

## Improving the Health of the Chebacco Lake Watershed and Alewife Brook

Seaside Sustainability has convened an array of stakeholders of Chebacco Lake to begin improvement efforts, starting with Alewife Brook: the Chebacco Lake Watershed Association<sup>1</sup>, the Massachusetts Division of Marine Fisheries<sup>2</sup>, representatives from the conservation commissions of and town governments of Essex and Hamilton, Gordon College, the Manchester Essex Conservation Trust, The Ipswich River Watershed Association, and the Parker-Ipswich-Essex Rivers Restoration Partnership<sup>3</sup>. Beginning in the Spring of 2021, this group will begin efforts to improve the overall health of the



Chebacco Lake watershed and Alewife Brook. The first issue to be addressed will be improving the water flow of Alewife Brook, through the reduction of plant growth. The ongoing dedication and hard work of all members of this coalition will ensure that Chebacco Lake remains a vital herring spawning ground and that the health of the entire watershed will be improved.

The success of the combined efforts of Seaside Sustainability and other stakeholders will rely on public support and engagement. It's vital to harness energy and efforts from volunteers in the watershed communities. Seaside Sustainability is optimistic that with this network of organizational partnerships along with public awareness and participation, the Chebacco Lake watershed will become healthier and more sustainable with a thriving alewife population.

**The Chebacco Lake watershed** is an area in Essex County, MA, encompassing 3,600 acres and is home to 5 ponds and Chebacco Lake. The watershed lies within parts of five towns - Essex, Hamilton, Wenham, Manchester and Beverly. Chebacco Lake is a 209-acre body of water that is fed by eight small brooks and its primary outlet is Alewife Brook. Town drinking water supplies from all five towns are located within the watershed, making the protection of water quality of primary importance.

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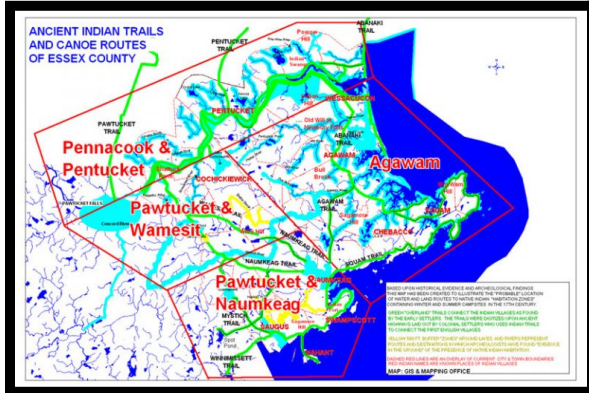
<sup>1</sup> Chebacco Lake Watershed Association

[https://www.facebook.com/ChebaccoLakeWatershedAssociation/?ref=page\\_internal](https://www.facebook.com/ChebaccoLakeWatershedAssociation/?ref=page_internal)

<sup>2</sup> The Massachusetts Division of Marine Fisheries <https://www.mass.gov/orgs/division-of-marine-fisheries>

<sup>3</sup> Parker-Ipswich-Essex Rivers Restoration Partnership <https://pie-rivers.org/>

# History of Chebacco



First Nations of Cape Ann



Ice Harvesting on Chebacco

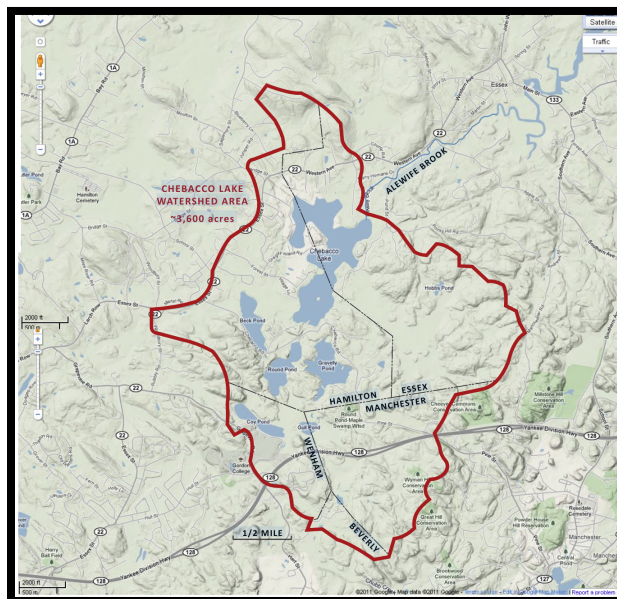


Centennial Grove



First New England flights

**Chebacco** has an interesting history. The Peoples of Agawam known as the Pawtucket inhabited this region prior to and after the European presence. From the eighteenth into the early part of the twentieth centuries the lake was known for its ice harvesting industry and Chebacco ice was shipped worldwide. The first airplane flight in New England took off and landed on the ice of Chebacco in February of 1910 (the pilot's name was Augustus *Herring!*) and the flight is commemorated by a plaque near the Hamilton town beach. At the turn of the 20th century Centennial Grove, located on the lake in Essex, was a popular destination for outings. The train ran from Boston to the Grove where people enjoyed the beach, a dance pavilion, arcades, dining, a race track and boating. More recently the movie *Grown Ups* was filmed at the Grove.





## Alewife Brook



### Alewife spawning run

**The lake** is classified as a Class B water resource by the state of Massachusetts, signifying that it is a designated habitat for the protection of aquatic life<sup>4</sup>. The Alewife Brook leads to the Essex Bay and the North Atlantic Ocean and is a vital path for river herring, specifically alewives, which are characterized as *anadromous* fish because they spend most of their lives in the sea but spawn in freshwater lakes. The passage from the lake to the Essex River is about a mile and is not obstructed by any dams, making it an ideal run for the alewives.<sup>5</sup> However, passage through the brook has become increasingly more challenging as a result of low water levels, increased siltation, vegetation growing in the channel, and the presence of beaver activity. This has led in part to a rapid decrease in the alewife population over the past few years, disrupting the ecosystem in the Chebacco Lake watershed. The alewife count in the brook varies from year to year but we are in the midst of a precipitous decline. The Mass Division of Marine Fisheries annual spring count in 2016 was in excess of 43,000 while the 2020 count was 4,800. There are several factors that play into this decline and passage through the brook is one of the most significant. The lake has also experienced excess nutrient buildup, harmful algal blooms and shoreline erosion. These conditions are hazardous to aquatic life as well as to residents of the watershed.



**Alewife**



**Alewife Brook**

<sup>4</sup> The Commonwealth of Massachusetts. *314 CMR 4: Massachusetts Surface Water Quality Standards* December 6, 2013. Mass.gov.

<https://www.mass.gov/doc/314-cmr-4-massachusetts-surface-water-quality-standards/download>

<sup>5</sup>The Massachusetts Division of Marine Fisheries. 2017. *A Guide To Viewing River Herring in Coastal Massachusetts*. Mass.gov.

<https://www.mass.gov/files/2017-07/river-herring-viewing-guide.pdf><https://www.mass.gov/files/2017-07/river-herring-viewing-guide.pdf>