



BRISTOL MILLS

Dam & Fish Ladder

Improving the ecological diversity of the Pemaquid Watershed by allowing this essential food source (for birds and other fish) to migrate to their spawning areas in Biscay Pond, Duck Puddle Pond, and Lake Pemaquid.



Bristol Mills Fish Ladder Restoration



ALEWIVES AND THE FISH LADDER

Alewives are **anadromous fish** which means that they live most of their lives in saltwater but return to fresh water to spawn. Though alewife season is somewhat weather dependent, they typically enter the Pemaquid River in late April and arrive at the **Bristol Mills fish ladder** in early May. Once in upstream lakes such as Biscay Pond and Pemaquid Lake, each female produces **60,000-100,000 eggs** which typically hatch in 3-6 days.

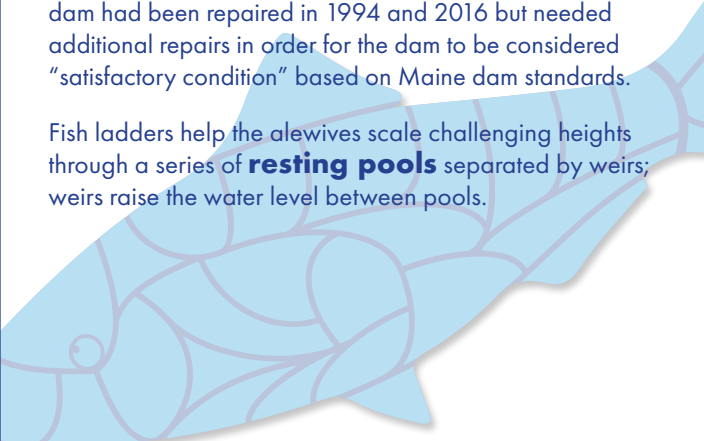
The young alewives head back toward the sea anytime between July and November in very large schools. Juvenile alewives spend three to four years at sea, before maturing and **returning to their birthplace to spawn**. In addition to their importance to the lobstering industry, alewives are important to the lake, river and coastal marine environments. They are an **important prey** for osprey, bald eagles, great blue heron, loons and larger fish all of whom appear in greater numbers **when alewives successfully migrate** into our lakes and streams.



SAVE THE DAM A COMMUNITY UNITED

In 2018, **Bristol residents voted**, by an overwhelming **90%** to 10% margin, to make **repairs** to the dam and **replace** the 1974 fish ladder. The 1914 dam had been repaired in 1994 and 2016 but needed additional repairs in order for the dam to be considered “satisfactory condition” based on Maine dam standards.

Fish ladders help the alewives scale challenging heights through a series of **resting pools** separated by weirs; weirs raise the water level between pools.



HISTORY

BRISTOL MILLS DAM & FISH LADDER

The original Bristol Mills dam was constructed in **1914** as a source for hydro power in the local community. While hydro power is no longer generated, the dam creates a beloved **swimming hole**, regulates the water level of a chain of lakes above and provides water for the local **fire department**.

In 1974, a **fishway** was constructed to allow **passage** for the alewife and other species to the lakes above in order to spawn. The alewife is an **essential bait fish** for the lobstering and other fishing industries.

Since volunteers began counting in 2013, the number of alewives able to make it to the top of the ladder range from **14,000** to approximately **200,000** fish. The Maine Department of Marine Resources suggests that the lake system above the dam could support over 600,000 fish.

1974 REPAIRS

A BAND-AID

Locals recall the construction of the original fish ladder, cobbled together by **granite slabs** and **wooden boards**, some of which have been uncovered during the current rebuild. The “replacement” fish ladder, constructed in 1974, was in need of **desperate repair** and/or replacement and did not support the number of alewives wishing to migrate into our watershed. Additionally, it worked poorly in attracting fish to its entrance and was not effective in **adjusting water flow** to a level that allowed fish to successfully navigate the incline of almost 12 linear feet from the bottom of the dam to the top.

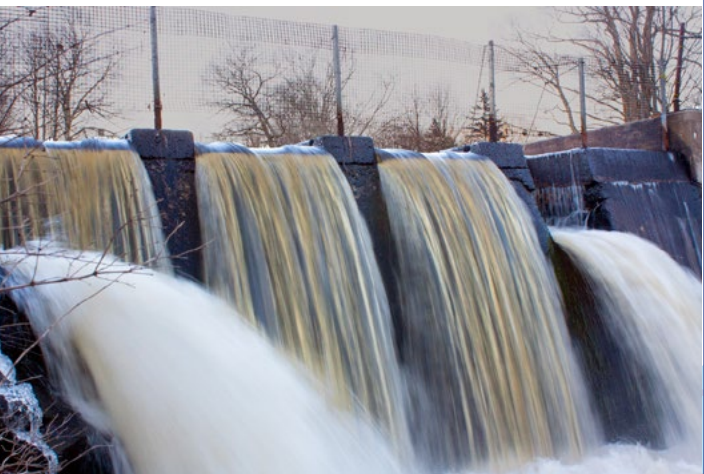
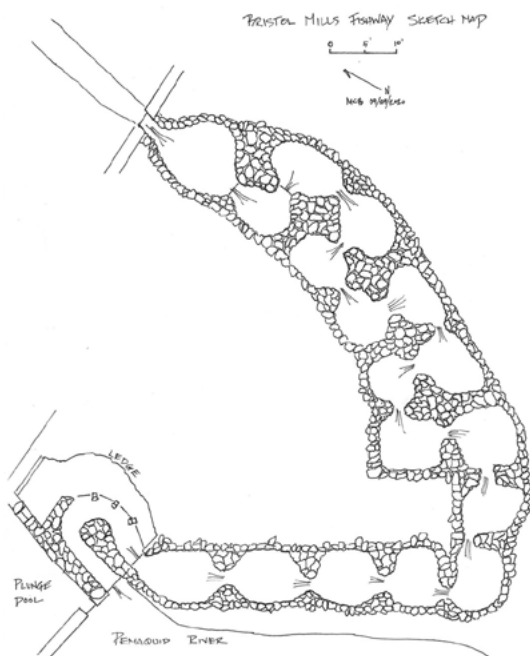
The **new ladder** will direct fish to its entrance, allow for **resting** during the climb, and the **natural rock pool** linings will mimic a natural setting.

PHASE ONE

The fish ladder will help the alewives scale a height of more than 12 feet through a series of **resting pools** separated by weirs; weirs raise the water level by approximately **9 inches** between pools.

PHASE TWO

Phase two will enhance **walkways** to and around the fish ladder, allow for educational **signage and experiences**, and completion of **stonework** to the top and exterior of the concrete walls.



FINANCIAL SUPPORT FUNDRAISING & DONATIONS

Fundraising for the fish ladder will be an on-going process and no gift is too small. Gifts of cash and appreciated securities are genuinely appreciated. Please ask your financial advisor regarding tax implications of gifts.

With thanks to the Town of Bristol's support, and that of a private citizen's gift of \$200,000, we have a significant jump start in financial support for the construction of the new fish ladder (as of September 2020).

Little Fish. Big Role.

DONATE

Bristol Town Office

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Bristol, Maine 04539

bristolmaine.org

Please be certain to write Fish Ladder in the memo line of your check. You are also welcome to visit the town office in person to make your contribution.

CONTACT US

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