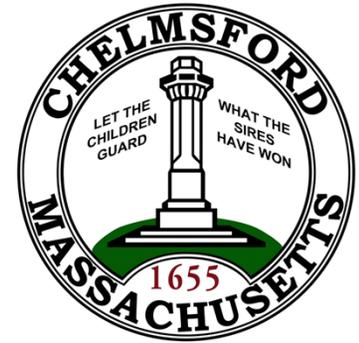


Freeman Lake
Public Input
Session



12/5/2023



Project Background

- Summer 2021 - increase in rain, weeds, and resident complaints
- Summer 2021- hand pulling of weeds in Varney beach area to keep beach open
- Fall 2021 – funding appropriated to treat Freeman Lake



Project Background (Continued)

- Spring 2022 - NOI permitting submitted to Conservation Commission to treat Freeman Lake/ NOI issued June 2022
- July 2022 – Residents appealed NOI
- January 2023 – Town submitted amended Order of Conditions to treat Varney beach only, residents opposed



Project Background (Continued)

- January 2023– Town withdrew NOI, met with residents and agreed to conduct Comprehensive Lake Management Plan before proceeding with any treatment
- Spring - Summer 2023 DPW/Conservation developed scope for RFP
- Summer 2023 – DPW hand pulled weeds again at Varney beach area to keep beach open
- Fall 2023 – Consultant (TRC) selected as part of RFP process
October 2023 – Project began, first site visit/sample conducted
- Study anticipated to be completed Fall 2024

Project Scope

- Review existing studies and data
 - Previous lake surveys, 1995 Lake Study
- Conduct 6 site visits between Fall 2023 and Fall 2024. During each field visit, TRC will collect water quality data
- Collect wet weather samples to help quantify the influence of “local” watershed stormwater inputs.
- Collect sediment sampling to measure internal loading of phosphorous within Freeman Lake
- Monitor streamflow through continuous water level dataloggers in the Stony Brook diversion and in the outlet stream below the Freeman Lake Dam.

