that we should accommodate the use of rink ice for overwintering. Proponents site it is a historic practice and a cheap source of ice and question the public health risk.

DMF does not support this position. The application of any non-potable ice, but particularly rink ice, to shellfish is unacceptable. This ice does not meet the potable water standard required by the model ordinance. Further, it has likely been exposed to biological and industrial contaminants and other potential adulterants; the application of this ice to shellstock runs counter to safe food handling practices and could erode public confidence; the existing 14-day re-submergence requirements were not intended to address the purification of shellstock adulterated in this manner; and there are no studies into the purification process that would safely justify a re-submergence accommodation in this scenario. DMF will continue to work with the industry and the dealer sector to obtain grants to make free or cheap ice available to the aquaculture industry throughout the state. This is the best way forward to protect public health and maintain consumer confidence in Massachusetts' oysters.

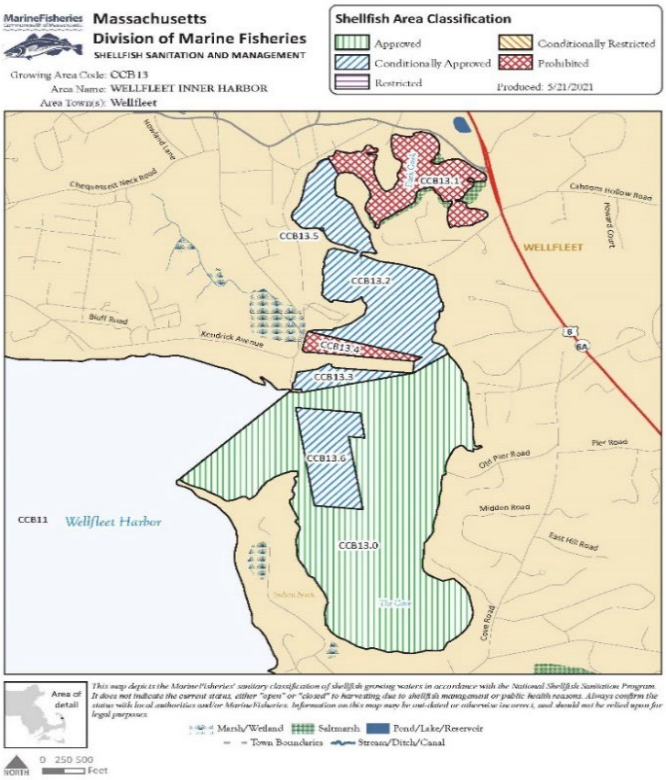
Recording of Shellfish Growing Area on Harvester Tag

In Massachusetts, shellfish growing areas are identifiable by an alpha-numeric sequence. In many instances, a single shellfish growing area may be divided into several sub-areas each having their own discrete quality classification that governs the type of harvest activities that may occur. These sub-areas are identifiable by the decimal place in the assigned alpha-numeric sequence. For instance, one of the most productive shellfish growing areas in the state—Wellfleet Harbor—is identified as "CCB13" and contains seven sub-areas with classifications that include "Approved", "Conditionally Approved", and "Prohibited" (Figure 1). In other instances, a shellfish growing area may stand alone and not be divided into sub-areas. In such cases, the area's sole alpha-numeric sequence includes a "0" in the decimal position. This recognizes the shellfish growing area may be divided into sub-areas in the future.

The National Shellfish Sanitation Program's Model Ordinance [§IV c. III.04] requires all market-bound shellstock to bear a harvester tag, which includes information regarding the harvester and the harvest activity (e.g., time, date, and area of harvest). These tags are part of a chain of record keeping requirements that provide traceability from the harvester to the end consumer and are used in product recalls. With regards to recording the area of harvest on the harvester tag, the Model Ordinance specifies it be "the most precise identification of the harvest location or aquaculture site as is practicable."

DMF implements this aspect of the Model Ordinance through regulations at 322 CMR 16.05. With regards to area of harvest, the regulations state "the shellfish growing area name and number from where the shellfish was harvested." While the intent of the regulation is generally well understood as apply to the most specific alpha-numeric sequence—and this requirement is clearly stated in DMF's annual Shellfish Harvest, Handling, and Transport Affidavit—the regulatory language could be more. In some instances, harvesters still only record the most general alpha-numeric sequence (e.g., CCB13) and not the sub-area (e.g., CCB13.0). This unnecessarily confounds the efficacy of the shellfish tagging program and may inadvertently enhance the public health risk associated with consuming shellfish.

Figure 1. Shellfish Growing Area Map for Wellfleet Harbor (CCB13)



For these reasons, I recommend amending 322 CMR 16.05 to make clear the regulation refers to the most specific alpha-numeric sequence for the shellfish growing area from which the shellfish were taken. This is consistent with the Model Ordinance and DMF's longstanding interpretation of its regulations. Not surprisingly, public comment on this clarification was nominal and supportive.

State-Wide Night Closures

Historically, night fishing for shellfish has been prohibited through a myriad of state laws, state regulations, and local regulations and bylaws. Night fishing is generally understood to be any fishing activity that occurs between one half hour after sunset to one half hour before sunrise. Additionally, state managed mobile gear fisheries for shellfish (sea scallops, surf clams & ocean quahogs) further define night fishing as between 6PM and 6AM during the winter months (November 1 through the end of February). These rules are designed to prevent non-compliance with the state's sanitary harvest and handling requirements to protect public health, as well as state and municipal controls for managing the resource. In recent months, there has been some interest in Massachusetts adopting a state-wide standard to enhance enforcement and compliance by allowing the Massachusetts Environmental Police to issue state citations for night fishing in municipally managed shellfish fisheries. In turn, this would promote public health and safety and potentially bolster justification for smaller safety zones around Wastewater Treatment Plants.

