

Fish Run Improvements at the Stony Brook Mill Site



Project Design Partners



Cape Cod
Conservation
District 



Project purpose: Herring, Alewife, National Registry of Historic Places

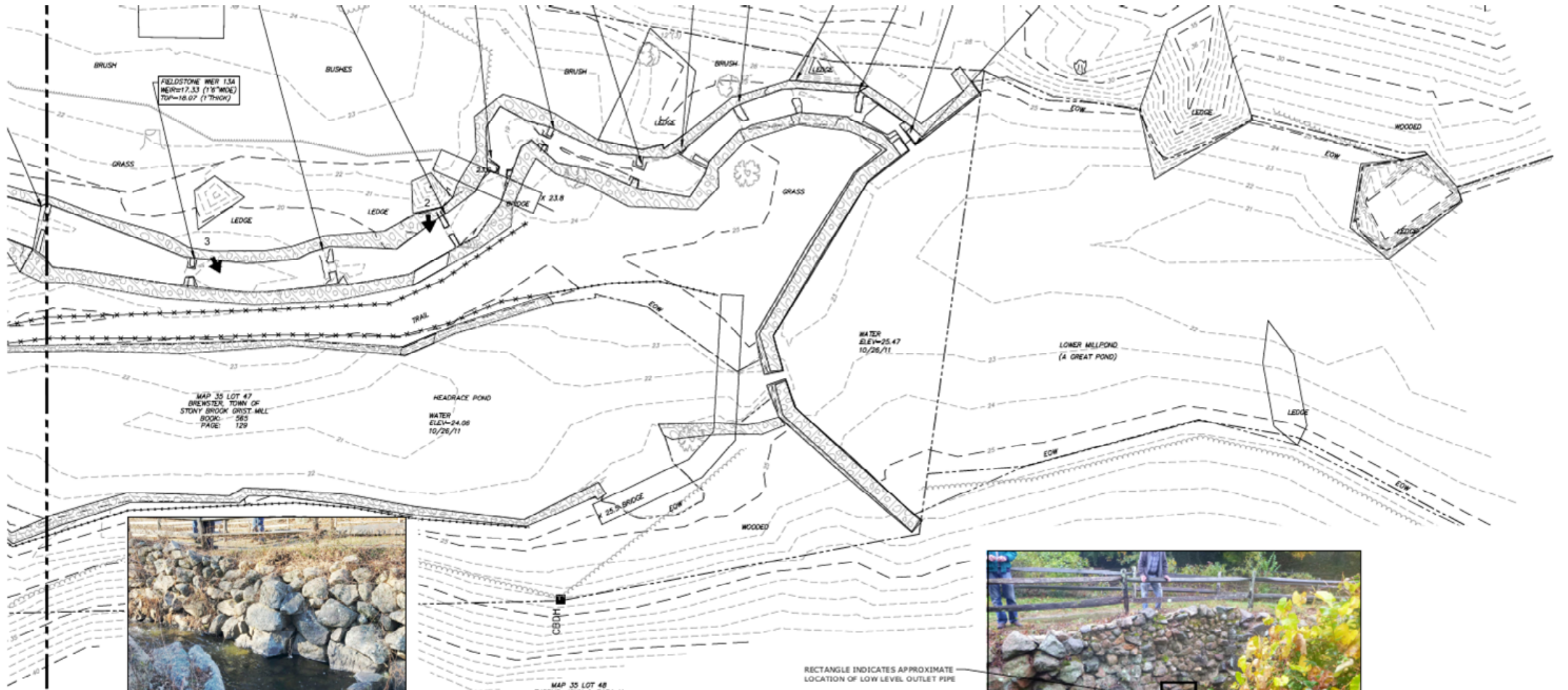
ELECTRONIC FISH COUNTER	
Last 7 Days	Since 3/26/22
117	117
updated: 3/27	
"When the shadbush blooms the herring run."	











FIELDSTONE WIER 1.34
 HEIGHT=17.33 (1'8" WIDE)
 TOP=18.07 (1" THICK)

MAP 35 LOT 47
 BREWSTER TOWN OF
 STONY BROOK DIST. MILL
 BOOK: 583
 PAGE: 129

HEADRACE POND
 WATER
 ELEV=24.06
 10/26/11

WATER
 ELEV=25.47
 10/26/11

LOWER MILLPOND
 (A GREAT POND)

MAP 35 LOT 48
 THORNE JOHN & SARA M
 BOOK: 13065
 PAGE: 240

RECTANGLE INDICATES APPROXIMATE
 LOCATION OF LOW LEVEL OUTLET PIPE



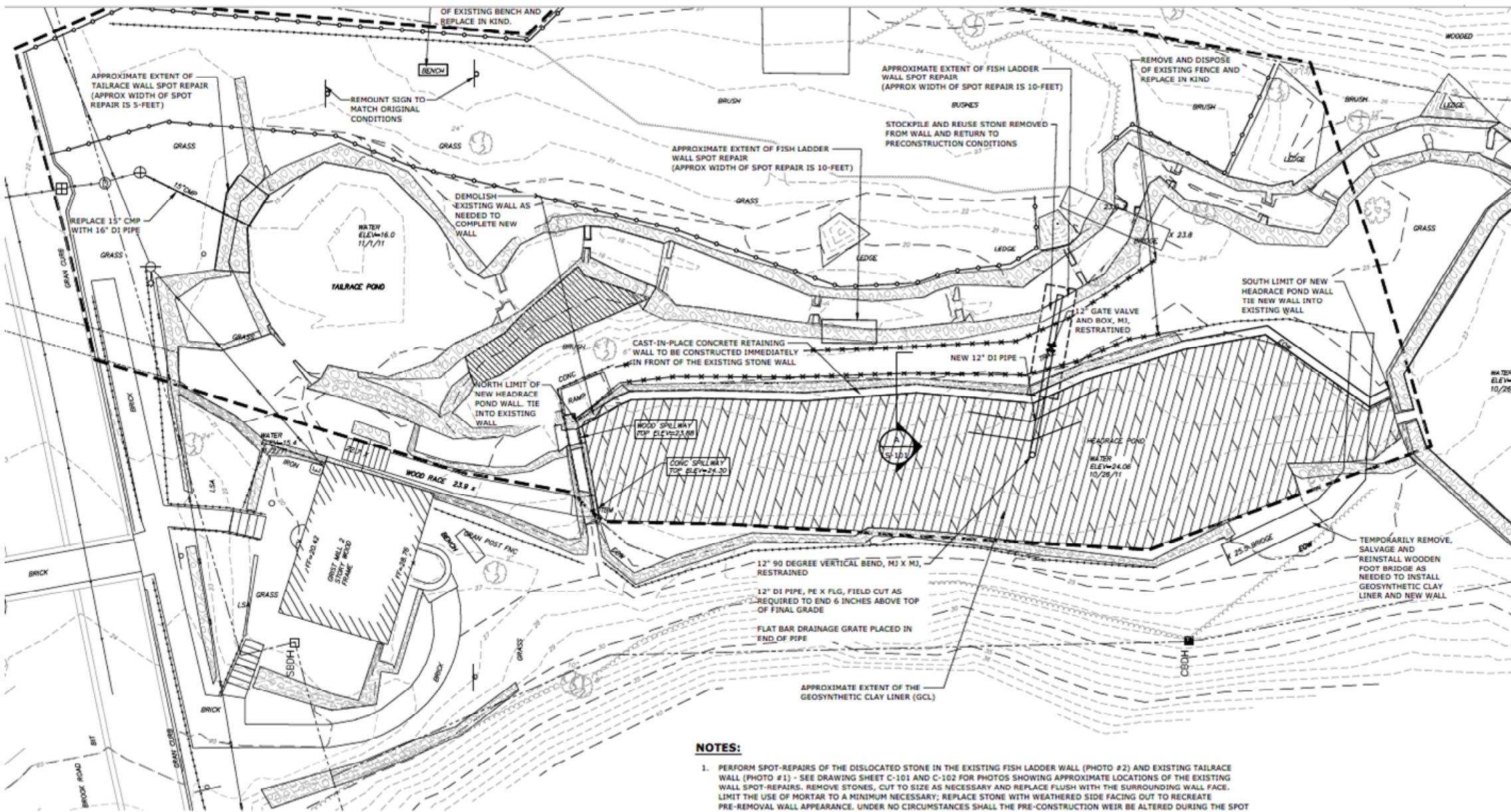
PHOTO 3



PHOTO 2

LEGEND:
 2 → PHOTO LOCATION





NOTES:

1. PERFORM SPOT-REPAIRS OF THE DISLOCATED STONE IN THE EXISTING FISH LADDER WALL (PHOTO #2) AND EXISTING TAILRACE WALL (PHOTO #1) - SEE DRAWING SHEET C-101 AND C-102 FOR PHOTOS SHOWING APPROXIMATE LOCATIONS OF THE EXISTING WALL SPOT-REPAIRS. REMOVE STONES, CUT TO SIZE AS NECESSARY AND REPLACE FLUSH WITH THE SURROUNDING WALL FACE. LIMIT THE USE OF MORTAR TO A MINIMUM NECESSARY; REPLACE STONE WITH WEATHERED SIDE FACING OUT TO RECREATE PRE-REMOVAL WALL APPEARANCE. UNDER NO CIRCUMSTANCES SHALL THE PRE-CONSTRUCTION WEIR BE ALTERED DURING THE SPOT REPAIRS.

Fish Run Improvements north of road



Existing conditions and weirs.



