

NEW BEDFORD  
PORT AUTHORITY

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March 11, 2024

Daniel J. McKiernan, Director  
MA Division of Marine Fisheries  
836 South Rodney French Blvd  
New Bedford, MA 02740

**Re: DMF Shellfish Reclassification - City of New Bedford**

Director McKiernan,

I am writing to follow up on the ongoing discussions between the City of New Bedford (“City”), the New Bedford Port Authority (“NBPA”) and the Commonwealth Division of Marine Fisheries (“DMF”) regarding the reclassification of virtually all City waters as prohibited to shellfish fishing and aquaculture. In particular, I am writing to express the deep concerns of the NBPA and the City regarding the extent of the proposed closure and the multiple unknowns and/or inconsistencies in the data used to support the closure.

Background

As you know, the City and the NBPA have spent the last several years attempting to establish an aquaculture program in the City. The process began over five years ago as meetings with consultants and NOAA to lay the groundwork for City residents and businesses to have the opportunity to commercially grow and harvest shellfish. Among the many steps undertaken by the City and NBPA were legislative changes to the City Ordinances, meetings with regulatory agencies, and outreach to stakeholders. There was also an initial RFI in 2018 to gauge interest in aquaculture in City waters, which generated a strong and favorable response from several interested parties.

From 2018 through early 2023, the process continued with the goal of establishing a full-scale aquaculture program in the City. Then, in the middle of 2023, we were informed by our consultants that there may be an issue with a study being conducted by DMF and its potential impact on aquaculture in City waters. We reached out to DMF at that time to ask about the study and any results therefrom. On September 1, 2023, we were informed that the study was complete, but that DMF was holding internal meetings regarding the results.

On October 17, 2023, counsel for the NBPA met with representatives of DMF where he was presented with the conclusions of the report and the potential actions of the DMF. He was also informed that, before DMF took any action, a meeting would be scheduled between DMF and the Mayor regarding the issues and proposes actions. The next day, DMF issued a closure of certain areas of the City. In response



to City questions regarding that action, on October 21, 2023, DMF responded that the understanding from the meeting...

“...was that no additional areas would be closed prior to meeting with Mayor Mitchell and other city employees or representatives to explain the implications of the model findings and how we can work together to try to minimize impacts from closures. Please know that DMF feels the full weight of this issue and that DMF Director Dan McKiernan and Deputy Director Bob Glenn will be intricately involved in the decision-making process going forward. It is clear that we share the same goal of minimizing closures while maintaining NSSP compliance, and DMF looks forward to working cooperatively with the City of New Bedford toward the best possible resolution.”

Despite multiple attempts to follow up, the City was told that no meeting was imminent.

On January 6, 2024, the City requested copies of the report. On February 16, 2024, DMF informed the City that a meeting would take place regarding the report and proposed actions. On February 20, there was a preliminary meeting between NBPA and DMF about the report and DMF’s proposed actions and on February 21, 2024, after multiple requests, the City and NBPA received a copy of the report.

After coordinating schedules of all parties involved, a meeting between DMF and the Mayor took place last Thursday, March 7<sup>th</sup>. Meanwhile, the day before on March 6<sup>th</sup>, DMF sent notice to interested parties of a meeting to take place on Monday, March 11<sup>th</sup> at 3:00 pm. to “explain federal requirements for safety zones around wastewater treatment plants; review DMF’s previous work to address safety zones and efforts made to maintain traditional shellfish fishing opportunities while addressing public health concerns; describe DMF’s action plan for Buzzards Bay and how this may impact shellfish growing area classifications for the region moving forward; and take questions and comments from the public.”

### Issues

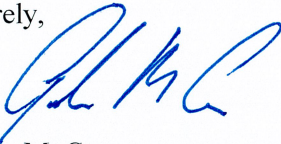
At the outset, the City has issues with the delay between the DMF receipt of the report, the City’s receipt of the report and the subsequent meeting with the Mayor. If the intent of the state was “working cooperatively towards the best possible resolution”, the result has not been remotely satisfactory. DMF informed the Mayor of the report on March 7<sup>th</sup> and presented the reclassification of New Bedford waters as a fait accompli. The fact that DMF had already set up a “stakeholder” meeting for two business days later to make the reclassification decision public underscores that the briefing for the Mayor was a perfunctory step without any interest in feedback or questions.

As the report and the subsequent consequences of DMF’s decisions will have an extremely detrimental impact on the City’s ability advance its aquaculture goals, the City should have been given time to review the report, its findings and the proposed DMF actions back in October when DMF knew what the probable outcome of the report would be. For there to be almost four months of delay on the state side and then inform the City that DMF is “required” to inform the public immediately after the meeting with the Mayor seems unfair and certainly not in keeping with an intent to “working cooperatively.”



While we have had only a short amount of time to review the report, attached are a set of preliminary questions from the city's consultant on the report itself and DMF's planned actions. In the meantime, we hope DMF will take the concerns detailed in this letter – as well as the likely comments to be received at Monday's public meeting – and pause the implementation of the planned re-classification until a more robust and fulsome public dialogue can be held.

