

**Marine and Fresh Water Quality Committee
Meeting Minutes
February 27 2023 (Nauset Room and via Zoom)**

Attendees: Carol Etzold, Mary Griffin, Ed Hafner, Carolyn Kennedy, Richard Levy, and Judy Scanlon (Chair)

Regrets: Judith Bruce, Valerie May, Robert Mullin

Other: Michael Herman, SB Liaison

AGENDA

1. Call to Order.

The Chair called the meeting open at 10:02 AM.

2. FY24 Water Quality Budget Funding Request-Status Update.

The Chair reported the FY24 proposed budget as presented to the Committee on February 13th was submitted immediately so the reworded text for items 4 and 5 which we offered was not needed this time. (See Appendix 1) There will be an opportunity to change the warrant language if and when it becomes an article.

Regarding Item 5 titled Remediation of Crystal and Pilgrim Lakes, the Chair noted that there was a request in FY22 for \$90K for this purpose, however the SB already allocated \$40K for an alum treatment of one lake. So, we are missing \$25K for permitting for first lake, as well as the funding of \$25K for permitting and \$50K for alum treatment for a second lake. Therefore, the FY24 proposed funding request is for an additional \$100K.

Mary asked about the status of the Committee's request regarding Item 4 Water Quality Data and Analysis and Report line item in the proposed FY24 budget proposal. The Chair reported that Item 4 is still in the funding request for \$26K; however, it will require more detail if it is to be approved for an article.

The Committee decided on February 13th to postpone the request for funds to cover a Boland Management Plan for this budget cycle.

3. 2023 Season Freshwater Lake and Pond (spring/April WQ sampling), and Summer Estuary WQ Monitoring-Planning Updates. (NOTE: This will be a recurring agenda item during the advance planning, and monitoring program time periods).

The Chair reported that the six new DO meters are at SMAST for calibration and will be ready by April 1st. The bottles for freshwater sampling are ready and the Chair will notify SMAST of the Committee's proposed sampling dates.

We still need the samplings dates from Bob Duncanson for the Chatham's estuaries.

4. Wastewater Advisory Committee-MFWQ Committee Representative Report-Judith Bruce (WAC Rep.).

Judith submitted the following update since she could not attend the meeting:

"The Committee unanimously voted to recommend a warrant article to the Select Board to fund the preliminary design for a Phase 3 sewer plan to protect Crystal, Pilgrim and Lonnie's Pond. The area to be studied as part of the preliminary design is considerably larger than what the final sewer footprint will include in order to provide options and enable future work and connections.

This plan will include 29 properties for Crystal Lake, 32 for Pilgrim and an as-yet to be finalized # for Lonnie's awaiting final nutrient reduction calculations. While these numbers for the fresh water lakes are greater than the number quoted by Ed Eichner, he was referencing only properties currently producing nutrients to the lakes; this includes current, near-future contributors, vacant or conserved properties (included for these purposes but known not to be contributing now and in some cases ever) and "incidental properties" which are those properties that the pipe must pass and will therefore be connected despite not contributing to the particular watershed.

Pilgrim presents a particular issue in that the properties which are on Cygnet and Rohmer's Lanes need to be connected to the system or handled in another manner.

At present, under consideration and being further investigated are:

- 1) an easement under private property to connect to the rest of the sewer properties in this phase;*
- 2) a small package plant which would direct the phosphorous effluent out of the Pilgrim watershed;*
- 3) phosphorous reducing I/A septic systems.*

In a follow-up meeting to WMAC, DEP confirmed my concern that State Revolving Funds (SRF) cannot be used to fund wastewater approaches which only address phosphorous. So the Phosphorous I/A systems are the least attractive approach, especially in light of the sketchy amount of phosphorous actually removed. A sewer or package plant which would address both nitrogen and phosphorous are eligible for SRF funding. DEP expressed approval for the work done to date between Orleans and Eastham to initiate a watershed permit for Nauset Estuaries and Rock Harbor and offered advice on next steps.

Preliminary design is the first funding step of what is generally a three-year wastewater phase. It can probably be funded from our wastewater designated short term rental fund without requiring over-rides as it is a relatively small amount of money."

The Chair praised Judith for being an advocate for the sewing of both Pilgrim and Crystal and noted that some of the upgradient properties around Pilgrim Lake are difficult to reach for sewerage. This might speak to the use of alternative treatment systems.

Ed Hafner mentioned that he finds the nitrogen attenuation calculations presented at the Committee meetings difficult to follow, especially for Lonnie's Pond. He is not sure how the 0.5-4.0 nitrogen contributions calculations are calculated. He feels that this needs further explanation – possibly from the

WWAC. The Chair noted that the calculations are probably based on individual property water use. However, what is not clear are the factors that impact the degree of nitrogen attenuation which is are calculated?

The Chair mentioned that a conservative approach was taken by SMAST in calculation the inputs into Pleasant Bay.

Action:

1. Ed Hafner will write out his questions to the WWAC.
2. The Chair will invite Mike Giggy to a future Committee meeting to explain nitrogen attenuation the calculations.