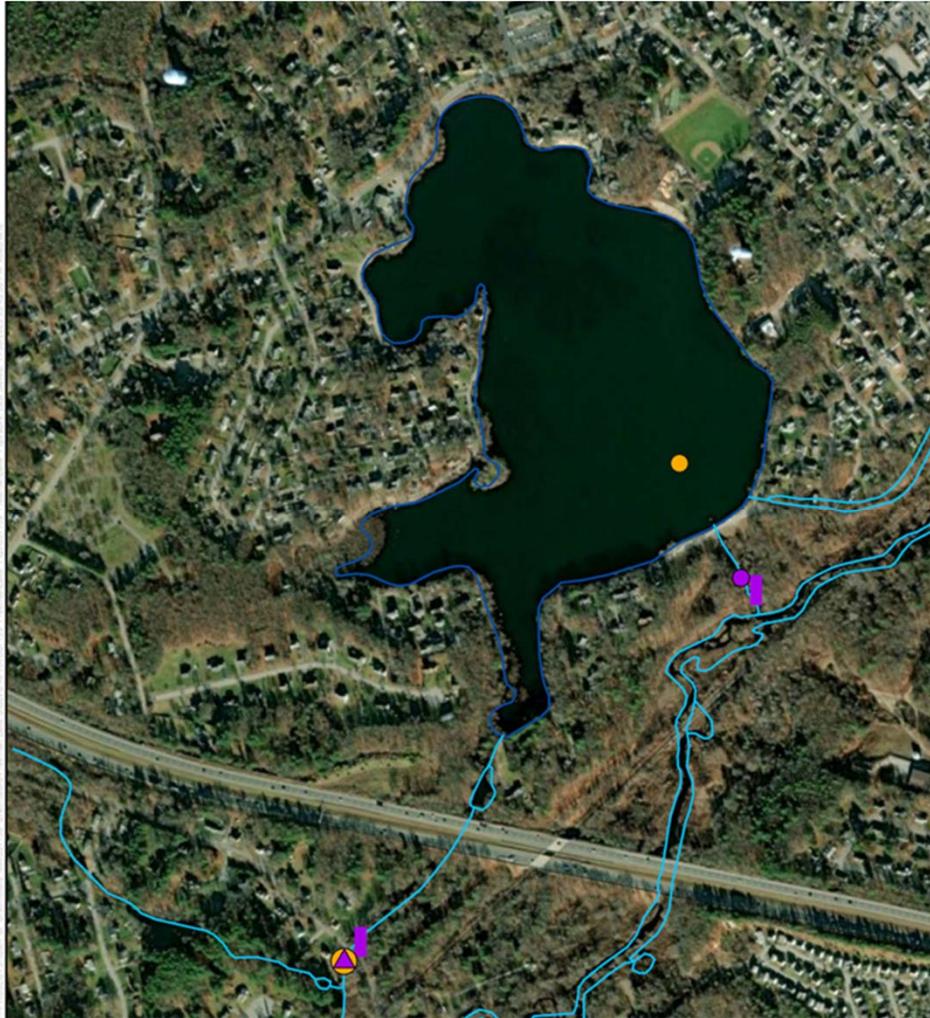
Project Scope

- Complete an assessment of aquatic vegetation in Freeman Lake during the early summer
- Data collected will include vegetative community composition, vegetative cover (percent of bottom) and biovolume (percent of growth in the water column).
- Data collected from the aquatic plant survey will be used to generate maps of the extent of each species in the lake. Additionally, overall plant cover and biovolume will be mapped.

Project Scope

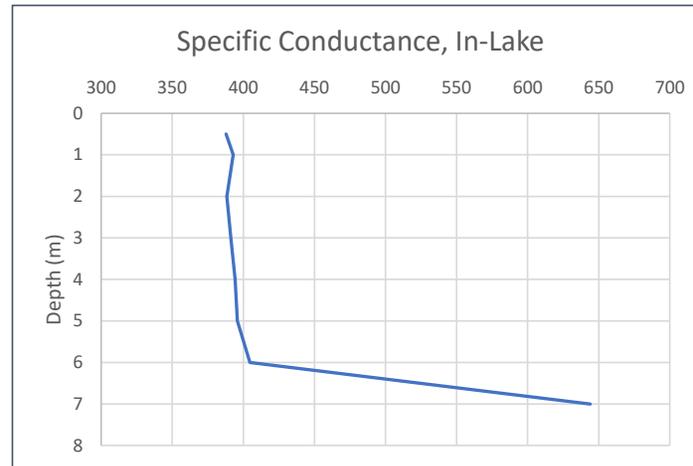
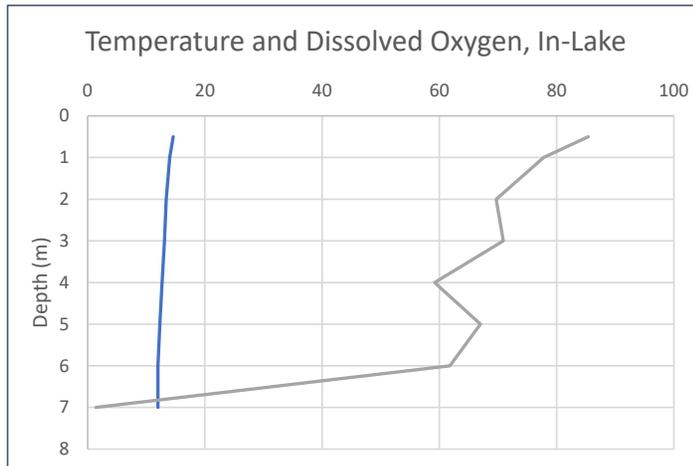
- Update the annual hydrologic and nutrient (phosphorus and nitrogen) budgets originally developed as part of the 1995 Freeman Lake Report
- Provide Diagnostic and Management Assessment Report summarizing findings and recommendations, including estimated costs.