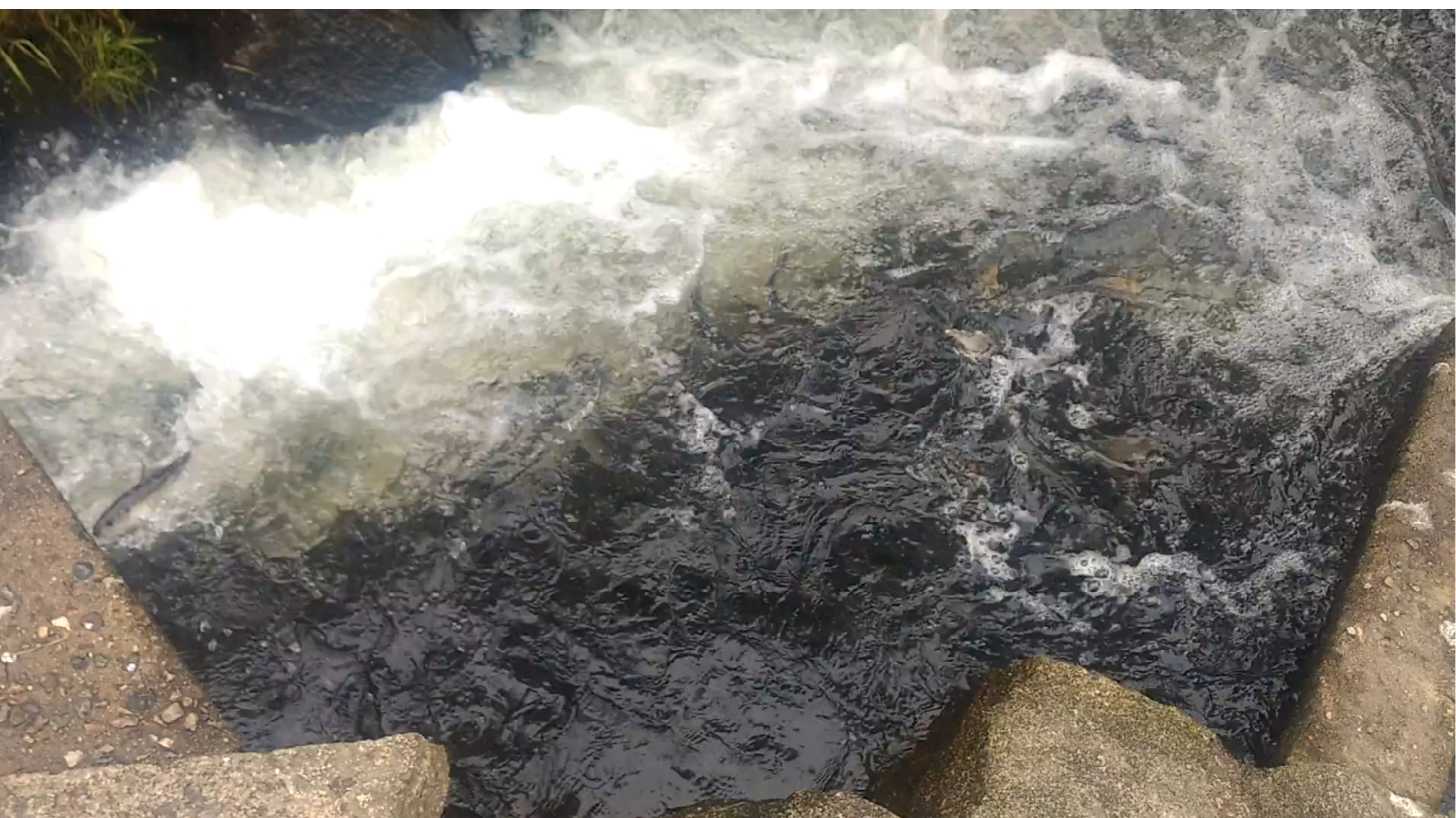




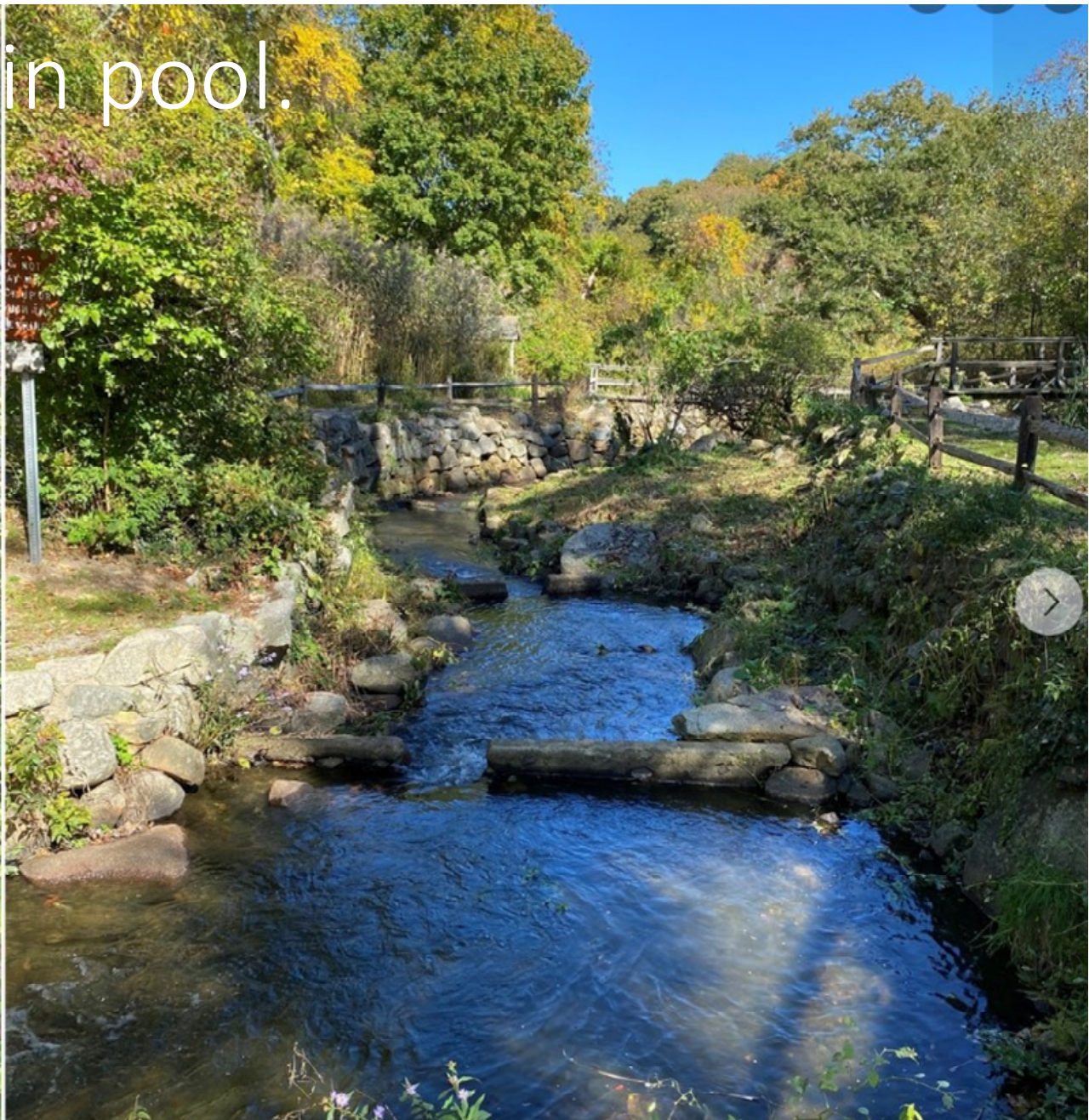
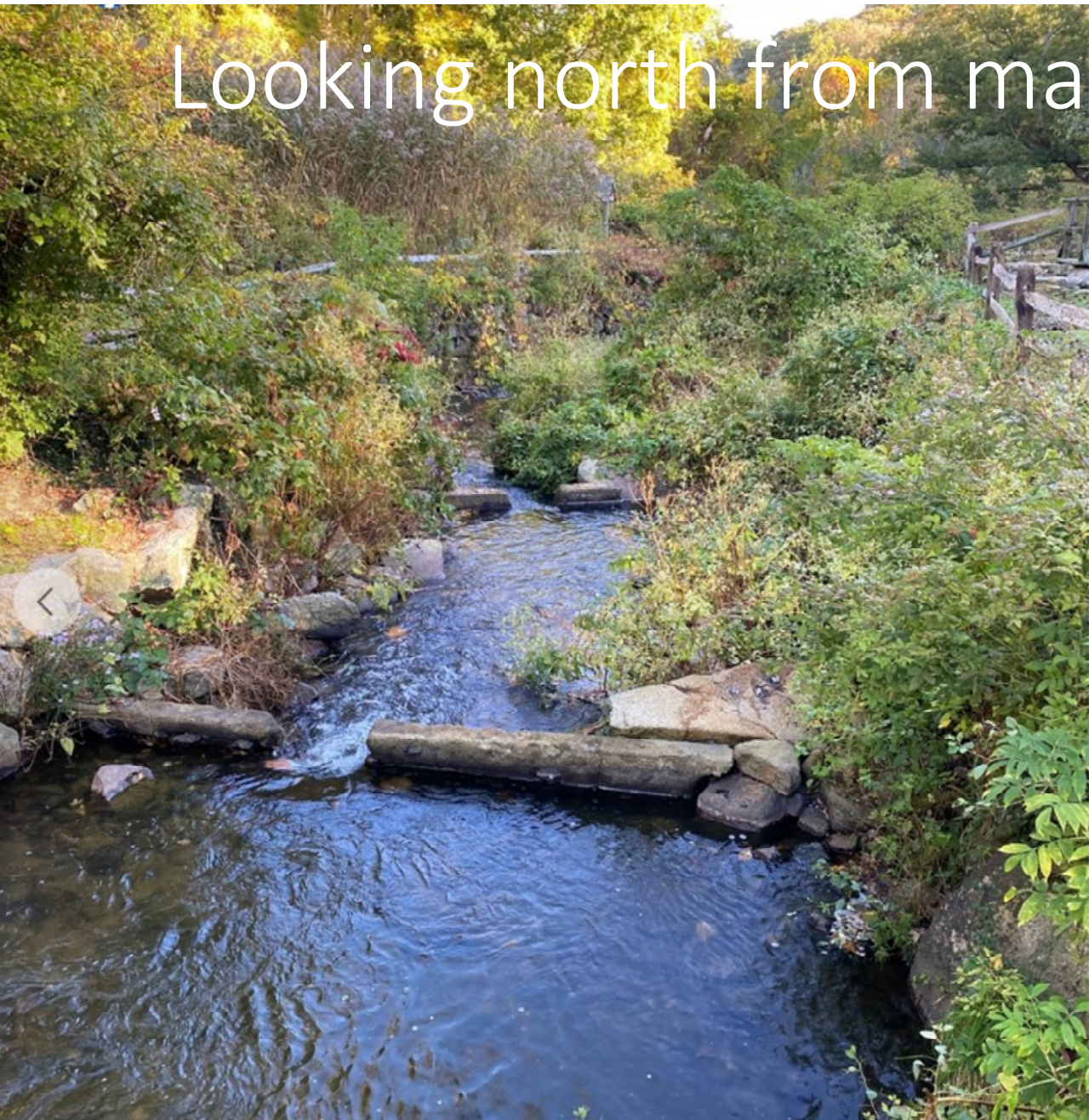








