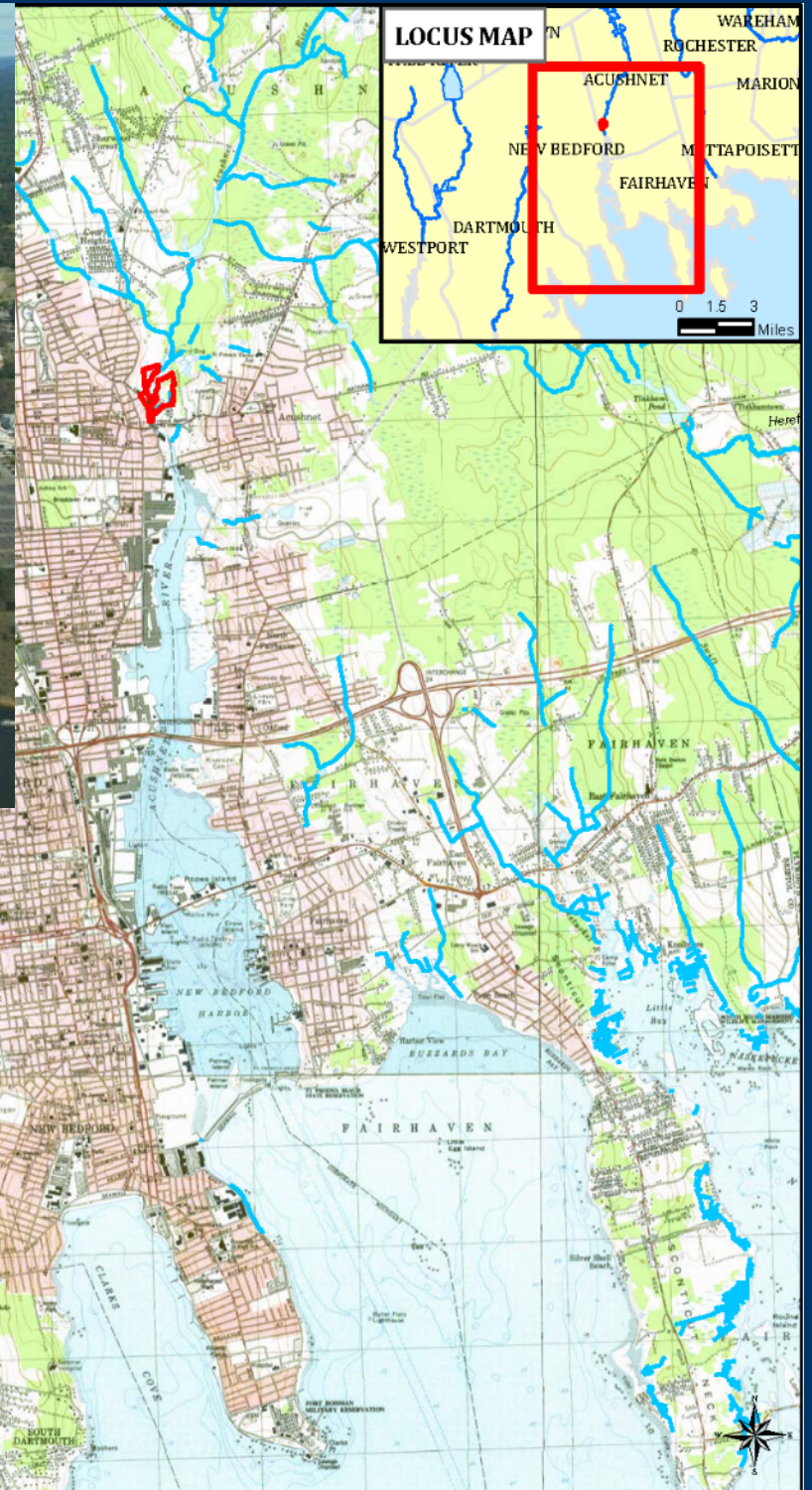


Acushnet Sawmill Ecological Restoration Project



**Sara N. da Silva Quintal, Restoration Ecologist
Buzzards Bay Coalition
February 27, 2014**

Acushnet
Sawmill



Acushnet River

Buzzards Bay Watershed



Acushnet River and New Bedford Harbor: Centuries of Impacts

- Dams (1738 – 1st dam at head of river)
- Filling of Wetlands (1800's – 1900's)
- Industry (whaling, mills, metalwork)
- Sewage
- Industrial Waste (metals, PCBs)
 - New Bedford Harbor declared a Superfund site in 1982 for PCB's
- On-going PCB cleanup
- Combined Sewer Overflows
- Stormwater Runoff