Freeman Lake Water Quality



- STREAMS
- SHORELINE
- DISCHARGE MEASUREMENTS
- WQ SAMPLING
- ▲ WQ AND DISCHARGE
- CONTINUOUS DATA LOGGER

Freeman Lake Water Quality



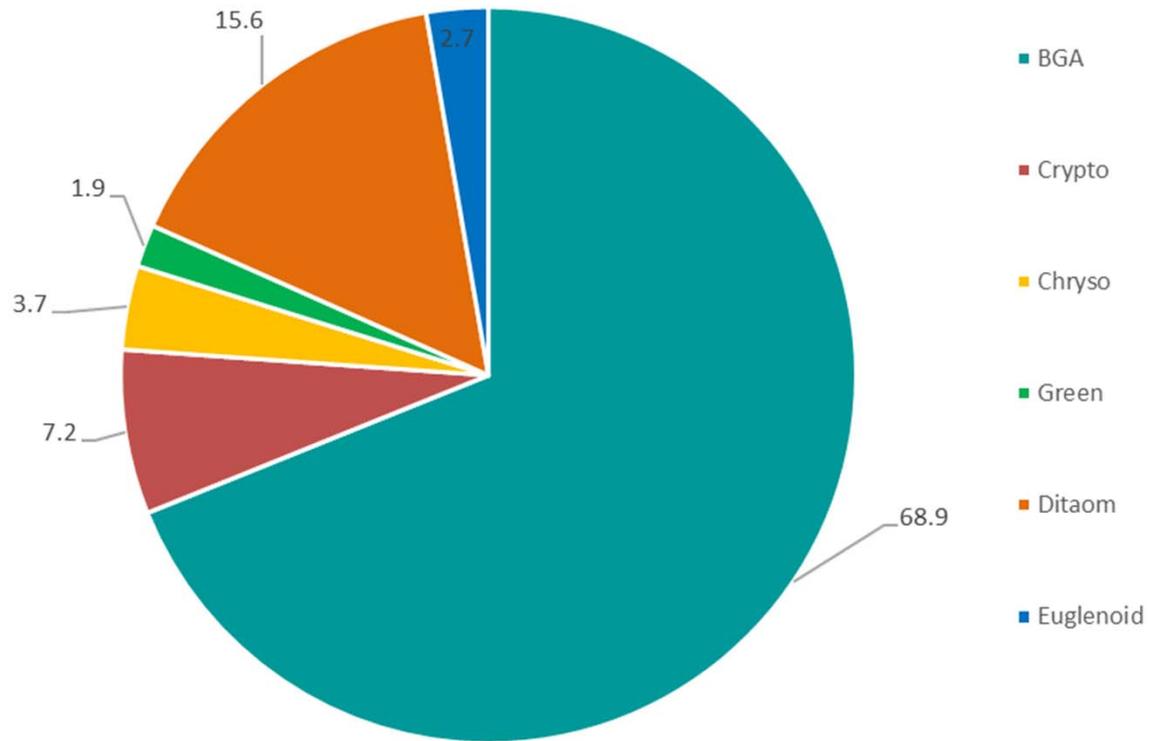
Inlet Stream

Location	Depth (meters)	pH (SU)	Temperature (C°)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm)
Station 2	0.5	7.27	7.92	79.2	7.92	342.6