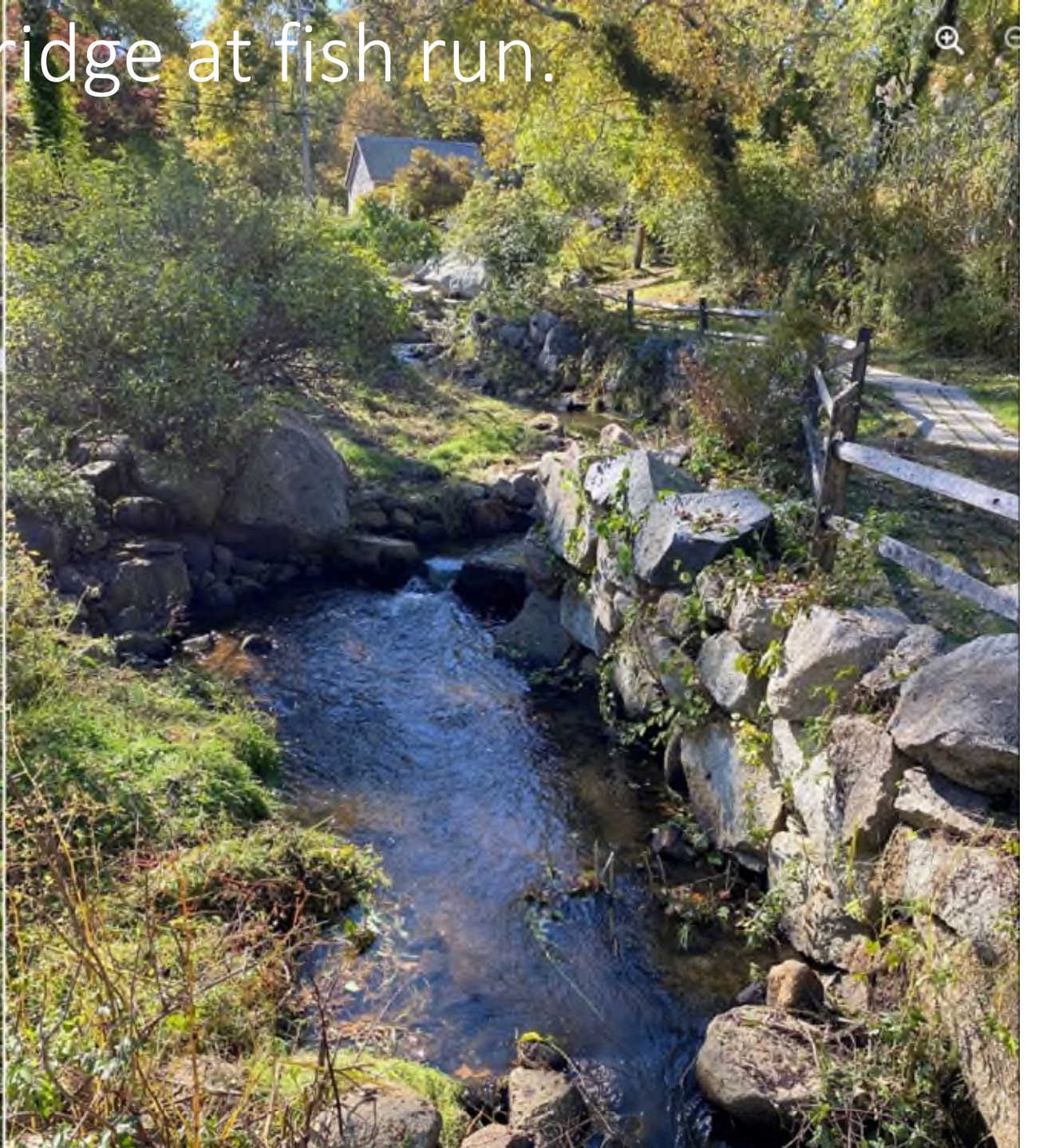
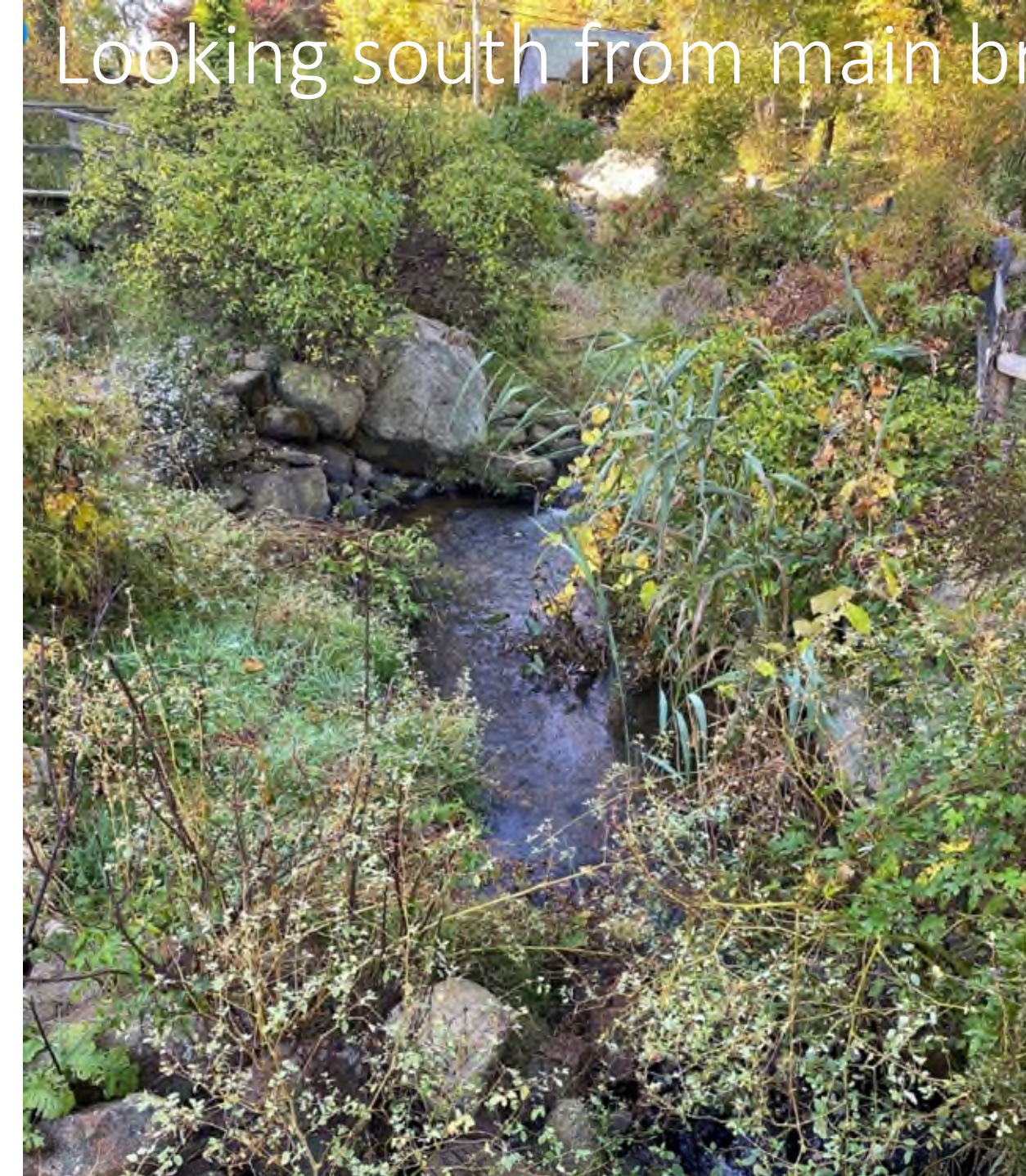
Looking north from main pool.



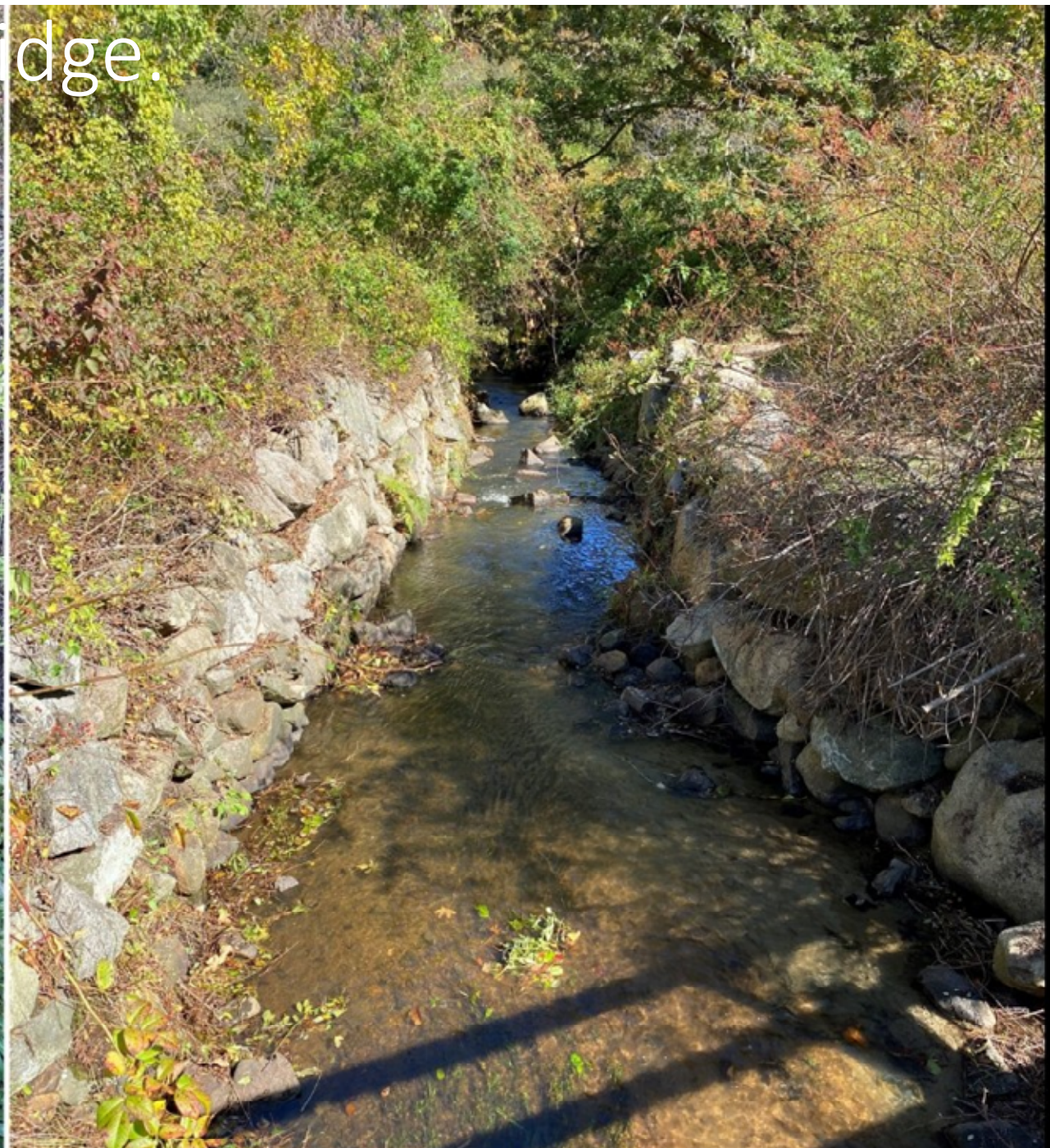
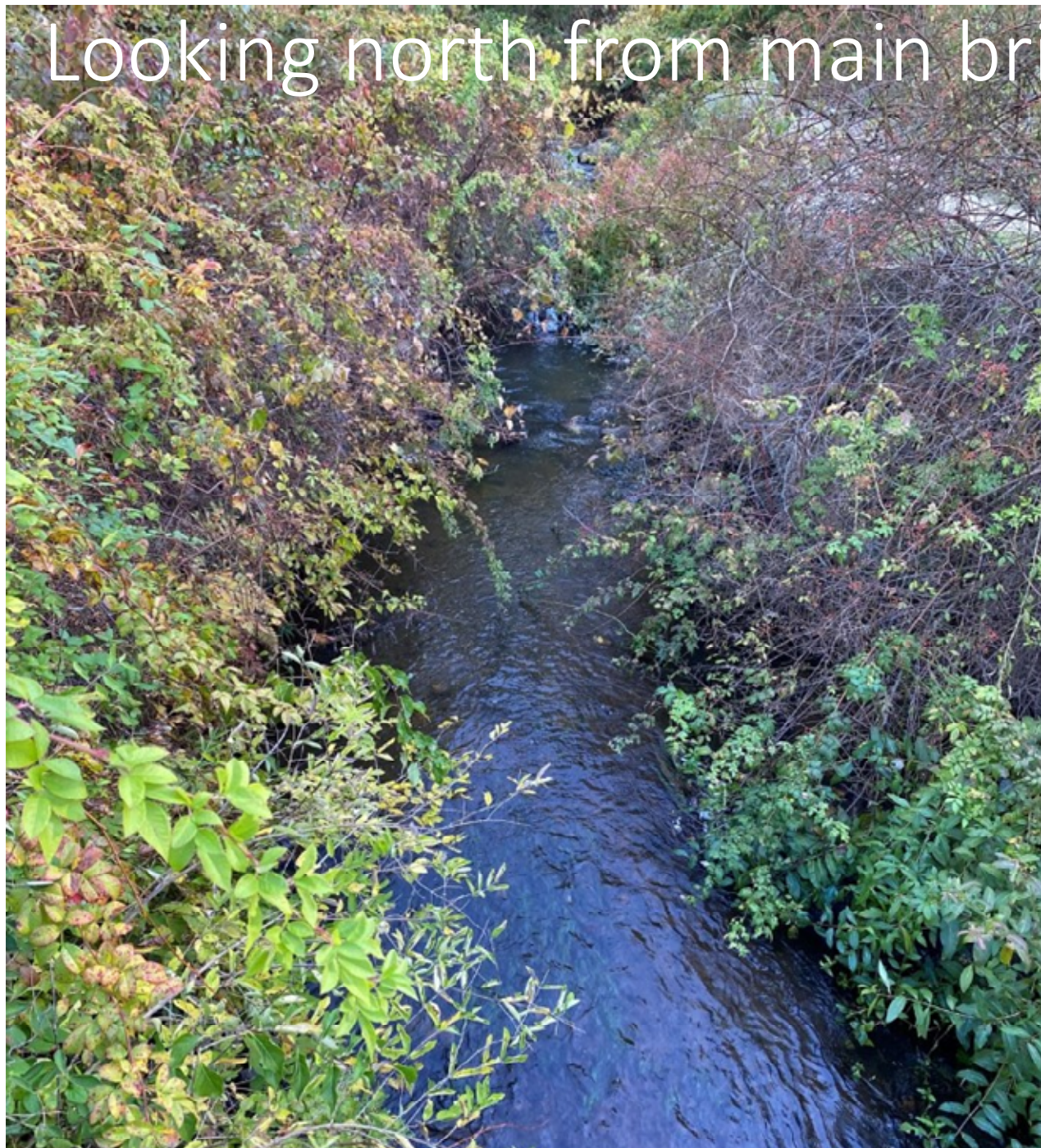
Looking south from main bridge at bypass channel.



Looking south from main bridge at fish run.