5. Pilgrim Lake Herring Run-Spring 2023 Volunteer Visual Count Preparations-Progress Update (Volunteer Coordinator Rich Levy).

The Chair reported that Brad Chase said video counting equipment will be put into place around the 20th or March. Nate Sears reported that early arrival herring scouts have been seen in Middleborough and Brad Chase said that they have arrived in other locations such as Buzzards Bay and Wareham.

Rich reported that we still have a few open counting spots on several of the teams. There will be an in-person Captain's meeting later this month to get all nine team captains on the same page and to vet the list of Individuals who can act as substitutes.

Rich reported that he is working on a written overview of the herring run counting and management processes.

At some point, Rich would like to repurpose Mary's Cape Cod Chronical article from last year as a call to action for volunteers.

Action:

1. Rich to work with Mary to update her article as a call for volunteers, if necessary.

6. Cape Cod Commission-(CCC) Freshwater Ponds Initiative.

On February 10th, the Chair and Carolyn Kennedy met with George Meservey, Kevin Galligan and representatives of the Cape Cod Commission, Erin Perry, Deputy Director, and Tara (Nye) Lewis, Water Resource Analyst. A presentation was made on a CCC collaboration with APCC on regional water quality monitoring program and Barnstable County freshwater pond profiles.

The CCC representatives wanted to know, based on our experience, what are the key priorities and challenges the MFWQC sees related to freshwater pond management. The Chair and Carolyn responded that we need funding, more volunteers, and an expanded outreach to citizens on water quality achievements and challenges.

The Chair and Carolyn described our Orleans water quality programs and reported that Orleans is in good shape as it has technical resources (SMAST), 22 years of freshwater ponds data, past PALS

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program data and a MassDEP/EPA Quality Assurance Program Plan (QAPP) from SMAST and the Center for Coastal Studies. We can provide our experiences to them. However, the Chair believes that we should remain in control of our own water quality efforts.

7. Review and Approval of Meeting Minutes- January 23, 2023.

The Clerk will send out Judith's changes to Committee for review prior to the next meeting.

Mary recommended that we have a time limit for providing comments. Rich suggested two weeks.

8. Announcements

The Brian Howes remembrance was held Saturday in Orleans.

9. Public Comment

There were none.

10. Adjourn

Motion: On a motion by Carolyn and seconded by Ed, the Committee voted 6-0-0 to adjourn at 11:05 AM.

Future MFWQC Meeting Dates: YR 2023 – 03/27, 04/24, 05/22, 06/26, 07/24, 08/28, 09/25, 10/23, 11/27, and 12/18.

Approved April 24, 2023. Vote: 5-0-0

Handwritten signature in blue ink, appearing to be 'RJB', with the date '04/25/23' written below it.

Appendix 1. FY 24 Funding Needs – Water Quality. January 23, 2023

FY24 FUNDING NEEDS - WATER QUALITY

Required for Permit Compliance: **\$96,700**

1. Lonnie's Pond Monitoring - \$47,000

Water quality sampling, monitoring of oyster deployment, weigh-out and annual report, as required to meet permit requirements of Pleasant Bay Watershed Permit and document nitrogen removal through aquaculture. SMAST is reviewing 2022 data that indicates a significantly greater nitrogen reduction from bottom sediment than in previous years.

2. Cedar Pond Monitoring - \$30,000

Required monitoring under the MADEP Superceding Order of Conditions. Adaptive management of pond outlet has demonstrated progress toward the Town's water quality goal for the pond.

3. Summer 2021 Marine Water Quality Sampling - \$19,700

Supports sampling and analysis of Nauset Estuary sampling stations and three Cape Cod Bay creeks. This is the same sampling contract amount since the Town returned to limited sampling in 2008.

Additional Water Quality Funds Requested: **\$181,500**

4. Water Quality Data Analysis & Report - \$26,500

Residents regularly request information on the health and trends of the water bodies in and around the town. This effort would aggregate and graphically display water quality data trends for the Town's five major estuarine basins (3 Cape Cod Bay basins, Nauset Estuary, and Pleasant Bay). A summary of the Town's robust data sets has never been done and will support public understanding of water quality issues.

5. Remediation of Crystal Lake and Pilgrim Lake - \$100,000

Management plans have been completed, and recommended extending sewers. Since this is outside the planned sewer area of the Consensus Agreement, the short-term alternative would be to complete an alum treatment or begin an aeration project. They are both Great Ponds, so some of the issues with Uncle Harvey's Pond alum would not be relevant. Estimate includes \$25,000 for permitting for each pond, plus \$50,000 for the treatment of one of the ponds. \$40,000 was allocated in FY22 for one pond, this funding would cover the other pond.

6. Boland Pond Management Plan - \$55,000

Year 1 would be analytical work in the pond - stormwater monitoring, sediment cores, bathymetric measurements, phytoplankton review, Water quality sampling & analysis, and 1 year deployment of a SONDES continuously measuring device.

Total Funds Requested: \$278,200