



ENVIRONMENTAL SCIENTIST:
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CALL/TEXT WITH ANY QUESTIONS!



FIELD NOTES SUMMARY

Customer: Town of Arlington / Friends of Menotomy Rocks Park (Hills Pond)

Site Location: Arlington, MA

Date: 9/6/22, 12:30 PM

Observations / Notes: On September 6th, Senior Environmental Scientist, James Lacasse, completed a site visit to Hills Pond. The visit consisted of performing a survey and collecting basic water quality data, in addition to collecting an algae sample. Conditions during the visit were cloudy with a steady rain.

Upon arrival, a survey was conducted using visual observation paired with a standard throw-rake, as needed. There appeared to be a small microscopic algae bloom within the water column as the water clarity had decreased from the previous site visit. An algae sample was collected and shipped on ice via FedEx overnight to the SePro Lab for analysis of algae identification and enumeration (as directed by David Morgan, Arlington Conservation Agent). Minimal vegetation was documented (primarily duckweed (native) scattered around the shoreline and in the small ponded area).

Prior to the visit, Friends of Menotomy Rocks Park asked us to check on the Vertex aeration system as one of the diffuser patterns did not appear normal. Upon inspection, it was determined that two diffusers did not appear normal. Each of these diffusers was retrieved from the pond and inspected. As seen in photos 5 & 6 below, these two diffusers were broken, with one plate on each broken off. This is not unusual given the age of the diffusers and the fact that they are plastic, which can get brittle over time. The other two diffusers were working well, including the additional diffuser which was added this Spring. The two broken diffusers were shut down in the cabinet, and the other two diffusers were lowered to allow for even and proper distribution of air. The broken diffusers/lines were dragged to the shoreline near some cattails so that they can be repaired when requested. As discussed when adding the additional diffuser (AquaMaster) earlier this year, we are not a Vertex distributor but can replace the broken diffusers with either AquaMaster or Kasco, and place them in their designated spots. AquaMaster diffusers are \$389 each, or Kasco diffusers are \$321 each, plus \$50 for shipping. We will install for free since we have already brought the lines to the shoreline. Please let us know if you'd like to get this repair going, and we will order the necessary diffusers and/or send over a more formal proposal if required.

The water temperature was consistent with other similar waterbodies we manage in the area, and the

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dissolved oxygen was sufficient to support fish and wildlife. Water clarity was also assessed using a Secchi disk. A Secchi disk is a disk with alternating black and white quadrants. It is lowered into the water of a lake until it can no longer be seen by the observer. This depth of disappearance, called the Secchi depth, is a measure of the transparency of the water. The Secchi reading was 2'8", which illustrates below average water clarity. The water level was still documented as below average for Hills Pond.

This was our last scheduled visit to Hills Pond, however we will be returning the algae sampling results as soon as they are received from the lab. In the event the public health advisory is lifted and the sample documents the need for treatment, we will include an additional visit to specifically treat for algae, at no additional cost; assuming we schedule it when we are in the area.

Please let us know if you have any questions or would like to proceed with an aeration repair/diffuser replacement.

Pond	Surface Temp (°C)	Surface DO (mg/L)
Hills Pond	20.3	6.7

Photos