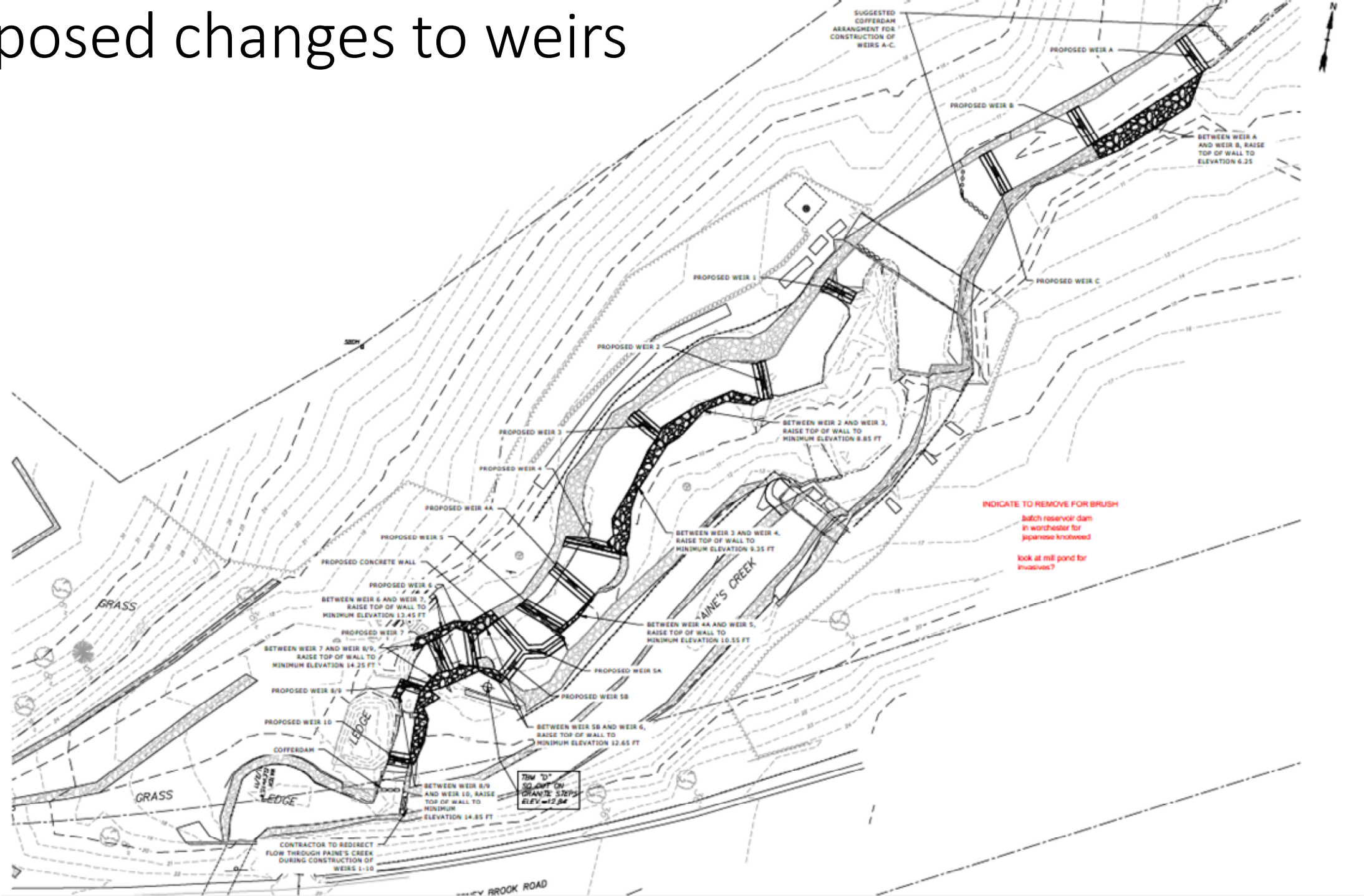
Looking north from main bridge.



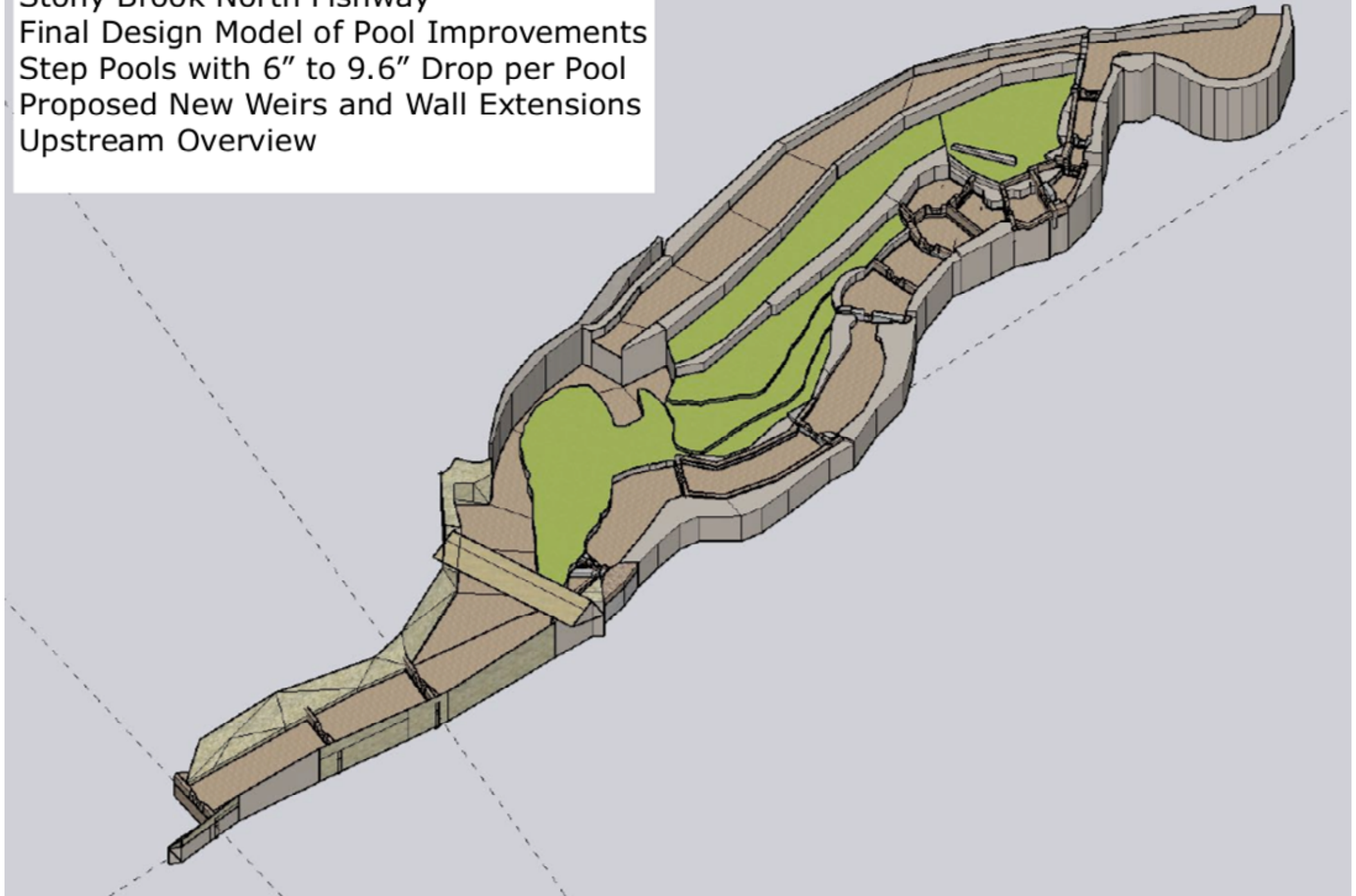
Existing conditions/weirs



Proposed changes to weirs



Stony Brook North Fishway
Final Design Model of Pool Improvements
Step Pools with 6" to 9.6" Drop per Pool
Proposed New Weirs and Wall Extensions
Upstream Overview

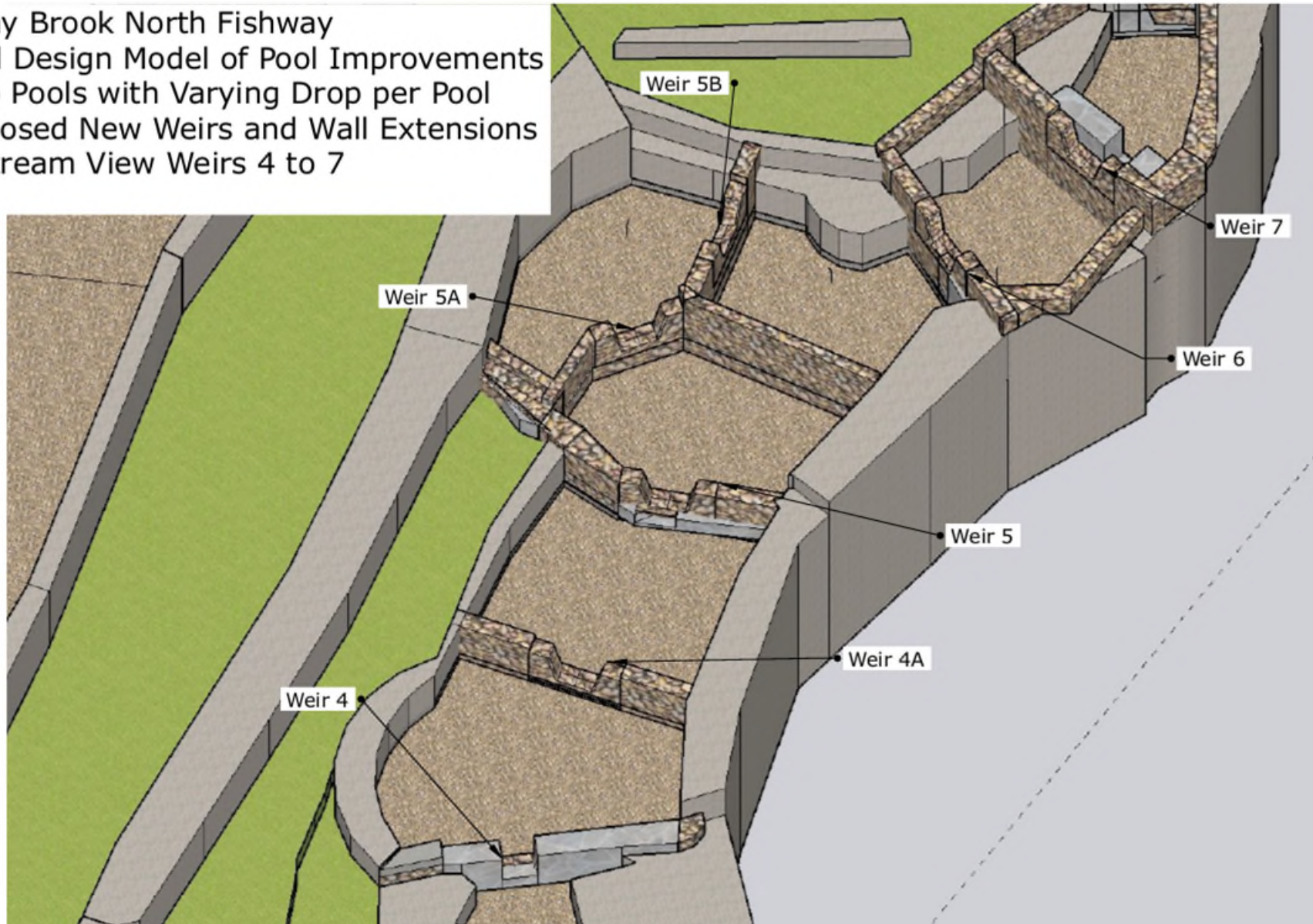


Stony Brook North Fishway
Final Design Model of Pool Improvements
Step Pools with varying Drop per Pool
Proposed New Weirs and Wall Extensions
Upstream View Weirs 5 to 10