- | | | | | |
|---|--|---|---|---|
|  | Do NOT eat shellfish No coma mariscos Não coma mariscos |  | Do NOT eat fish No coma pescado Não coma peixe |  |
|  | Do NOT eat bottom feeding fish: No coma pescado de fundo: Não coma peixe de fundo: | Do NOT eat lobster No coma langosta Não coma lagosta | | |
| <ul style="list-style-type: none"> • flounder • linguado • solha • scup • salgo • sargo | <ul style="list-style-type: none"> • tautog • butiga • bodião da ostra • eel • anguila • anguila | | | |



RESTORING RIVER and BAY HEALTH

~

Acushnet River Reserve

Protect undeveloped land along the river

Create opportunities for restoration (key parcels)

Restore ecological functions and water quality

Engage the public along the way...

Acushnet River Trail

Collaborative to connect open space along the River

Lower Acushnet River



Undergoing Restoration

...restoring natural filters and links to the Bay

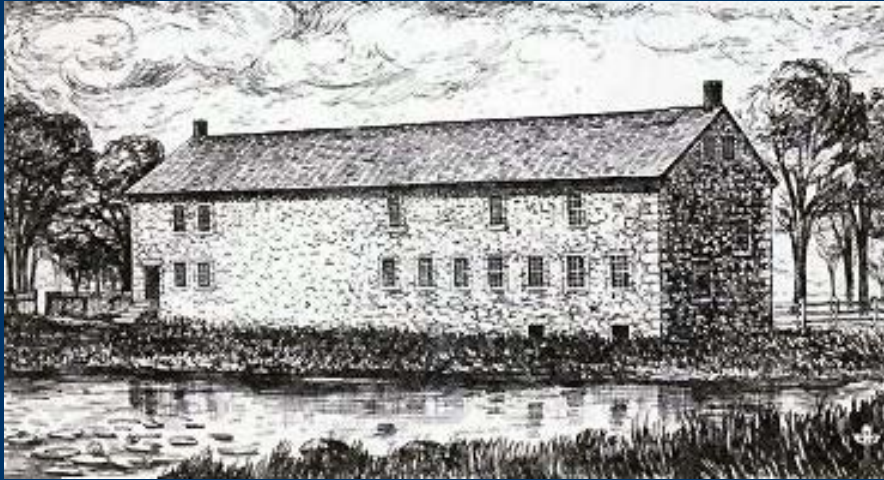
Marsh
Island

Acushnet
Sawmill

LaPalme
Farm



History of the Acushnet Sawmill Property



- **1738:** 1st dam built across the river
- **1700's:** Sawmill and grist mill
- **1800's:** Wool-carding mill, Acushnet Paper Mill & Cotton Factory
- **1886 – late 1980's:** Acushnet Saw Mills Co.
- **Light industrial through 2011**
(e.g., Hardware store, Roofing company)

Previous owners include

- Stephen Taber
- Edward Wing
- William Rotch, Jr.
- Charles W. Morgan
- Jonathan P. Lund
- Hawes Family (1867 – 2007)





Restoration of the Former Acushnet Sawmill

- Purchased by Buzzards Bay Coalition in Spring 2007
- 2007-early 2008: Fish passage project led by NOAA



April 2007

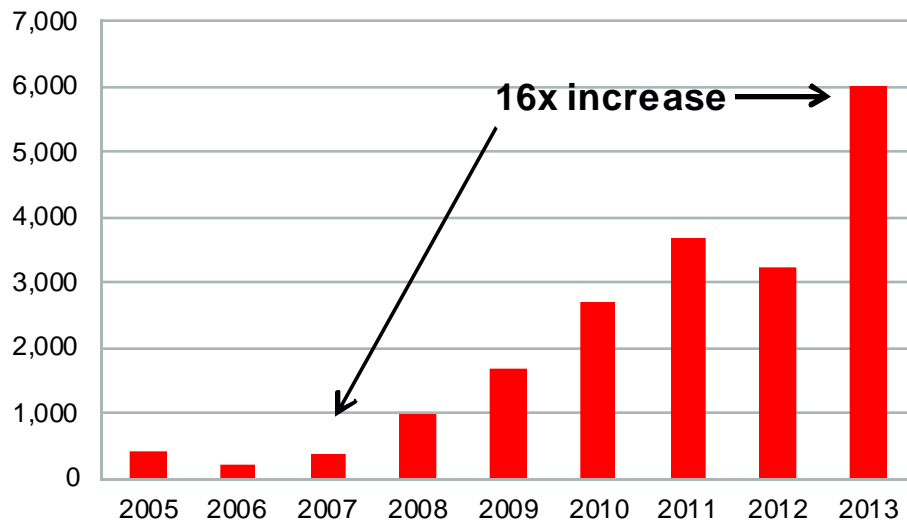


- Natural rock ramp fishway installed
- Herring numbers continue to increase:

2007: 381 fish
2013: 6,033 fish



Acushnet River Herring Returns





Emergent Marsh



Field Stone Wall



Upland Meadow



Stone Amphitheater



Educational Display and Site for Future Visitor Center



Shoreline Stabilization



Stabilized Aggregate Multi-Use Path



Timber Boardwalk



Timber Overlook



Canoe Launch and Fishing Access



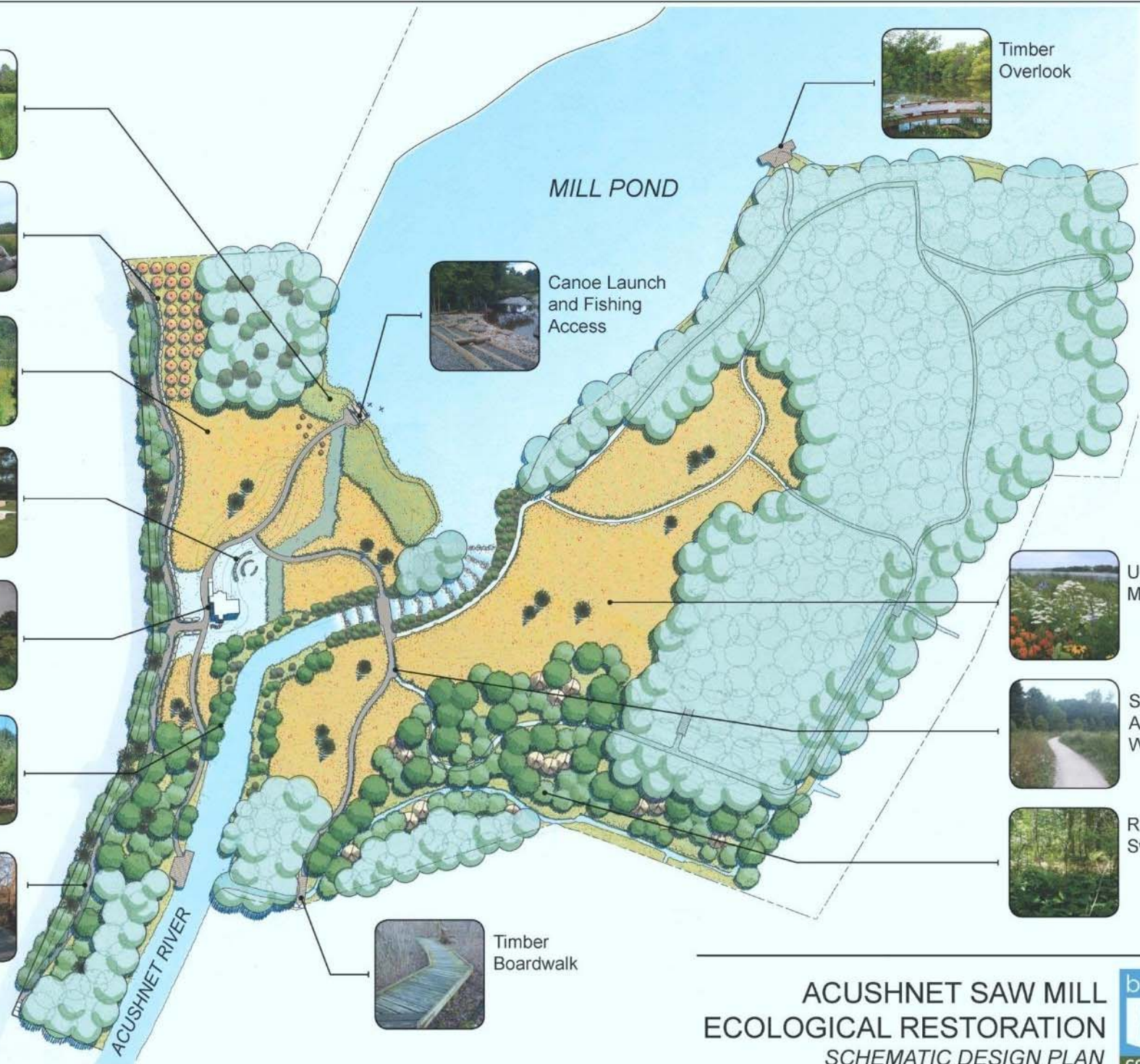
Upland Meadow



Stabilized Aggregate Walking Path

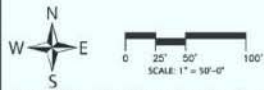


Red Maple Swamp



MILL POND

ACUSHNET RIVER



Prepared by: The Bioengineering Group, Inc.

