



Freshwater Initiative
Monomoy Lens Stakeholder Group

Meeting 1 Summary: March 20, 2024

The first Monomoy Lens Stakeholder Group meeting for the Freshwater Initiative was held on March 20, 2024. The purpose of the meeting was to provide an overview of the Freshwater Initiative, establish a shared understanding of freshwater systems, share data collection efforts, and discuss local observations about ponds and potential outcomes of the Freshwater Initiative.

Following introductions, Cape Cod Commission staff and consultants presented an overview of the Freshwater Initiative, information on the context and ecology of Cape Cod's ponds and lakes, findings on the economic impacts ponds and lakes have on the regional economy, and information and data from the Regional Pond Monitoring Program.

Participants were asked to provide input on the qualities of ponds that are important to their work, what they value about ponds, what information they would like to know from data collection, and what they are hoping the Freshwater Initiative will achieve, as described below.

OF THE FOLLOWING, WHAT DO YOU THINK ARE THE TOP 3 THREATS TO FRESHWATER POND HEALTH?

Participants were asked to select what they believe to be the three top threats to freshwater pond health. The top three selected, in order of largest threat to smallest were:

- Nutrient inputs (phosphorus and nitrogen)
- Pollutants (lead, sediment, pesticides, fertilizer, oil, and gas)
- Invasive species

Other threats marked include:

- Shoreside development
- Algae growth, harmful algal blooms
- Stormwater runoff
- Overuse
- High water temperatures
- Cyanobacteria

Options not selected include:

- Low dissolved oxygen
- Fish kills
- Low water levels
- erosion
- Water clarity
- Litter

WHAT QUALITIES OF PONDS ARE IMPORTANT TO YOU OR YOUR WORK? WHAT DO YOU VALUE ABOUT PONDS?

Attendees offered swimming and wildlife watching as being important and of value.

QUESTIONS ON THE ECONOMIC ANALYSIS? DID ANYTHING SURPRISE YOU?

Attendees wondered how these economic findings compare with other elements of the regional economy, such as beach tourism. Charles Goodhue with Eastern Research Group, the firm who conducted the analysis, noted this is one element of the regional economy, but meaningful in economic value itself.

An attendee asked during what period the economic studies were performed. Mr. Goodhue said generally November 2022 to November 2023.

Another asked how many visitors are there to Cape Cod versus those visiting the ponds. Commission staff said there are approximately five million visitors to the Cape. Mr. Goodhue said there are approximately 1.3-1.7 million visits to Cape Cod ponds and noted that pond visitation may include return visits from the same visitors.

IS THERE SOMETHING ELSE YOU WOULD LIKE TO KNOW FROM THE DATA?

Attendees expressed interest in using data to educate the public and policy makers about pond health. Attendees noted that while it is great that data is being collected, finding trends or correlations to water impairment can be challenging. This can lead to challenges in determining the causes of impairments and may not support the message of improving pond health. There is desire to use data to encourage action, but it can sometimes be difficult to convey a clear message. Attendees asked what the stories are outside of the data that can be used to convey the need for better pond water quality. One example was shared of ponds that are monitored yet experienced a cyanobacteria bloom, where the monitoring data did not explain the reason for the outbreak.

One attendee suggested we may only be seeing high concentrations of cyanobacteria as compared to 30 years ago because we are now monitoring for it. Cyanobacteria has always been around, and they wondered if there is more cyanobacteria now or if we are just paying more attention to it?

One attendee asked if the deepest part of the pond is the best place to be monitored, and questioned if one sampling location in a pond could be representative of the whole pond, asking if additional collection points might be needed to understand the whole pond. He said one sampling location could generalize the whole pond and there is a need for more detailed examination of ponds.

One attendee questioned if data collection was tied to certain hypotheses to ensure meaningful collection of data that can be used to address an identified problem. Commission staff noted that several hypotheses were being examined, but that the complexity of pond systems combined with inconsistencies in past data collection efforts have thus far made it difficult to identify clear relationships on a regional scale.

Attendees asked questions about the cyanobacteria monitoring work of the Association to Preserve Cape Cod (APCC). APCC staff gave a brief overview of their monitoring program. Commission staff noted the Freshwater Initiative aims to consider nutrients affecting pond health such as phosphorus, distinct from but complementing APCC's work on cyanobacteria.

WHAT ARE YOU HOPING THE FRESHWATER INITIATIVE WILL ACHIEVE?

Attendees stated many areas of interest for which they hope the Freshwater Initiative could play a role, such as using information to advocate for sewerage and promoting fertilizer and pesticide reduction efforts and education.

Attendees also stated interest in learning how sea surface temperature trends may influence pond changes and a desire to have more information on biotic indices and information on aquatic assemblages.

The Monomoy Lens stakeholder group will meet again on Tuesday, April 23, 2024, from 1:30 – 3:00pm at the Harwich Community Center.

Meeting 1 Agenda

1. Introductions: Cape Cod Commission (Commission) staff will facilitate the introduction of meeting participants.
2. Freshwater Initiative Overview: Commission staff will provide an overview of the components of the Cape Cod Freshwater Initiative, a planning process to engage stakeholders to protect and restore Cape Cod's freshwater resources.
3. The Context of Cape Cod's Ponds and Lakes: Commission staff and consultants will provide a brief overview of the ecology of ponds within the Cape Cod region.
4. Understanding the Economic Impacts of Cape Cod's Freshwater: Consultants will provide a brief overview of the key findings from an economic study conducted on the impacts that Cape Cod's ponds and lakes have on the Cape's regional economy.
5. The Data: Commission staff and consultants will review observations from the first year of the Regional Pond Monitoring Program and discuss conditions contributing to the changes in water quality in Cape Cod's ponds and lakes on a regional scale.
6. Discussion: Participants will share their observations of Cape Cod ponds and discuss potential outcomes of the Cape Cod Freshwater Initiative.
7. Next Steps: Commission staff will discuss next steps for participants, including future meeting dates.

Meeting 1 Participants

Stakeholder Participants

- Amy Usowski, Town of Harwich
- Greg Berman, Town of Chatham
- Chris Miller, Town of Brewster
- George Meservey, Town of Orleans
- Christine Flynn, Town of Harwich
- Michael Lach, Harwich Conservation trust
- Michele Moloney-Kitts, Friends of Chatham Waterways
- Judith Bruce, Orleans Pond Coalition
- Fran Schofield, Friends of Pleasant Bay
- Dan Wolf, Harwich
- Ned Chatelain, Town of Brewster
- Michael Herman, Town of Orleans
- Peter Lombardi, Town of Brewster
- Sue Machie, Friends of Chatham Waterways
- Kim Pearson, Town of Brewster

- Ann Frechette, Great Sand Lakes Association
- Sherrie McCullough, Town of Brewster
- Amy Von Hone, Town of Brewster

Cape Cod Commission Staff Present

- Kristy Senatori, Executive Director
- Heather McElroy, Natural Resources Program Manager
- Tim Pasakarnis, Water Resources Analyst
- Tara Nye Lewis, Water Resources Analyst
- Jessica Rempel, Natural Resources Analyst
- Michele White, Special Projects Coordinator

Partners in the Regional Pond Monitoring Program

- Julie Hambrook, Association to Preserve Cape Cod
- Kristin Andres, Association to Preserve Cape Cod

Consultants to the Cape Cod Commission

- Liz Moran, Anchor QEA, LLC
- Charles Goodhue, Eastern Research Group