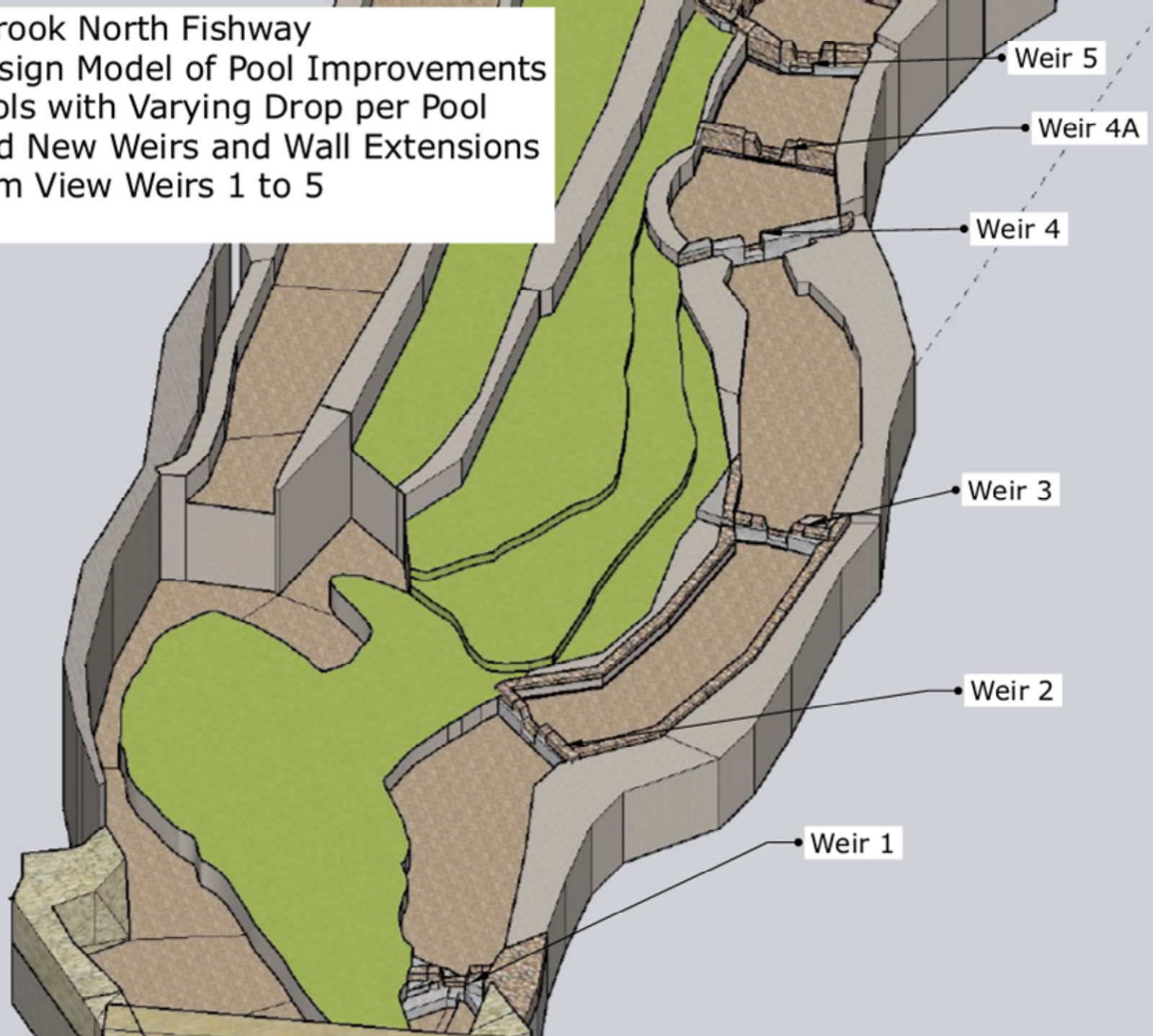


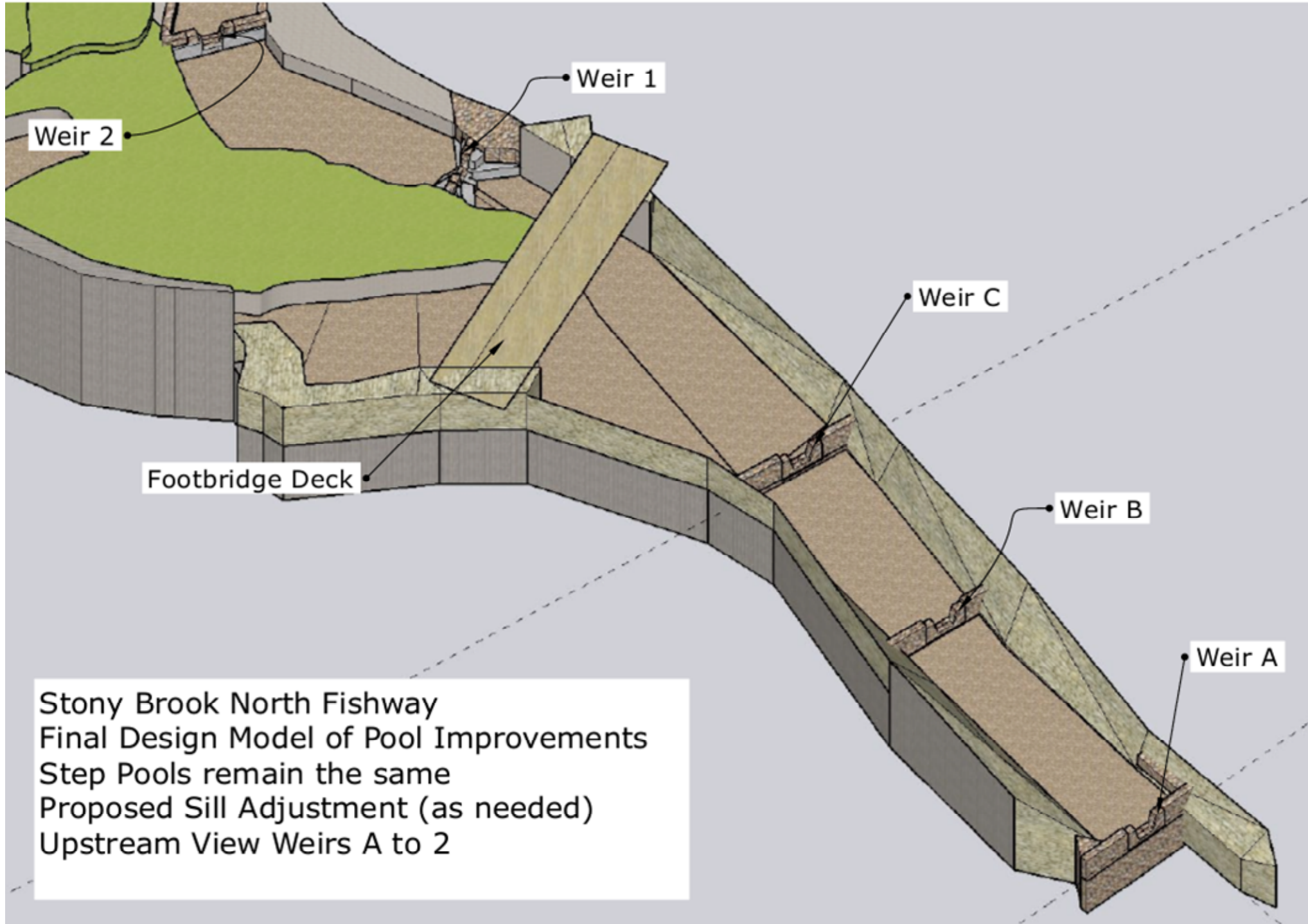


Stony Brook North Fishway
Final Design Model of Pool Improvements
Step Pools with Varying Drop per Pool
Proposed New Weirs and Wall Extensions
Upstream View Weirs 4 to 7



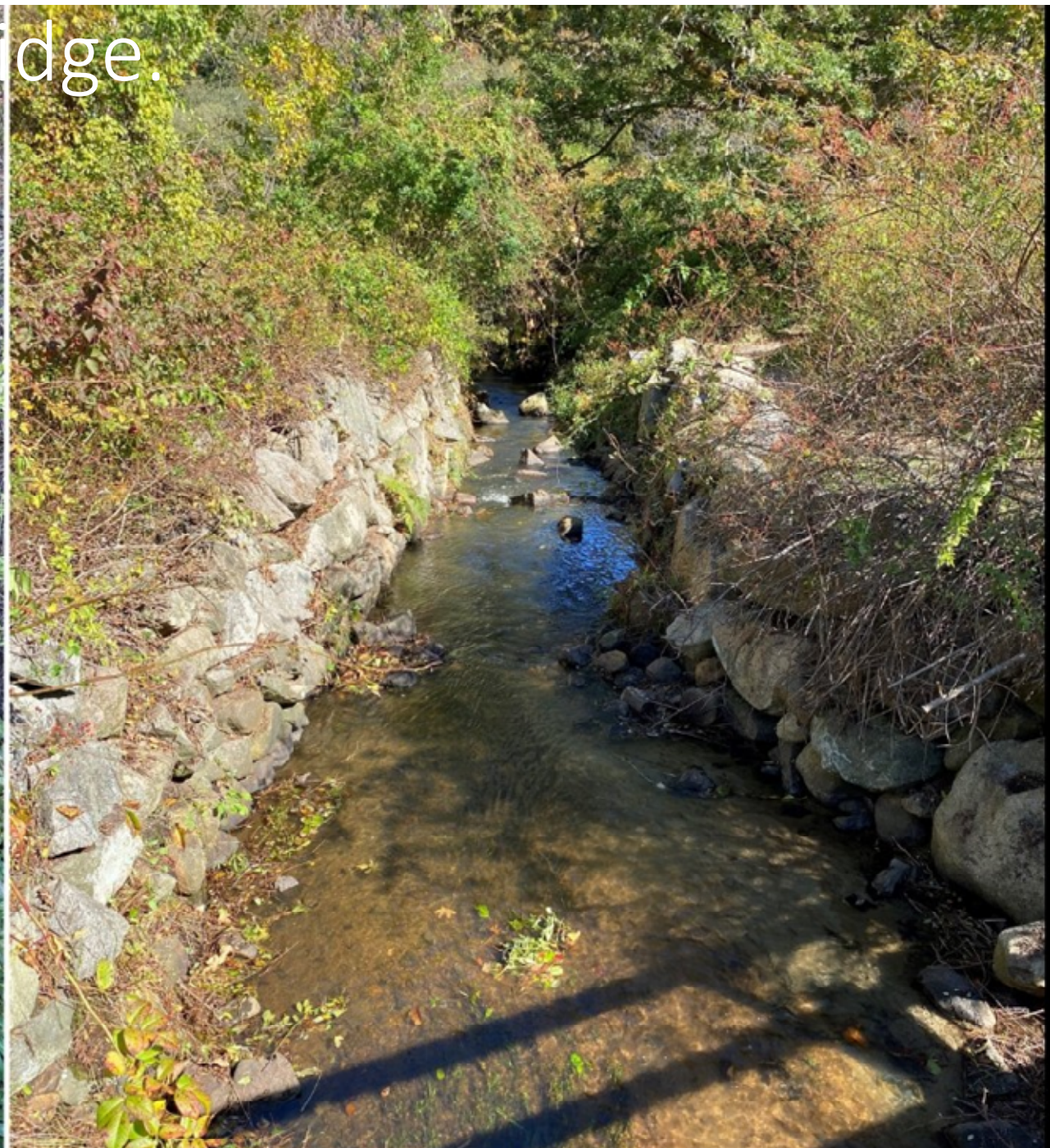
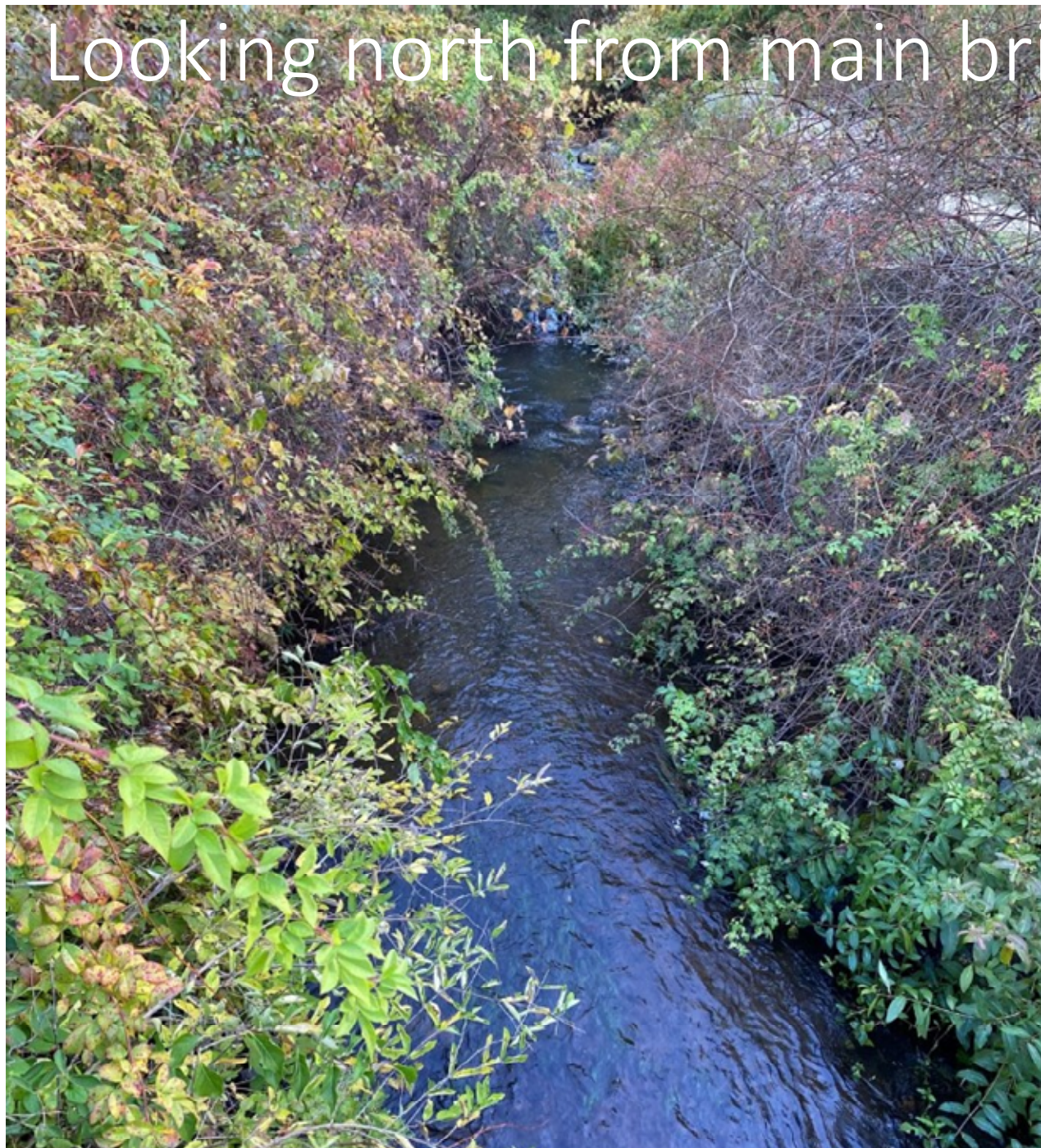
Stony Brook North Fishway
Final Design Model of Pool Improvements
Step Pools with Varying Drop per Pool
Proposed New Weirs and Wall Extensions
Upstream View Weirs 1 to 5





