

**Marine and Fresh Water Quality Committee
Meeting Minutes
June 26 2023 (Nauset Room and via Zoom)**

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

Regrets: Mary Griffin

Other: Walter North

AGENDA

1. Call to Order.

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

2. 2023 Season Freshwater Lake and Pond WQ Sampling, and Summer Estuary WQ Monitoring-Planning Updates (Carolyn Kennedy, Judith Bruce, and Chair). (NOTE: This will be a recurring agenda item during the advance planning, and active water quality monitoring time periods).

Freshwater

The next pond sampling will happen in August. Judith has coordinated our pond (and estuarine) sampling with Jamie Demas of OPC who coordinates APCC cyanobacterial sampling.

Estuary

Judith thanked Carolyn who attended the in-person sampling certification training in Chatham. Certifications are going well; however, not all volunteers have reported in and they need to do so. All sampling sites are covered.

On July 6th, the Nauset Estuary sampling times window is between 6:00-7:30 AM and the Pleasant Bay sampling timed to the falling tide is 7:30-9:00 AM which means that all boats need to be out very early. This sampling window is important since the data needs to be consistent and accurate year to year, especially as we implement septic system wastewater reductions.

Carolyn reported that all kits were ready for both Nauset and Pleasant Bay samplers.

PALS

Carolyn reported that the end of summer pond sampling is usually done between August 15 and September 15th. Judith prefers that the sampling being done in August to keep the sampling dates consistent with previous years. Because we already have water quality sampling the week of August 21st; we determined that only Monday, the 21st or Wednesday the 23rd would work for volunteers on the Committee. The rain date will be the 30th of August.

3. Town Estuary and Freshwater Ponds Data Summary Updates and Citizen/User Friendly Data Presentation-Renewed Discussion. Additional Public Education Efforts/Ideas Related to Water Quality May Also Be Discussed.

The Chair reported that George Meservey will be looking for a source of funding for the project. As discussed at previous meetings, the Martha's Vineyard site (with 2-page estuary pond report summaries) seemed to best model to meet our needs. The MV web site includes how the ponds and lakes link to their wastewater management plans and MA DEP TMDL recommendations, as well having a calculated water quality health score (water quality index). SMAST provided the water quality data and prepared the 2-page summaries for the site. Judith mentioned the Eastham pond water quality data pages as another good example.

The Committee discussed what data we would like to include in the case of ponds and estuaries. It was agreed that the Committee would like to see a minimum of total nitrogen, dissolved oxygen, and secchi for estuaries, and total phosphorous, dissolved oxygen, and secchi for ponds, over extended period of time. Most would like to go back to at least 2020 or earlier. Other information such as a bathymetric profile would be beneficial. (This has already been done for FW ponds.)

There was also a discussion of who would provide the updates and when updates would be made to keep the site relevant. The thought was that updates would be made annually. The Committee members agreed that there will be a challenge updating our annual water quality data – however the Martha's Vineyard site did show long-term data.

Carol and Ed discussed the need for a social media presence for the Committee and Town water quality initiatives. Also, on the Town site, there need for live links to relevant water quality reports.

Rich stressed the need for a consistent organization and data representation from water body to water body.

On a related topic, Ed reported on the water quality education he led for second graders at the Orleans Elementary School which is reported at the Instagram OPC site.

1. Actions

Rich Levy and the Chair to meet with George Meservey to update him on what the Committee decided to include and format, and request support in defining the possibilities for portraying water quality data on the Town website and to determine if our Committee can have a Facebook and/or Instagram page. Rich to investigate any lessons learned MV site with them.

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

Judith reported that the new DEP septic regulations will be released in the next two weeks. There is no issue for Orleans residents as we have a wastewater plan and watershed permit in place and have started the implementation. In addition to the Pleasant Bay watershed, there are two other nitrogen-sensitive watersheds in Orleans that are shared with Eastham: Nauset Harbor and Rock Harbor. The Town is working with Eastham (the Town has a signed Memorandum of Understanding) in developing joint nitrogen attenuation plans for both these areas.

Mike Giggey is the Town technical advisor who helps us with target nitrogen reduction estimates. His input is important since finished TMDLs were never issued for Nauset Estuary and Rock Harbor, and he helps the WMAC when clarification is needed.

The Town will be breaking ground for the Phase 2 - Meetinghouse Pond this September. The Tides End area was not included in Phase 2; since we are under the budget approved it may now be included.

We are just beginning the preliminary work on Phase 3 including basics like ground water flows. Completion of Phase 3 would be 2028.

A revised comprehensive wastewater plan (CWMP) needs to happen by the end of this year, and the focus should be on Pleasant Bay (for which a watershed permit exists and we have reduction targets for 5 years). We are unlikely to tackle more of Cape Cod Bay and Nauset Estuary until we know the exact reductions needed and knowing the requirements for both Eastham and Orleans. One option for Eastham might be to use the Orleans wastewater plant for wastewater disposal. Carolyn suggested coordination with the CWMP.