Sincerely,



Gordon M. Carr  
Executive Director  
New Bedford Port Authority

CC: Mayor Jonathan Mitchell  
Blair Bailey, General Counsel, NBPA  
Jamie Ponte, Director, Department of Public Infrastructure

Attachments



## Memorandum

**To:** *Jamie Ponte and Blair Bailey*

**From:** *Bernadette Kolb and Paula Kulis, PhD*

**Date:** *March 11, 2024*

**Subject:** *Review of Estimation of the Sewage Water Dilution from Wastewater Treatment Plants in New Bedford and Fairhaven*

CDM Smith has conducted a review of the November 2023 report – *Estimation of Sewage Water Dilution from Wastewater Treatment Plants in New Bedford and Fairhaven* -- prepared by SMAST/UMassD and the Division of Marine Fisheries and prepared the following comments.

### General Comments on the Project Scope and Execution

1. Given the potential consequences to the economy in southeastern Massachusetts, DMF should have the report subject to a formal independent peer review. We believe the report should be enhanced per the comments below prior to conducting the peer review.
2. Given the scale of the model results, it would have been better to include all 5 wastewater discharges on the west coast of Buzzards Bay (both individually and collectively) to assess the impact of the 2019 FDA *Guide for the Control of Molluscan Shellfish* on Buzzards Bay: Wareham, Marion, Fairhaven, New Bedford, and Dartmouth.
  - a. For New Bedford, this would allow a better perspective of whether it can take actions at its treatment plant to allow a different classification of some shellfish areas.
3. The documentation in the SMAST-UMass *Estimation of the Sewage Water Dilution from Wastewater Treatment Plants in New Bedford and Fairhaven, Massachusetts* report is insufficient to permit review of its methods and findings and should be improved. See additional comments below.

### On the National Shellfish Sanitation Program Dilution Guide

4. The calculation basis of the 1000:1 and 100,000:1 dilution results and how these meet the thresholds in the FDA model ordinance should be discussed. The model results appear to be volumetric dilutions without accounting for decay of a hypothetical contaminant. And thus, appear to be overly conservative given male-specific coliphage (MSC) follows a log-linear decay trend; for example, a 27-day experiment found the coliphage was not detected in 6-8 days. <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2019.00269/full>
5. The dilution requirements are driven by opening commerce of shellfish with the EU. It points to the possible need for a separation of opening/closure requirements for commercial and recreational shellfishing. Or an understanding if local shellfishing interests seek to market to the EU.

## On the FVCOM Model Configuration

6. Given the focus on the movement of plumes in the New Bedford Harbor complex and adjacent waters of Buzzards Bay, it appears to be a significant limitation that some of the model's forcing does not include local information.
  - a. River flows – model documentation states that river flows are included using USGS gage records. There is no USGS gage on the Acushnet River at the head of the harbor, which implies that this critical inflow is not included in the model. Previous studies have shown that large rain events can affect the mixing in the harbor complex for many days; the absence of the largest local freshwater input is likely to have significant impacts on modeled transport and the reliability of model results.
  - b. Wind – The report speaks to unreliable wind data at Nantucket Shoals and shows wind roses for Mass Bay; both wind gages are dozens of miles from New Bedford and will not accurately represent the passage of major weather systems, nor the occurrence of summer wind lulls, both of which have a significant influence on mixing in the harbor complex. A comparison between the wind field applied in the model and the wind field from local airports and/or the New Bedford Hurricane Barrier should be provided, as wind is a primary driver in circulation at the study site. Applying large-scale regional winds to the study area could significantly alter modeled transport pathways and mixing.
7. An explanation should be provided as to why 2021 was selected and how that year compares to long-term averages for all model major forcing functions – precipitation, wind, effluent flow etc.
8. The report should provide more specifics of the model representation in Buzzards Bay – including point sources, tributaries, model mesh, and bathymetric features.
9. The placement of the Fairhaven and New Bedford outfall termini appear to be incorrect based on report Figure 2. Coordinates for the outfall termini should be provided so this can be checked.
10. The 3/7/2024 DMF PowerPoint indicates that a new algorithm was used to input the wastewater effluent into the model mesh that differed from the algorithm used for Scituate. The report refers the reader to the North River (Scituate) report to understand the integration of effluent into the mesh. This contradiction should be resolved, and the model report should explain how effluent was integrated with the far-field model.

A comparison of this representation to that resulting from an initial dilution model should be made.
11. The resolution of the model mesh at the two discharge sites should be described, and a figure depicting the model mesh those sites should be provided.

## On Model Simulations

12. The FDA model ordinance specifies that the “decay rate of contaminants of public health significance” as minimum criteria to be considered. The SMAST-UMassD report does not discuss decay, which implies that the model simulates a conservative pollutant. The model

analysis should re-done with decay included, which is particularly important because the decay of MSC expected in receiving waters (see comment 4).

13. The FDA model ordinance also discusses the need to consider travel time. Model results should be provided in terms of travel time.
14. The report should discuss whether any of the model calibration points are in Buzzards Bay, and, if yes, provide the comparisons.
15. The model's calibration to velocity and stratification should be explained, particularly locally to the harbor complex and Buzzards Bay.
16. An explanation should be provided of how the model results were used to develop surface and bottom dilution contours. That is, was only a single layer used or were dilutions averaged across vertical layers?
17. The applicability of a monthly or seasonal average dilution as the metric to evaluate against the FDA Guide should be discussed. As should the frequency of model results (e.g., 15 minute, hourly, daily, etc.) used to calculate those averages.
18. Additional explanation should be provided interpreting the model results by season or month. A comparison of seasonal and monthly results should discuss potential explanations for differences in results.
19. The report discusses model results "with more significant impact" (without definition of what that means) seemingly related to dilution in the near field. Since this is a far-field model that cannot represent near-field mixing dynamics, model results near the discharges where mixing is influenced by the discharge plume itself should not be relied on.