Stony Brook North Fishway
Final Design Model of Pool Improvements
Step Pools remain the same
Proposed Sill Adjustment (as needed)
Upstream View Weirs A to 2

Looking north from main bridge.







Budget

- Design services were funded by a grant from the Cape Cod Conservation District (\$50,000 towards fish passage north of the road, \$60,700 for design of the retaining wall work south of the road).
- Construction estimates are \$502,000 for the work on the retaining walls south of the road. The restoration/redesign of the fish passage north of the road is \$320,000. Bidding and engineering construction phase services are \$95,000, bringing the total to \$917,000 for construction. Final costs are subject to permit changes and public bidding.
- 75% of construction costs are provided by a grant from the NRCS Natural Resource Conservation Service, a part of the US Department of Agriculture (\$876,000).
- NRCS is also providing technical assistance funding during construction at \$116,000.
- Our local contributions include \$41,000 in permitting for the two phases of the project, approved last fall.
- **Brewster is responsible for a 25% match to the final construction cost.**
- We have a CPC grant for \$125,000
- **We are asking May Annual Town Meeting for \$200,000 for the rest of the local match.**

Thanks to project partners:

- **Town Staff**
- **Brewster Millsites Committee**
- **Brewster Alewife Committee**
- **Brewster Community Preservation Committee**
- **Citizens**





**Town of Brewster
Community Preservation
Committee**

2198 Main Street
Brewster, Massachusetts 02631-1898
(508) 896-3701 x 133
Fax (508) 896-8089



APPLICATION FOR COMMUNITY PRESERVATION

Date: November 25, 2020

Name of Applicant: Town of Brewster Natural Resources Department

Contact Individual: Chris Miller, Director, Natural Resources

Mailing Address: 2198 Main Street Brewster, MA 02631

Daytime Phone: 508-896-4546 **e-mail:** cmiller@brewster-ma.gov

Name of Proposal: Stony Brook Mill Retaining Wall Reconstruction

Address of Proposal (or assessor's parcel ID) Map 35 Lots 15 and 47

PROJECT SYNOPSIS

The Stony Brook Mill 2.69 acre site is divided east and west by Stony Brook- the "Herring Run" and into north and south sections by Stony Brook Road. A historic Grist Mill building and Mill Ponds are located on the south side, with historic foundations and paths on the north side. The Lower Mill Pond dam was historically constructed to increase water levels in the pond for power for the Mill, as well as to provide passage for migratory fish into the headwater ponds. A water control device is installed in the dam to control water into the headrace pond which operates the mill. The retaining wall supporting this pond is failing and is in danger of collapse, and the stone masonry wall in the main pool near the street is also degraded. Some of the base stones are displaced, and the wall needs to be reconstructed. The wall forms the western side of the fish run. In order to function safely as intended, the wall needs to be rehabilitated or replaced. The Town plans to replace the retaining wall in order to protect the diadromous (migratory) fish run. The failing wall is an historic landmark that cannot be removed and that provides a boost to the local economy through tourism.

Category (circle all that apply): Open Space Historic Preservation Recreation Community Housing

CPA funding requested \$ 125,000 **Total Cost of Proposed Project \$** 457,700

1. PROJECT DESCRIPTION:

The Stony Brook Mill 2.69 acre site is divided east and west by Stony Brook- the “Herring Run” and into north and south sections by Stony Brook Road. A historic Grist Mill building and Mill Ponds are located on the south side, with historic foundations and paths on the north side.

The Lower Mill Pond dam was historically constructed to increase water levels in the pond for power for the Mill, as well as to provide passage for migratory fish into the headwater ponds. Lower Mill Pond is one of the five headwater ponds of the Stony Brook watershed, and a destination for diadromous (migratory) fish. A water control device is installed in the dam to control water into the headrace pond which operates the mill. The retaining wall supporting this pond is failing and is in danger of collapse. Some of the base stones are displaced, and the wall needs to be reconstructed. The wall forms the western side of the fish run. In order to function safely as intended, wall need to be rehabilitated or replaced. The Town plans to replace the retaining wall in order to protect the diadromous (migratory) fish run. The failing wall is an historic landmark that cannot be removed and that provides a boost to the local economy through tourism.

The headrace pond and the fish passage channel are separated by a narrow berm retained on both sides with stone masonry walls. These walls, as well as the stone masonry wall along the fish pool just upstream of the Stony Brook Road culvert, are in distress and require replacement. The Millsites Committee intends to keep the current appearance of the walls; therefore, the design will include re-using existing stones on the face of the new walls, which are expected to consist of reinforced, cast in place concrete, similar to the recent dam reconstruction. While some exposed concrete is present at the dam, no concrete will be exposed on the new walls.

Issues to be addressed at the site;

- *Renovation of one of the defining historic resources at the site, the large stone retaining wall that forms the west side of the stream.*
- *CPC funding will preserve the historic look and feel of the property, including funding for stonework and site improvements to make the replacement retaining wall fit at a historic property.*

Related Projects:

- Electronic fish counter and stream renovation on north side, CPA \$3,101 2015
- Stony Brook dam replacement funded in part through CPA: \$130,000 + \$52,015 2013
- Extensive repairs to Mill: New historically accurate wheel/spillway and grindstone - funded thru CPA: \$138,0000 2011
- Stormwater improvements at site and along Stony Brook Valley: \$800,000 2006-present
- Stony Brook tidal restriction removal at Route 6A, NOAA Grant: \$1,647,000 in 2010
- Upper & Lower Mill Pond Water Quality Study 2007: \$200,000 ongoing
- Open Space preservation: Brewster has preserved an additional 1,000 acres surrounding headwater ponds; approximately 400 acres of salt marsh, beach and uplands in lower portion of Stony Brook Valley

2. CPA GOALS/CRITERIA:

The goals of this project encompass many areas of community preservation and enhancement including Historic Preservation, Open Space protection and Recreation enhancement, all contributing to the preservation of Brewster’s unique character.

The Stony Brook Site Improvements will:

- Contribute to the preservation of Brewster’s unique character
- Boost the vitality of the Town
- Serve more than one of the four CPA purposes
- Demonstrate practicality and feasibility, and ability to implement within budget
- Demonstrate a positive cost/benefit relationship
- Leverage additional public and/or private funds
- Preserve, enhance, or better utilize existing Town resources
- Receive endorsement by other Town committees and the Brewster public at large

Historic Preservation:

- Preserve, enhance, restore historic and cultural, architectural resources of significance
- Protect, preserve, enhance, restore town-owned properties or resources of historical significance
- Protect, preserve, enhance, restore and/or rehabilitate the historical function of a property or site
- Be within the Local Historic District, on a State or National Historic Register
- Demonstrate a public benefit

Historical Perspective:

The earliest white settlers arrived in Brewster circa 1650 when Quakers from Sandwich moved here to escape persecution. The Stony Brook Valley was their first settlement due to the numerous natural resources: ample salt meadows, fresh water with strong tidal flows for mills, woodlands for fuel, a herring fishery, nearness to Cape Cod Bay. The first Grist Mill was built at Stony Brook in 1662 and other mills soon followed. A fulling mill (in cloth production- a cleansing and thickening process) was built circa 1700; additionally a tidal mill was built on Stony Brook around 1750. A tannery stood on one bank of the millstream, a part of the "Factory Village" until it was destroyed by fire in 1871 and never rebuilt. Opposite the tannery, the present gristmill was built in 1873 on the foundation of the fulling mill, which had burned in 1760 and was then rebuilt as a woolen mill in 1814. The “Factory Village” brought people from all over looking to buy cloth, boots, and food. Maritime industries in Brewster peaked in the 1850’s and declined during the Civil War, with the loss of the southern markets and slave-dependent industries. However, land-based industries such as the Factory Village at the Stony Brook Mill continued to thrive. Additional history and information on the Herring Run is on the DVD, Stony Brook, The Story of Stony Brook Valley, which is available upon request.

Restoration of a significant important town-owned historic resource: The retaining wall forms the west side of the herring run, and also allows the impoundment of water in the headrace pond that provides water to the newly replaced water wheel of the grist Mill, turning the mill stone. The wall is leaking and slumping, its structure failing as toe stones in the wall are displaced.

Protect the historical function of a site: This property was accepted on the National Historic Register on June 15, 2000. Repair of the site must not only maintain the fishway and use of the mill, but must also be done in such a manner so as to not affect the historical integrity of the Old Mill Site.

Preservation/protection of the Stony Brook Herring Run and the Grist Mill Site provide an important public benefit: Today the Brewster Mill Sites Committee maintains the Old Grist Mill. The Mill also houses a display of many artifacts used throughout the Mill’s history. Adjacent to the Mill are walkways that allow visitors to observe how the water wheel works to grind corn, producing cornmeal which is then bagged for sale. The retaining wall also serves as a walkway on the west side of the fish run and east side of the headrace pond.

Open Space Protection:

- *Restoration of the stone retaining walls and Herring Run will preserve habitat of threatened and endangered species*
- *Enhancement and protection of an existing wildlife corridor*

- *Preservation and protection of important surface water bodies, including ponds and waterways*
- *Providing opportunities for passive recreation and environmental education*
- *Providing access to water (Stony Brook and Lower Mill Pond)*
- *Providing flood control/storage*
- *Providing connections with existing trails or potential trail linkages.*

Over the last twenty years, Brewster has preserved an additional 1,000 acres surrounding the headwater ponds; approximately 400 acres of salt marsh, beach and uplands in lower portion of Stony Brook Valley, all of which provide habitat support. The project will provide improved fish passage to 386 acres of habitat in the headwater ponds; Lower Mill, Upper Mill, Walkers, Slough and Canoe Ponds.

Each spring, the Alewives and other species travel up fish ladders maintained by the Brewster Alewife Committee. These fish are known as diadromous (incorporating both anadromous and catadromous species), species that use both marine and freshwater habitats during their life cycle. On Cape Cod, some species are anadromous (living primarily at sea, but migrating up river to spawn): these include Alewives (*Alosa pseudoharengus*), Blueback Herring (*Alosa aestivalis*), Hickory Shad (*Alosa mediocris*), Brook Trout (*Salmo trutta*) and Rainbow Trout (*Onchorhynchus mykiss*). The only catadromous (living primarily in ponds and rivers, but migrating out to sea to spawn) species in this run is the American Eel (*Anguilla rostrata*). The fish come from Cape Cod Bay and travel up Stony Brook to reach headwater ponds. This is the best run on Cape Cod and Brewster's most productive run. Once open for fishing, the run has been closed by the state for many years due to declining herring populations.