DMF believes this recommendation is broadly supported by industry and enforcement. This is evidenced by the fact we received limited public comment and testimony on the subject and that which we received supported it. While the recommended state-wide closure will apply from one half hour after sunset until one half hour before sunrise, DMF will continue to allow state managed shellfish dredge fisheries to occur from 6PM to 6PM during the winter period, consistent with the public comment received.

Primary Sale of Shellfish at Municipal Site
DMF regulations at 322 CMR 16.04 require the primary sale of shellfish (i.e., that initial transaction between harvester and dealer) occur only at the landing site or at the primary buyer's physical location. The purpose of this is to limit the extent to which harvesters may handle and transport shellfish after landing to safeguard public health (e.g., preventing opportunities for time-to-temperature abuse and cross-contamination and avoiding direct-to-public sales where traceability is undermined).

Last year, the Town of Barnstable raised an issue regarding this regulation. The Blish Point landing site in Barnstable Harbor is extremely congested during the summer months creating public safety concerns and making it very difficult to accommodate primary transactions. Rather, the town requested DMF allow them to use a municipally managed and monitored lot less than one-mile away as a site for primary transactions. DMF reviewed the request and exempted the requirement that dealer trucks conduct primary transactions at the landing site through an authorization. However, a regulatory fix is warranted as we anticipate other municipalities may be interested in such an accommodation. Accordingly, I recommend to clearly codify an allowance for primary purchases to also occur at municipally managed sites approved by the Director. DMF believes this recommendation is broadly supported. This is evidenced by the fact we received limited public comment and testimony on the subject and that which we received supported it.

Enclosed
Written public comment.

Shellfish Statistics Update

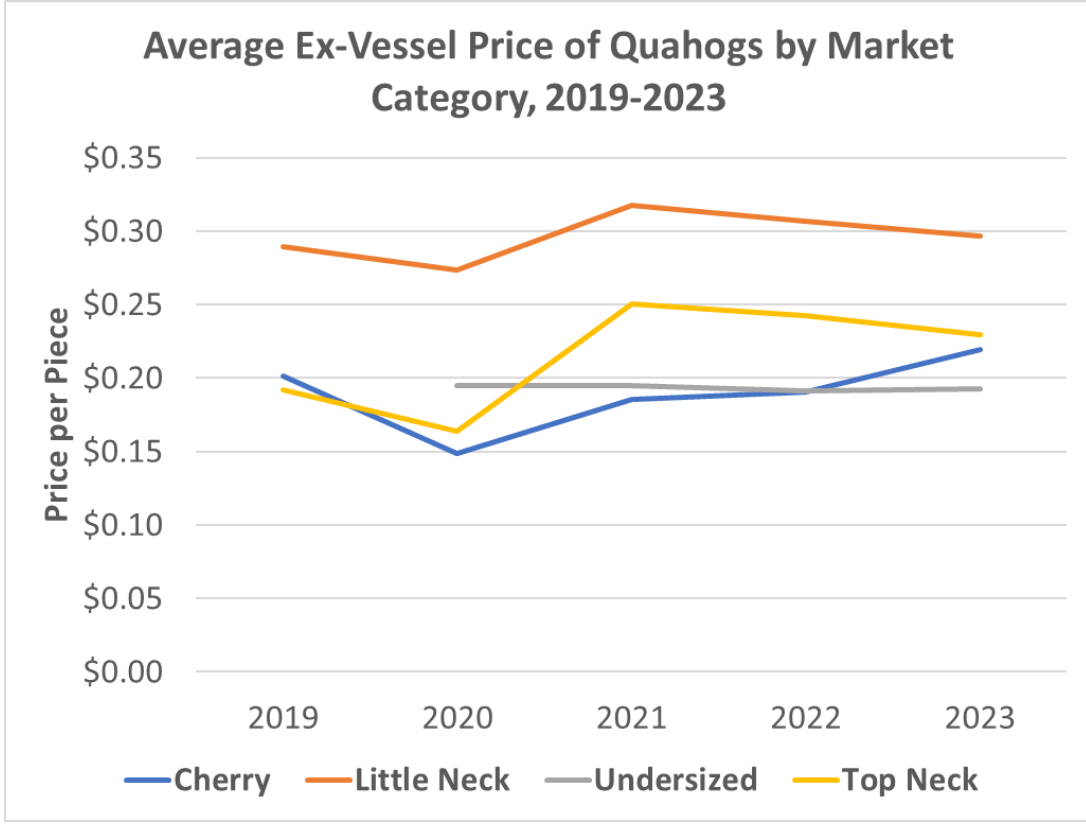
Division of Marine Fisheries

Shellfish Advisory Panel

March 18, 2024

Quahog Price Update

Average Ex-Vessel Price of Quahogs, 2019-2023		
Year	Avg Price per Live Pound	Avg Price per Piece
2019	$1.16	$0.23
2020	$1.17	$0.22
2021	$1.33	$0.27
2022	$1.35	$0.27
2023	$1.38	$0.27



Data Source: SAFIS dealer reports, March 2024
2019 Undersized Quahog price is confidential

Timelines and Requesting Data

- Full 2023 landings and value update will be available by late April/early May 2024 and can be presented at the following SAP meeting

- Please send data requests to the Fisheries Statistics Program by emailing dmf.stats@mass.gov.

- Program staff available for shellfish questions:
  - Story Reed, Assistant Director (story.reed@mass.gov)
  - Anna Webb, Fisheries Statistics Program Leader (anna.webb@mass.gov)
  - Erich Druskat, Data Analyst (erich.druskat@mass.gov)