

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

Attendees: Judith Bruce Carol Etzold, Mary Griffin, Ed Hafner, Richard Levy, Valerie May, Robert Mullin and Judy Scanlon (Chair)

Regrets: Carolyn Kennedy

Other: Michael Herman, SB Liaison; Nate Sears, Natural Resources Manager, Town of Orleans

AGENDA

1. Call to Order.

The Chair called the meeting open at 10:00 AM.

2. Orleans Herring Runs-Nate Sears, Orleans Natural Resources Manager-Describe Potential Pilgrim Lake NRCS Grant (and update on other ongoing Orleans herring run activities).

Nate Sears updated the Committee on an opportunity to apply for some significant funds to upgrade the stormwater remediation control on Herring Brook Road (DPW Funding) and to update and significantly renovate the Pilgrim Lake herring run and fish ladder. He reported that the Town will be applying for a Natural Resources Conservation Service (NRCS) Grant proposal which is estimated to cost at least \$1.5 M for deepening the fishway and restoring the fish ladder. The NRCS grant would cover 100% of design and 75% for construction costs. The town would be applying for those funds – but before applying we have to show that we can authorize the remaining 25% of the cost. Town would be paying 100% of permitting, so we would need to fund about \$450K. We are also looking at other available funds in the waterways management fund. The strategy would be to take \$100,000 from water ways improvement fund now for initial permitting and \$350,000 ask in the Town Warrant. The ask would be for the authorization to spend in the next 3-4 years. Once completed, the improvements to the run and new fish ladder system are expected to last 100 years.

Nate also noted that the herring run has had issues with water levels (we have been rationing water flow). The run is silting in and needs to be deepened. Last spring, the adult herring have to swim on their sides in order to go up or downstream. Then later in the summer and fall, if the low levels persist, the fry can't get back out in the ocean. Last year there were about 20,000 alewife entering Pilgrim Lake. This year the herring arrived on March 23rd.

The Chair reported that we have historical data in the run since 2008 and have seen an increase in recent years in the numbers of arriving herring. This puts us at an advantage when applying for the grant.

Judith discussed cyanobacteria and their food chain connection to planktonic daphnia and then the herring. Herring fry consume daphnia which, in turn, allows increased cyanobacteria

There was a brief discussion of Cedar Pond and the herring there. Brad Chase (MA DMF) and Nate are both involved with the management of the water control structure. The goal is to lower salinity in the pond by managing boards at the outlet, restricting salt water intrusion in the winter and months when the herring are not migrating in to potentially spawn, and to let the herring fry out in the late summer and fall.

Committee members noted that the culvert under Rock Harbor Road is the next thing that needs to be addressed.

Action:

1. Committee to write a letter of support for the Natural Resources Conservation Service (NRCS) Grant.
2. Committee members to provide the Chair with materials for a 1-minute video to be used with the Select Board. The Chair, Ed Hafner and Valerie May to participate in filming a one-minute video in support of the funding application.

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

The Chair reported that the Orleans herring run is the most active run so far in the area. The eel pass is in place.

Rich gave a brief update on the volunteering. All time slots have been taken by volunteers.

Mary is willing to cover multiple slots. Carol suggested that, when necessary, we might rely on overlapping counters to fill in for someone before or after them.

Actions:

1. Rich to contact the team Captains about another herring run clean out – plan for this week or next.
2. The Chair to work with Nate Sears to arrange for him and Brad Chase to discuss Cedar Pond and the herring run with the Committee at a future meeting.

4. FY24 Water Quality Budget Funding Request-Final Update/Status.

The Chair introduced the subject by asking for any input from the Committee on the Select Board meeting.

Ed Hafner requested to read his thoughts on the Select Board FY24 budget proposal discussion. (See Appendix 1). : In summary, Ed would like to see the Committee work more closely with the Select Board in matters related to the charge of this Committee since we both have “the same goal, namely, clean waters.” He believes that following the science will give us the best chance for getting there.

The Chair suggested that we wait until sometime in the future to discuss the alum treatment proposal. One member suggested that if there is a cyanobacterial bloom in one of the lakes this summer, we can make a request for funds at the fall meeting. Judith agreed to share some references on alum treatment she has on the subject as requested by Robert.

The discussion moved to the general disappointment that the water quality data analysis project was not funded by the Select Board.

Mary wondered if SMAST could include this type of data analysis as part of their currently funded activities through the contract with the Town and that the request should be made to SMAST. Judith agreed; she suggested that we need detailed data analysis and technical reports, at intervals of perhaps 10 years, as well as a simple graphical presentation of annual data like the Center for Coastal Studies provides. She suggested that we could poll the citizens to confirm this.

To be fair to SMAST, Rich recommended that the Committee better understand what it costs APCC and other groups to analyze their water quality data and post the results to the public. Bob recommended that we connect with SMAST to provide us with feedback on the points raised by Judith and Mary.