Over the past few years, the Alewives Committee and the Natural Resources Department have obtained a number of grants which have allowed them to engineer stormwater improvements at the site, along the Stony Brook Valley and to correct a tidal restriction at Route 6A. The Alewife Committee identified needed repairs to a deteriorating retaining wall adjacent to the run on the north side of the road, as well as to eroding banks and pathways along the run. The proposed solution involved repair and enhancement of the retaining wall by supplementing remaining vegetation with native plantings in conjunction with bioengineering measures which quickly re-stabilized the bank. This work also greatly benefited the numerous vertebrates and invertebrates that inhabit the stream and the marsh, where the Brook joins with Paines Creek and then flows into the bay, by reducing sedimentation and water turbidity. There are a number of aquaculture grants in this part of the Bay which could be negatively affected by sedimentation from this Brook. This repair work has greatly reduced sedimentation into the run during storm events. The Town has also used grant monies to pay for Walkers, Upper & Lower Mill Ponds Water Quality Studies, which are on-going.

This application specifically deals with **restoration of the stone retaining wall adjacent to the headrace pond**. This also includes **evaluation and maintenance of the pools in the run** between the road and Lower Mill Pond. Maintaining the run and improving the ladders enhances and **protects this important wildlife corridor**.

All of the restoration work allows the site to remain open and functioning as it did in the 1600's, providing opportunities for passive recreation, historical and environmental education.

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) has been contacted and has responded indicating that the project site is within *Priority Habitat 1385* and *Estimated Habitat 71* and must be reviewed by NHESP.

Recreation Enhancement:

- Support multiple active and passive recreation uses
- Serve a significant number of residents and visitors
- Expand the range of recreational opportunities available to all ages of Brewster residents and visitors

- Benefit other Brewster committees providing recreational resources to residents

Support multiple active and passive recreation uses: serve a significant number of residents and visitors.

The Stony Brook Herring Run and Grist Mill has long been one of Brewster’s most popular visitor sites. It is a regional attraction. Adjacent to the Mill are walkways that allow visitors to observe how the water wheel works to grind corn, producing cornmeal which is then bagged for sale. The property has numerous pathways designed to maximize access to the water, with over 1000 feet along the stream and 600 feet of frontage on the Lower Mill great pond. On each side of Stony Brook Road, families can stand on walkways and watch the annual fish migration, with its attending horde of gulls that periodically swoop down to catch a bite for dinner.

Provide connections with existing trails or potential trail linkages. Brewster Conservation Trust recently purchased adjacent landlocked property along Lower Mill Pond. The Town will construct a stream crossing and pathway to provide access for the public to this property and its additional shorefront property on Lower Mill Pond, including a local landmark, the “Fishing Rock”. (Attachment 3 e)

3. COMMUNITY BENEFITS:

The Stony Brook Valley, Herring Run and Millsites are important historic resources and as such are important to Brewster’s unique character. As major tourist attractions, these resources boost the vitality of the Town.

*Preservation of these assets serves more than one of the four CPA purposes: preservation of Open Space, preservation/rehabilitation of Historic Resources and preservation of Recreational lands. This project also serves to preserve, enhance and better utilize an existing Town resource. And, the **Millsite property is the Town’s first town Open Space parcel.***

*The project also saves resources that would otherwise be threatened (**river herring, a threatened species of special concern**).*

*The Town has **an award-winning project team** helping with permitting, fish ladder design, and engineering, to include the state Division of Marine Fisheries (DMF), the Cape Cod Conservation District, the USDA Natural Resources Conservation Service (NRCS), and our engineering firm, Tighe & Bond.*

*The project is **funded more than 50% through grant funds** from our federal partner NRCS.*

4. COMMUNITY SUPPORT:

The Town has leveraged many partners to provide funding for these projects, as detailed in the attached budget worksheet.

This site is popular with all ages. Many school groups visit via bus, especially in the spring during the Herring Run. Over the last few years the Mill Site has added a “Mills & Gills” festival which connects the historic activities at the site with environmental education on the Herring Run.

5. TIMELINE:

The Stony Brook Retaining Wall Improvement project has been underway for two years and as indicated above a substantial amount of the work has already been completed. The following timeline is specifically for the retaining wall restoration. It must be noted that any site work involving the pond/dam/fish run is extremely constrained based on the migratory cycle of the fish.

Mill Site Retaining Wall Project Timeline

April 2020	Contract signed with Cape Cod Conservation District for design
April 2020	Contract with engineering firm Tighe & Bond
September 2020	Detailed site survey completed
October 2020	Fish passage evaluation completed
December 2020	CPC application
December 2020	30% design plans
February 2021	66% design plans
February 2021	Permitting begins (Notice of Intent, MA Historic, Old Kings Highway Historic District)
March 2021	100% Design plans.
June 2021	Permits received
June/July 2021	Bidding for projects
October 2021	Construction
December 2021	Construction completion

6. CREDENTIALS:

The engineering for this project will be performed by Tighe & Bond by the end of this year. They conducted the Phase I Dam Safety Inspection as required by the State and designed and supervised the Stony Brook Millsite Dam Replacement project.

Town permit applications will be filed in January/February 2021. This portion of the project will go out to bid in June/July, with construction to be done in October 2021.

7. BUDGET:

We have attached the authorized contracts with CCCD, NRCS and Tighe & Bond.

The CCCD has provided \$42,700 in funding for the engineering design for the retaining wall replacement, and to conduct an evaluation of the fish run design.

NRCS has provided \$290,000 in construction funds.

The \$125,000 requested CPC funds will be the required local match to this federal funding, and will be directed to final permits, and stone facing on the dam (reusing existing stone).

8. MAINTENANCE:

Maintenance will be performed by Natural Resources Department staff and volunteers, as well as the DPW staff, members of the Millsites Committee and their volunteers.

9. SITE CONTROL: *Not applicable*

LIST OF ATTACHMENTS

Cape Cod Conservation District (funding for engineering design)
Tighe & Bond (engineers performing design)
Natural Resources Conservation Service (construction funding, requires local match)



Photo 1. Retaining wall extends from near wheel south along stream to first wooden bridge.



Photo 2. Retaining wall is slumping, rocks at base misplaced, and path above is slumping.

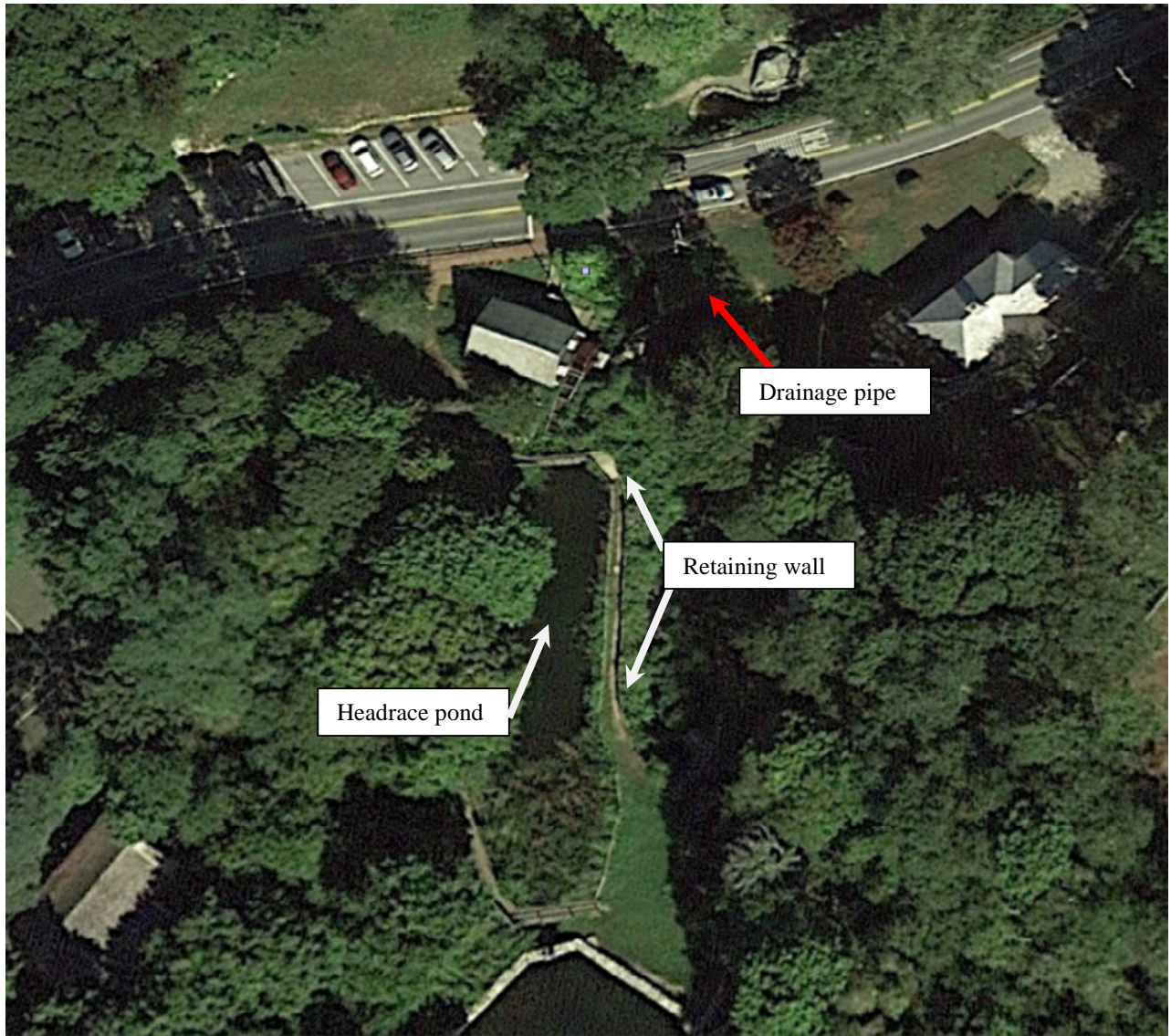


Photo 3: Aerial showing dam (at bottom) and Stony Brook Road to north. Note main section of retaining wall with foot path above, supporting the headrace pond used to run the mill wheel. Red arrow shows area of wall slumping at drain structure outfall in main pool.