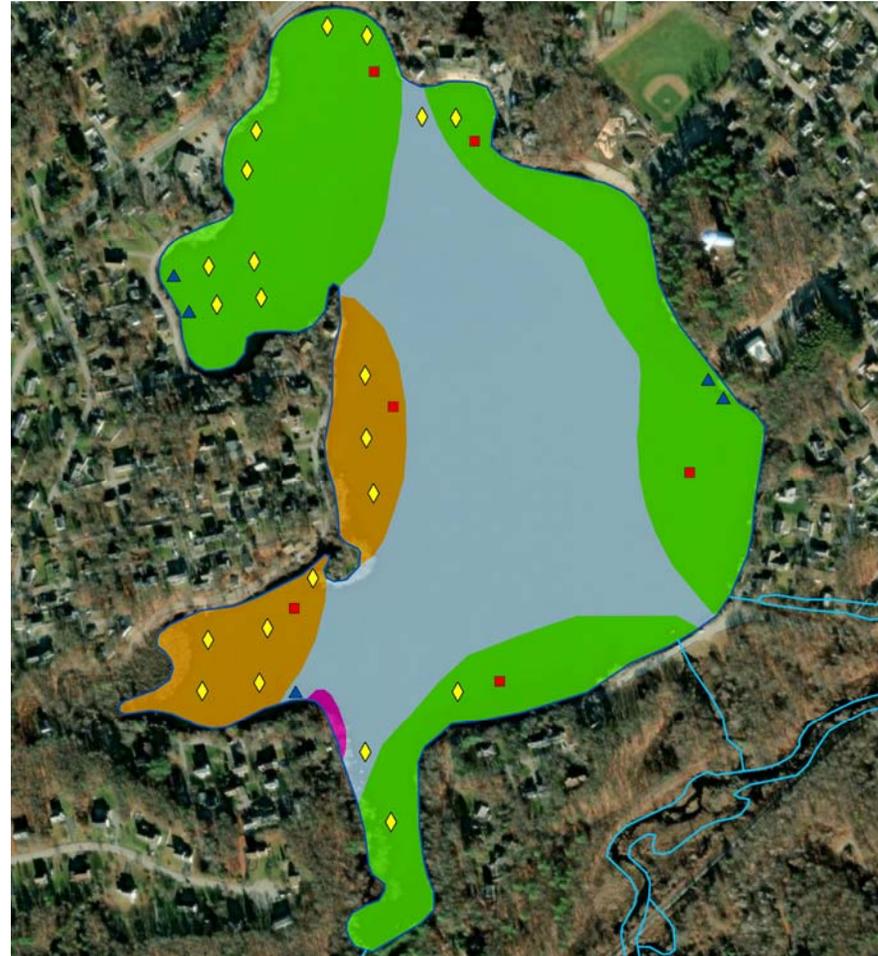
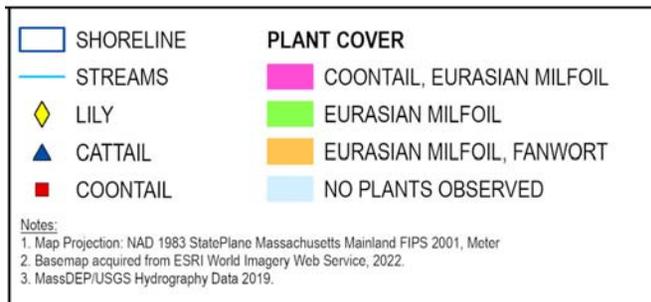


Freeman Lake Water Quality

Freeman Lake Algae 26 October 2023



Freeman Lake Water Quality



Public Input Session

- Goal for this public session – information gathering session
 - How are you a Freeman Lake stakeholder?
 - How do you use Freeman Lake?
 - What are your concerns about or ideas to improve Freeman Lake?
- Rank the following 1-5 (most important to you first)
 1. Aesthetics
 2. Boating/Recreation
 3. Swimming
 4. Fishing
 5. Habitat/Wildlife



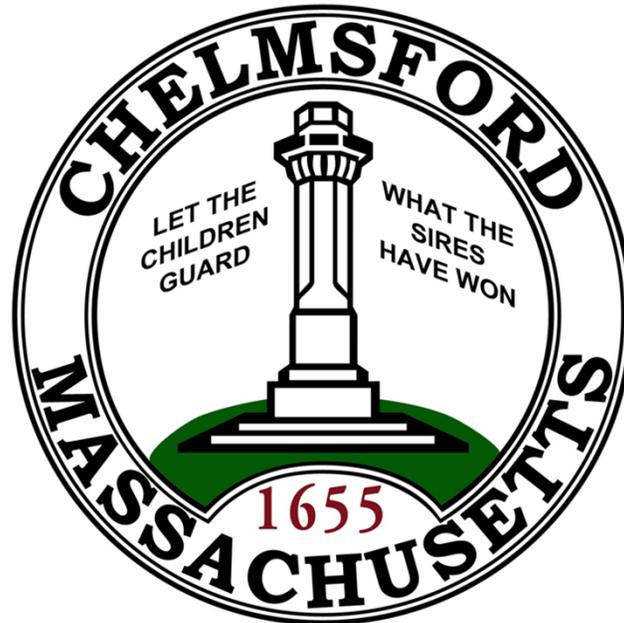
Public Input Session

Online Survey available until 12/31/23:

<https://www.surveymonkey.com/r/8HD838K>

- Over 65 results received to date
- Common responses to date:
 - Many stakeholders live in Lake neighborhood
 - Concerns with water quality/weeds
 - Various users – walking/fishing/boating, etc.
 - Concern with non-resident use of Varney
 - Aesthetics and Habitat/Wildlife trending most important value

THANK YOU



Contact Information

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