Judith also proposed that we better understand what CCC and APCC will be doing in the future.

(Note: For the record, we lost the capacity to hear any audio feedback from those online at 11:02 AM.)

There was a proposal to establish a sub-committee to explore water quality data analysis presentation and report back to the full Committee. However, there were so many interested that it would constitute a quorum, so further discussion will be scheduled for the next Committee meeting.

Actions:

1. The Committee needs to further define what we want to do locally to support our citizens' desire for more information. The topic will be carried over until April meeting.

5. 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 active water quality monitoring time periods).

There was a request by Judith to change the sampling date to Monday April 10th and Wednesday April 12th. The new dates were acceptable with those Committee members participating. The Chair confirmed that SMAST is OK with those dates for receiving samples.

The Chair reported that she helped Carolyn assemble all the equipment and it is ready for the sampling. Judith will provide some training prior to the sampling.

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

Judith reported that she has not seen the final language on any of the spring Town Warrant Articles. The Phase 3 ask will be \$2.35M for preliminary design and a map is available showing the work plan areas (estimated \$23M total cost).

The plan will determine the balanced nitrogen load reduction we need to remove from Lonnie's Pond and then refine the plan. The upgradient properties to Crystal and Pilgrim will be taken care of in one way or another; the preliminary design process will determine which properties will be included in sewerage.

It is assumed that the Committee will support the warrant since it is consistent with the Committee's management recommendations for both Crystal and Pilgrim Lakes. The WWAC is discussing a public service announcement on the project.

7. Review and Approval of Meeting Minutes- January 23 and February 13, 2023.

Both set of minutes were approved with the edits requested by those who responded to the request for review. The Clerk reported that the most recent edits were grammatical.

January 23, 2023: Ed motioned to approve; Robert seconded. Approved as amended. Vote: 7-0-0.

February 13, 2023: Ed motioned to approve; Carol seconded. Approved as amended. Vote 7-0-0.

8. Announcements

There were no announcements.

9. Public Comment

Unfortunately, we were unable to hear the online participants.

10. Adjourn

Motion: On a motion by Robert and seconded by Carol, the Committee voted 7-0-0 to adjourn at 11:46 AM.

Future MFWQC Meeting Dates: YR 2023 – 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



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Appendix 1. Ed Hafner comments on the March 15th Select Board Meeting discussion of the FY24 Budget Proposal.

"I would like to say a few words about the Select Board meeting that happened on March 15th. At that meeting, the request from this Committee for funding alum treatments of Pilgrim and Crystal lakes was turned down. I saw no clarity for why the Select Board were opposed to it. I would say that the discussion and reasoning for their decision was confused at best.

Before commenting further, however, I would like to acknowledge that we all want the same thing and that is to protect and enhance water quality in town waters. The town's citizens and Select Board deserve a lot of credit for supporting the expensive but necessary sewer work needed to achieve that end. Nevertheless, I feel open and clear debate on how and when to do the additional steps needed to complement the sewer effort should be encouraged at town meetings, where the public can hear what's being said. So, my comments today are made in the vein of a hopefully cheerful and civil exchange of our respective opinions.

Among the understandable reasons for the SB in denying our request was the question of cost, when so much is already being asked of citizens with regard to the sewer installation project the town is doing. Cost is a legitimate concern, even if the amount of money we requested for the alum treatments is dwarfed by the sewer project itself and by other new projects the town is willing to put to the voters at the May town meeting.

I think the main reason for the denial of our funding request is that alum has a bad image in the public mind. As one SB member said, I can't accept an alum treatment except as "a last resort." Even this concession was for a response to a future disaster and not to prevent one. The science doesn't support this reluctance to using alum, but reluctance is clearly a popular feeling. So, I propose that, in the future - and I'm thinking in the next year or two - if we want to change minds, we need to do an education effort regarding alum.

Last week, Andrew Gottlieb of the Association to Protect Cape Cod (APCC) spoke at the Orleans Yacht Club for an Orleans Conservation Trust event focused on Cape Cod water quality. His basic message is that things aren't looking good and are getting worse. When someone asked him about alum (not me) he said he had mixed feelings, basically not happy with the idea of treating excess chemicals in a lake by adding even more chemicals, like a "heavy" metal. He was wrong, aluminum is a light metal, and moreover, adding it to an impaired lake actually sequesters phosphorus and itself rather quickly. So, there is obviously work to be done with regard to explaining the uses of alum.

One SB member denied our funding because he said we haven't properly presented the idea of using alum in these lakes to the public. However, the town has already treated Uncle Harvey's Pond with alum, and this Committee explained at that time why it was chosen and how it works. That obviously hasn't answered everyone's questions, although alum is described and listed as an "applicable" treatment in the Pilgrim Lake Management Plan that discusses in detail several options for the town to choose from.

Again, we all want to reach the same goal, namely, clean waters. I say, let's work more closely with one another, follow the science, and give ourselves the best chance for getting there."

