The Snows Brook Culvert project on Route 15 in Sedgwick

An expensive replacement of a highway culvert.
Many partners, big dollars, community support, wide range of benefits
And part of a watershed-wide effort
Frost Pond and Snows Brook

Photo on the left, shows what is there now

When redone, it will resemble the below
Design Specifications

- **Natural Stream Bottom:**
  - Infill substrate gradation developed from detailed analysis of stream substrate (pebble counts and grab samples)
  - Large boulder weirs & vanes placed to ensure bed stability in higher flows
  - Full invert (closed concrete bottom) specified to meet ME DOT requirements for scour protection

- **New Crossing alignment**
  - Skewed to accommodate head cutting potential and re-alignment of channel planform to allow the aggraded sediments upstream of the existing crossing to re-mobilize
  - Angled away from tributary confluence directly upstream of the crossing to prevent sedimentation from confluence impacting inlet

- **New Crossing is flood resilient**
  - HEC-RAS Modeling of the new crossing indicates it will pass the 100 year flood event with more than 20% freeboard capacity
  - The existing crossing will reach capacity at a 25 year event
Construction hoped for in 2021

- Six plus years total time need
- $1.2 + Million in cost

But...
- Grand finale to a watershed wide effort on multiple miles of stream and river habitat, and hundreds of acres
- Great community awareness and partner building
- More fundable than feared
A small watershed of statewide and national significance
The Three Town Alewife Committee

The Select Boards of Penobscot, Brooksville and Sedgwick

Multiple landowners & water rights holders

Stonington’s Economic Development Director

VHB Engineering

Many volunteers!

MANY PARTNERS
And, with many co-benefits, many funders:

- National Fish and Wildlife Foundation
- NOAA
- The Nature Conservancy
- Trustees of Maine’s Natural Resources
- MDOT MPI Program (pending)
- Private foundations and donors
Creativity in identifying benefits and co-benefits is key.
1. Conserve Maine’s Coast to support both ecological health and the well-being of coastal communities

2. Create and support a wide range of opportunities for people to connect with the land

3. Provide leadership for a strong land trust community throughout Maine

4. Advance conservation interests statewide through collaboration and advocacy

5. Ensure outstanding organizational performance
**GOAL:** PROTECT WILDLIFE HABITAT, ENHANCE THE CONNECTIVITY AND RESILIENCE OF NATURAL SYSTEMS AND WORK TO PROMOTE PUBLIC ENJOYMENT OF NATURAL PLACES AND SIGNIFICANT SCENIC RESOURCES WITHIN THE BAGADUCE WATERSHED.

**COASTAL AND RIPARIAN HABITAT**
- **Objective:** Protect intertidal and riparian habitats and adjacent uplands
- **Objective:** Preserve natural landscape features around priority marsh areas

**AQUATIC HABITAT & CONNECTIVITY**
- **Objective:** Work with partner to address barrier to identify and remediate barriers to fish passage

**COMMUNITY ENGAGEMENT & VISITOR EXPERIENCE**
- **Objective:** Provide and enhance opportunities for public access to the waters and for shoreline trails.
• Aquatic connectivity restoration for an entire subwatershed, within larger Watershed-wide efforts
• Lies within Penobscot River Watershed
• Habitat restored for eight species plus
• Alewife only an indicator – improve mammal, bird and fish habitat and add to the food chain in streams, on land and offshore. Groundfish and more.
• Single blockage for entire system of intact habitat
• Transportation safety
• Emergency services continuity
• Economic benefits: project cost savings through partnering, lobster traffic continuity, fishery health, bait, community infrastructure connectivity
• Community awareness and involvement
NEWS FEATURE

PENOBSCOT
Originally published in Castine Patriot, June 14, 2018 and The Weekly Packet, June 14, 2018

Alewife runs double from last year
New fishways bring big numbers

by Anne Berleant

A years-long effort to bring back the alewives in local streams and ponds found a large measure of success in 2018, with some fish runs doubling the number of alewives swimming from sea into their spawning waters.

A celebration at Pierce Pond on a windy, sun-filled June 2 brought the partnering communities together, along with people just interested in what all the fuss was about. Counting demonstrations and fishway tours were also scheduled at Parker Pond and Walker Pond later in the afternoon.

“I’m fantastic to see the community support,” said Ben Matthews, a waterman with The Nature Conservancy, one of the major funders of the fishway project.

New stone weir and ladder fishways were constructed at Pierce and Wight Funded by the Maine Department of Marine Resources and Gulf of Maine Surry.

Sedgwick students schooled in alewives

SEDGWICK—What is special about alewives? Sedgwick students learned about the lives and past and current uses of alewives for Clona Ulbrich, Maine Coast Heritage Trust Senior Project Manager.

BY ANNE BERLEANT

Restoring Bagaduce Alewives 2nd Annual Celebration
Relevance to Land Trust work

• Combining land conservation with aquatic connectivity is impactful

• Land protection and Stewardship skillsets transfer nicely and fill needs among partners. Landowner relations, negotiations, understanding of land and water rights, Legal documents, obtaining permitting, hiring contractors, community engagement

• Work on fish habitat resonates with communities and inspires action

• Identifying multiple co benefits helps find partners and funding and makes these doable

• Tangible community member impact and involvement