



Northeast Aquatic Research



74 Higgins Highway
Mansfield Center, CT 06250
www.northeastaquaticresearch.net
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TO: Seven Hills Lake
FROM: Alejandro Reyes, Aquatic Ecologist, CLM

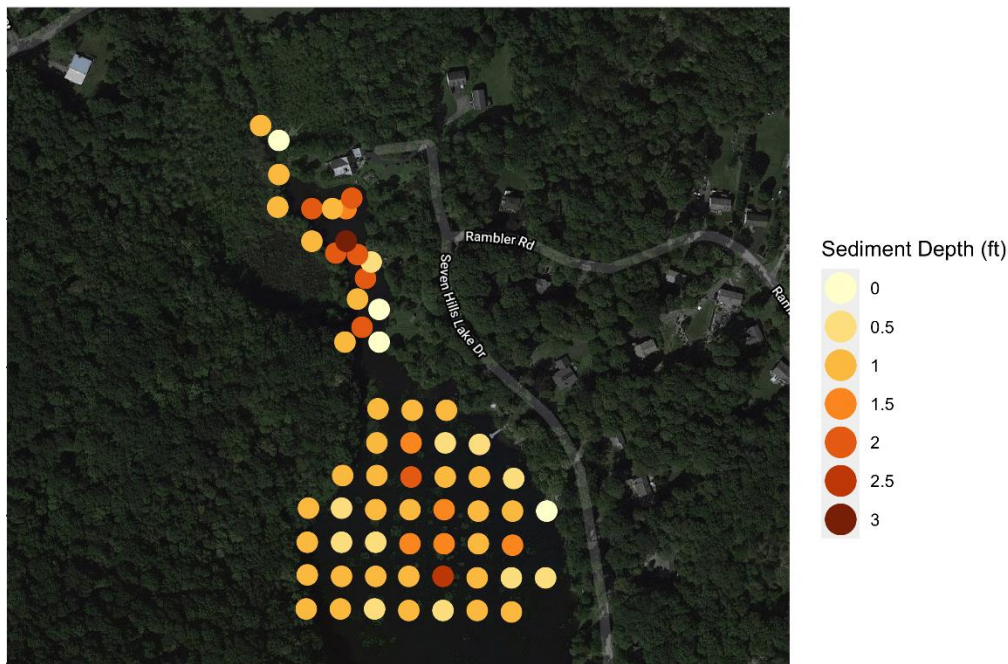
Re: April Update

Sediment Depth

NEAR visited the lake on April 16th to perform a sediment probing study. There has been significant concern about sediment buildup in the northern lake section, specifically where the inflow stream comes in. The sediment sampling was designed to cover the same area that was previously sampled by allied biological. Sampling was done by using a painter's pole to measure sediment depth. The pole was lowered into the water until the sediment was touched. That depth was recorded, then the pole was driven into the sediment until refusal. That depth was recorded as well (termed total depth). Two measurements were made per site.

Sediment depth was calculated using the equation:
$$\text{Sediment depth} = \text{total depth} - \text{water depth}$$

Seven Hills Lake Sediment Depth
Northeast Aquatic Research, LLC



Sediment depth varied across the area from 0.25 feet to 3.25 feet. The thickest sediment was found in the northern cove area, with some sporadic, thicker sediments in the open lake section. There were a lot of stumps and lily rhizomes which we ran into, especially in the open lake section that could have influenced depth readings in that area. Often, the thickest sediment was found in the middle of the channel with thickness decreasing as you move toward the shoreline in either direction.

For the 2021 report, NEAR will further analyze this data in context of potential remediation.

Volunteer Monitoring Training

On Sunday, April 18th NEAR staff trained volunteers on how to sample water quality for the volunteer monitoring program. Volunteers learned how to take a clarity measurement with a view scope and perform a vertical profile using a dissolved oxygen probe. Proper sample collection and storage was discussed as well. During the site visit, NEAR staff documented a few plants of curly leaf pondweed, an invasive species at the beach. With the permission of the seven hills lake stakeholders, this observation was reported to IMAP invasives.

Photo of Curly Leaf Pondweed documented on Seven Hills Lake



Thank you for taking the time to review this update. Please let me know if you have any questions or concerns.

Alejandro Reyes
Aquatic Ecologist and Certified Lake Manager