She reported that we also need more consideration of nitrogen reduction in Mill Pond.

The Chair brought up Baker Pond and asked what should we do to try to move discussions forward as we have a final management plan with implementation recommendations. She reminded the Committee that Dr. Brian Howes had reported that Baker Pond was at a tipping point.

Carolyn suggested working with wastewater committee and George Meservey, including a discussion with the Town of Brewster. Judith suggested that the new Town Manager would be best to lead coordinated efforts with Brewster.

5. APCC Cyanobacteria Monitoring Program, and OPC Sarah's Pond Oxygenation Project (Ed Hafner, Judith Bruce).

APCC

Ed reported that none of the Orleans ponds have had any issues. Several ponds in Mashpee, and School House in Hyannis, are having blooms and advisories. Ed said that it's early for this to be happening.

OPC Sarah's Pond.

Judith reported that this year has seen the best water quality to date – Clarity is at 3.4 meters. The aeration system needs to be always on line however – if it breaks you only have 5 days to restart. Otherwise, the pond can't recover. The project ends this year.

Judith suggested that this project, as well as future projects of this type, would probably entail a town or abutters leasing the equipment and having an arrangement with a machine maintenance company like Solitude.

6. Pilgrim Lake Herring Run-Spring 2023 Volunteer Visual Herring Count Program- Final Count Season Summary (Volunteer Coordinators Rich Levy, and Chair). NRCS Grant Application Update (if available).

The Chair reported that going up stream herring counts were higher this year, around 2100 vs. 1500 last year.

There was a brief discussion of areas for improvement in 2024. Improvements in the data sheets to clarify the team numbers and sampling times may be needed. One suggestion was a "wallet" sized laminated "business" card with team information or a sheet protector with team and times information. Judith wanted to see the results for 2023 summarized and distributed to the team captains and volunteers as soon as possible.

The Chair noted that the Town may host the Massachusetts Annual Herring meeting this fall. One member suggested trying the new police station which has a large room.

Judith brought up that there some discussion about the impact of summer Pilgrim Lake beach use on fry migration out of the lake. She wanted to know if there is need for all of the herring fry to leave Pilgrim Lake by the fall. Brewster has identified daphnia as the primary food for herring fry and daphnia are thought to consume cyanobacteria, so fry remaining in the lake may be impacting cyanobacterial populations. Since there may be some differences in what Brad Chase and Scott Johnson think about herring fry migration out of Pilgrim Lake, having Brad attend a future Committee meeting to discuss herring lifecycle would be beneficial.

There was a brief discussion of which Orleans committee has responsibility for the Orleans Herring Run and the visual counting program. Currently, the Herring Run and the visual count is not mentioned in our charge. The Chair said that she believes it would depend on who is involved in the scientific and volunteer oversight. The Chair will seek some clarification.

Actions

1. Rich and Judy to write a thank you letter to Karen and Robert Palumbo at 6/8 Alewife Road for use of their property for access to the run.
2. Rich and the Chair to take a look at the existing Herring Visual Count data sheets and see if improvements can be made while conforming to MA Department of Natural Resource requirements.
2. The Chair to ask Brad Chase to come to a future meeting to discuss the life cycle of the herring in Pilgrim Lake.
3. Judy to speak with George Meservey about possible locations for the Annual Herring Meeting.

7. Review and Approval of Meeting Minutes - May 22, 2023.

The May draft minutes were approved as amended by several Committee members. Motion to approve by Carolyn and seconded by Judith. Vote: 7-0-0 (Note: Bob Mullin voted as Valerie May had left the meeting prior to this discussion).

8. Consider/Add Topics for Future Agendas - Pesticide Home Rule Petition Article (review recent Draft and compile comments/questions), Introduction/Meet the New Town Manager (July 24), Baker Pond Management Plan, etc.

The above topics will be considered for future Committee agendas as necessary. The Chair asked if there were additional items the Committee members would like to add at this time. Ed mentioned that a discussion of public education on water quality should be added in the near future.

The Chair reported that the new Town Manager will attend our Committee Meeting in July.

9. Announcements

The One Cape Meeting is scheduled for July 31st and August 1st. The agenda not yet defined.

The Select Board is going to clarify Committee term limits. Carol has served seven years. Rich as served 3 years and interested in reappointment. If Carol leaves, the Select Board might elevate one of our associates.

10. Public Comment

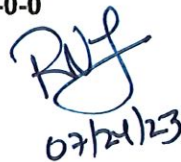
There were no public comments.

11. Adjourn

Motion to adjourn at 12:10 PM. Carolyn motioned to adjourn, then Judith seconded. Approved 7-0-0.

Future MFWQC Meeting Dates: YR 2023- 7/24, 8/28, 9/25, 10/23, 11/27, 12/18.

Meeting minutes approved 07/24/2023. Vote 7-0-0

Handwritten signature in blue ink, possibly 'RJF', with the date '07/24/23' written below it.