ACUSHNET SAW MILL
ECOLOGICAL RESTORATION
SCHEMATIC DESIGN PLAN





ACUSHNET SAW MILL: EXISTING VIEW FROM MILL ROAD



ACUSHNET SAW MILL ENTRY: AFTER



ACUSHNET RIVER STREAMBANK: EXISTING CONDITIONS

Funding:

- New Bedford Harbor Trustee Council (primarily)

Design Team:

- EA Engineering
- Bioengineering Group

Permitting (2013)

- MA Historical Commission
- MEPA – Expanded Environmental Notification Form
- WPA - Order of Conditions
- Chap. 401 Water Quality Certificate
- Chap. 91 Waterways License
- US Army Corps 404 Permit



ACUSHNET RIVER STREAMBANK RESTORATION: AFTER 3 YEARS

Demolition:

- industrial buildings
- pavement
- Concrete

Demo Partner:

City of New Bedford's
Department of Public
Infrastructure



Salvage:

- small office building
- granite blocks
- lumber

Building Move



Building Move



Building Move





VISITOR CENTER- Community Service Learning Project

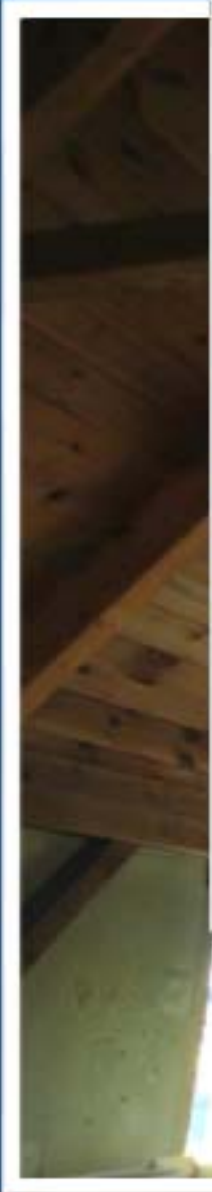
- Architectural Drafting
- Carpentry
- Electrical
- Plumbing

**Old Colony Regional
Vocational Technical H.S.**

**Greater New Bedford
Vocational Technical H.S.**







JANUARY 2014



Wetland Restoration Underway

- river bank restoration
- wetland expansion
- trails and overlooks

Construction Contractor:

- SumCo Eco-Contracting

**Time of Year Restriction
March 1 – June 30**

JANUARY 2014



FEBRUARY 2014



Wetland Restoration Underway

- river bank restoration
- wetland expansion
- trails and overlooks

DECEMBER 2013



Wetland Restoration Underway

- river bank restoration
- wetland expansion
- trails and overlooks

DECEMBER 2013



FEBRUARY 2014



NOVEMBER 2013



FEBRUARY 2014



NOVEMBER 2013



FEBRUARY 2014





FEBRUARY 2014





FEBRUARY 2014



FEBRUARY 2014



**North Overlook:
Installation of Helical Piles**



Sourcing lumber on-site (*selective clearing of invasive trees*)

- Milled by Gurney's Sawmill, E. Freetown



Sourcing lumber on-site (*selective clearing of invasive trees*)

- Milled by Gurney's Sawmill, E. Freetown



Sourcing lumber on-site (*selective clearing of invasive trees*)

- Milled by Gurney's Sawmill, E. Freetown



- Boardwalks
- Canoe Launch Steps

Project Partners

- **New Bedford Harbor Trustee Council**
- **NOAA Restoration Center**
- **City of New Bedford**
Department of Public Infrastructure
- **Town of Acushnet**
- **Old Colony Regional Voc. Tech. H.S.**
- **Greater New Bedford Voc. Tech. H.S.**
- **MA Department of Marine Fisheries**
- **MA Department of Conservation
& Recreation**
- **Buzzards Bay Garden Club**
- **Gurney's Sawmill**





And many volunteers!



Grand Opening in Summer 2014!



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