Dam Location
 Latitude: 41.74431506
 Longitude: -70.11248397

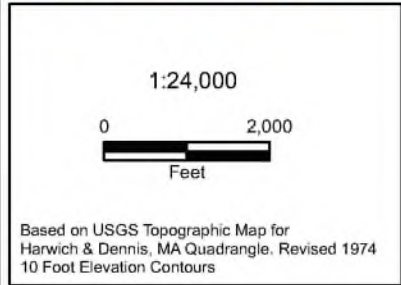
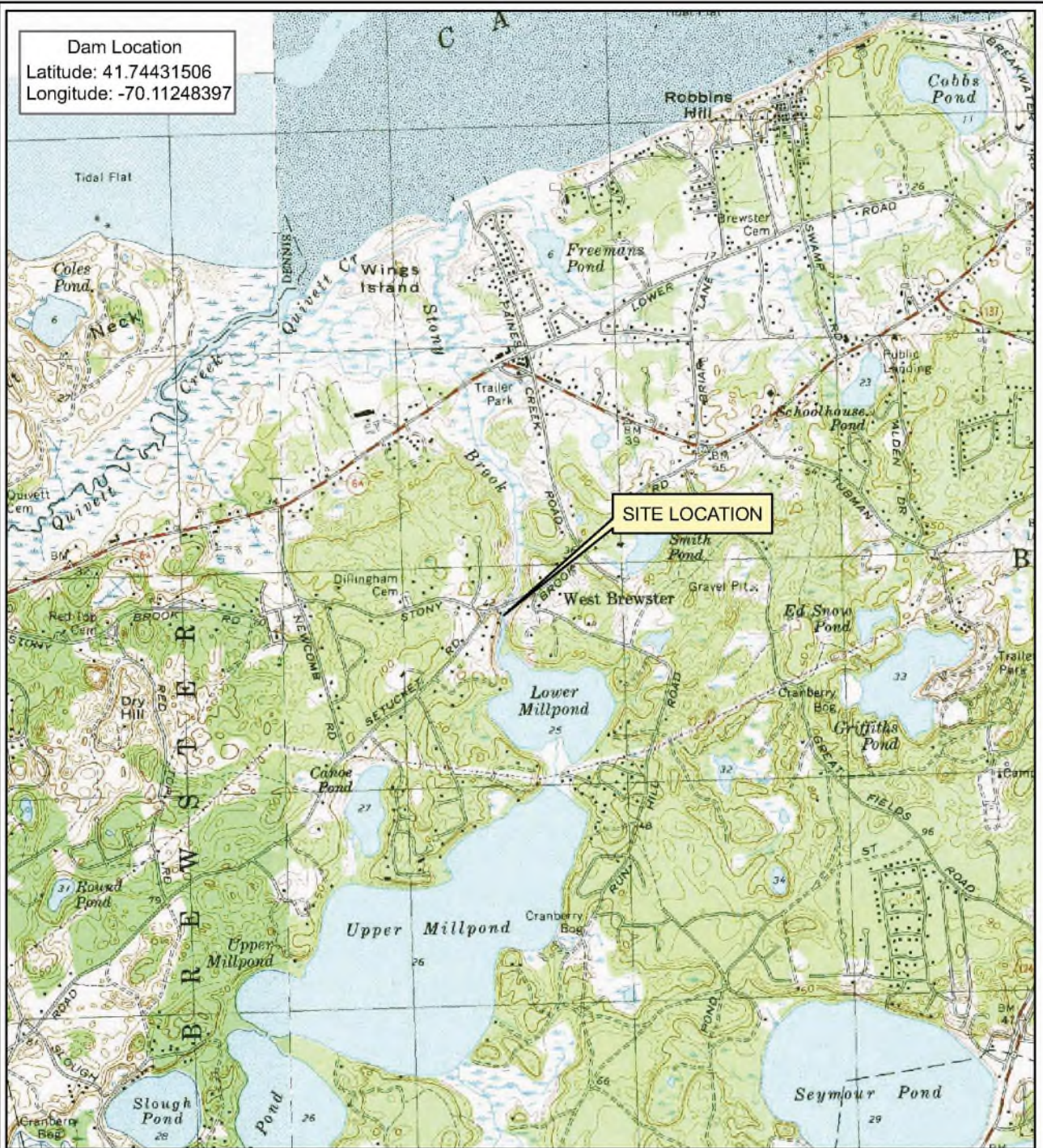


FIGURE 1
SITE LOCUS AND MAP
OF DOWNSTREAM AREA
 Lower Mill Pond Dam
 Brewster, Massachusetts
 MA 01076
Tighe & Bond
 November 2010

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B-0522



303 Main Street (Route 28), West Yarmouth, MA 02673

Tel: (508) 771-6476 • E-mail: capecodcd@gmail.com

web: www.capecodconservationdistrict.com

**Stoney Brook Fishway Field Survey and Grist Mill Retaining Wall Design
Brewster, MA
Cape Cod Water Resources Restoration Project
Barnstable County, Massachusetts
SERVICE AGREEMENT
Between the
Cape Cod Conservation District (CCCD) and the Town of Brewster, Massachusetts
April 2020**

Introduction

The Cape Cod Conservation District, hereinafter referred to as (CCCD) has entered into agreement with the USDA-Natural Resources Conservation Service to provide project analysis, plans and designs for individual projects to work toward implementation of the Cape Cod Water Resources Restoration Project (CCWRRP) under the federal Watershed Flood Prevention Operations Program (WFPO). The CCCD is a major project sponsor and coordinates with town sponsors to implement projects that meet the objectives of the CCWRRP as approved by Congress in 2009. The CCWRRP broadly focuses on watershed protection and fish and wildlife habitat improvement and specifically on projects that restore anadromous fish passage, projects that remediate stormwater that improve water quality for shellfish growing areas, and salt marsh restoration projects that restore tidal flows to tidally-restricted marshes.

Background

The Stony Brook Grist Mill and Museum is located at 830 Stony Brook Road in Brewster, Massachusetts. The existing Grist Mill and surrounding property are owned by the Town of Brewster and are overseen by the Mill Sites Committee¹ (Collectively the Client). The Site dates back to the sixteen-hundreds and has great historical significance. In addition, the Stony Brook and the Mill ponds are thriving fish spawning routes.

The Lower Mill Pond Dam is located south of the existing Grist Mill. The dam which is approximately 100-foot long was rehabilitated in 2013 with the construction of a new reinforced concrete retaining wall replacing the old stone masonry wall. Flow is discharged from the Lower Mill Pond through the primary spillway located on the east side of the dam and down the existing fish passage channel, or through a slide gate on the west side of the dam and down the headrace pond to the Grist Mill.

The headrace pond and the fish passage channel are separated by a narrow berm retained on both sides with stone masonry walls. These walls, as well as the stone masonry wall along the fish

pool just upstream of the Stony Brook Road culvert, are in distress and require replacement. The Millsites Committee intends to keep the current appearance of the walls; therefore, the design will include re-using existing stones on the face of the new walls, which are expected to consist of reinforced, cast in place concrete, similar to the recent dam reconstruction. While some exposed concrete is present at the dam, no concrete will be exposed on the new walls.

The proposed improvements consist of a new retaining wall separating the Grist Mill headrace pond and the fish ladder channel, and a new retaining wall for fish pool just upstream of the Stony Brook Road culvert.

The tasks described below include performing additional survey to evaluate the fishway profile for the entire fishway and preparing plans and technical specifications for the construction of the proposed retaining walls.

Agreement

NOW THEREFORE, The CCCD and the Town of Brewster, MA do mutually agree as follows:

Employment of Contractor: The CCCD hereby agrees to engage the Town of Brewster to perform the services described in the Scope of Work below.

1. Time of Performance: Work shall begin on or about April 1, 2020 and be completed by November 30, 2020 unless an extension in time is agreed to in writing by both CCCD and Town of Brewster.
2. Payment: CCCD shall compensate the Town of Brewster a fee not-to-exceed \$42,700 for services provided under the Scope of Work Deliverables. The Town of Brewster shall submit invoices quarterly to CCCD, detailing work progress and completed deliverables. Upon review and approval, payment shall be made by CCCD to the Town of Brewster within thirty (30) days. POC: Rick DeVergilio, Project Coordinator, rdevergilio@comcast.net, 508-648-2417.
3. Deliverables: All deliverables will be delivered via email, or other method mutually agreed to in advance and will be provided in MS Word, MS Excel, or other agreed upon format.
4. Termination or Suspension of Agreement for Cause. If through any sufficient cause CCCD or the Town of Brewster shall fail to fulfill or perform its duties and obligations under this Agreement, or if any party shall violate or breach any of the provisions of this Agreement, any party shall thereupon have the right to terminate or suspend this Agreement, by giving written notices to the other parties of such termination or suspension and specifying the effective date thereof. Such notice shall be given at least fifteen (15) calendar days before such effective date. In the event of such termination or suspension of the Agreement, the Town of Brewster shall be entitled to just and equitable compensation for satisfactory work completed in the performance of this Agreement up to and including the date of termination or suspension.
5. Modification of the Agreement: CCCD and the Town of Brewster may mutually agree in writing to a modification (including definition of scope, time of completion and budget for additional tasks as/if required) of the agreement at any time during the duration of this contract.

6. Interpretation and Severability: If any provision of this Agreement is declared or found to be illegal, unenforceable, or void, then all parties shall be relieved of all obligations under that provision. The remainder of the Agreement shall be enforced to the fullest extent permitted by law.

Scope of Services

Task 1.0: Field Survey

The town's A&E design firm will subcontract a Massachusetts licensed surveyor to perform an on-the-ground field survey to obtain the existing conditions of the fish passage located on the north and south side of Stony Brook Road at the Stony Brook Fishway. The survey will include the fishway profile from the exit of the Lower Mill pond to the fishway entrance at the downstream marsh. The total area is approximately 0.80 acres.

The survey will locate retaining walls, elevations at the weir notch or sill, weir top of wall, pool floor elevations at each of the pools, dimensions of each pool width and length, dimensions of each weir (sill width and top width), culvert inverts, size, material and condition, top and bottom of fishway walls along each pool, edge of water at enough locations to define the shape of each pool, the top and bottom of the wall forming the Lower Millpond and inverts for drainage and sewer structures found in the area. A minimum of 2 benchmarks will be established north and south of the Stony Brook Road. No boundary or right of way survey's will be performed. The right of ways and property lines will be taken from GIS and Assessors maps and therefore will be shown as approximate.

All field work will be conducted to produce plans at a scale of 1" = 40' with 1' contours. All data will be provided on the same project datum previously established is on the Massachusetts State Plane Coordinate System of NAD 1983 and vertically on NAVD 1988. The new survey will be merged with the existing survey.

Existing Conditions plan and profile in AutoCAD Civil 3D 2018 and delivered in electronic file format along with pdf's and hard copies. Drawings will show the fishway in a plan view with matching profile below the plan view. Plans stamped by a Massachusetts Professional Land Surveyor will be provided upon request.

The completed survey will be provided to the CCCD prior to initiation of the retaining wall design for review to determine if the fishway section adjacent to the subject retaining wall meets current fish passage design standards. And if appropriate, any recommended fishway design improvements will be provided to the town's A&E firm to assure the new retaining wall design is consistent with the recommendations. Design sequencing is as follows:

1. *A kick-off meeting to be conducted with design lead, survey lead, along with town, NRCS and CCCD representatives to review the project objectives, survey plan, design process and requirements, schedule, and reviews and approvals.*
2. *Collection of field data.*
3. *Provide the completed survey to NRCS and the CCCD.*

4. *Concurrent analysis for retaining wall and evaluation of fishway (south) where wall is located.*
5. *Meeting to discuss any fishway (south) improvements and preliminary wall design (prior to the 33% design or in conjunction with); resolve any conflicts to incorporate conceptual fishway (south) modifications into the wall design.*
6. *Evaluation of remaining fishway (north); conceptual design by CCCD.*
7. *Development of design (fishway (south) and Grist Mill headrace pond retaining wall) submittals by AE.*
8. *Reviews and resolution of comments on design submittals (33%, 67%, 100%). The 67%, 100% and Issued for Construction design submittals shall include but not limited to:*
 - a. *Construction drawings and construction & material specifications.*
 - b. *Opinion of probable construction costs.*
 - c. *Operation and maintenance plan.*
 - d. *Quality assurance plan.*
 - e. *Construction schedule, construction performance time and bid schedule.*
9. *Complete wall design with the fishway (south) improvements. Upon resolution of comments on the 100% design the Issued for Construction drawings and specifications will be prepared.*
10. *Meetings/teleconferences shall be scheduled along with the review milestones. The AE shall schedule the review meetings/teleconferences to discuss their resolutions of review comments.*

Task 2.0: Retaining Wall Design/Drawings

The town's A&E design firm will prepare draft and final plans and technical specifications, opinion of probable cost, did schedule and operation and maintenance plan, for review by the town and CCCD. A maximum of ten technical specifications will be provided in the Construction Specifications Institute 1995 format:

- 02200 Site Preparation
- 02210 Subsurface Investigations
- 02225 Selective Demolition
- 02315 Excavation, Backfill, Compaction and Dewatering
- 02320 Borrow Materials
- 02921 Vegetative Support Material
- 02922 Hydroseeding and Mulching
- 03100 Concrete Forms and Accessories
- 03200 Concrete Reinforcement
- 03300 Cast-in-Place Concrete

Each specification will include a section addressing Quality Assurance to be implemented during construction. A maximum of ten Drawing Sheets will be provided. The Contract Drawings will include the following sheets:

- Cover Sheet;
- General Notes and Legend;
- Existing Condition Plan and Profile and Site Preparation Plan (up to 2 sheets);
- Proposed Condition Plan (up to 2 sheets);
- Cross Sections;
- Details (up to 2 sheets);
- Structural Notes and Details.

All work shall conform to all NRCS policy documents and technical guidelines and references. NRCS Policy documents will include the General Manual (GM), National Engineering Manual (NEM), National Operations and Maintenance Manual (NOMM), and the National Watershed Manual (NWM). NRCS Technical Material will include all the sections in, but not limited to, the National Engineering Handbook (NEH), National Handbook of Conservation Practices (NHCP), Technical Releases (TR), and Technical Notes (TN)".

Plans and specifications will be delivered according to the following design stages:

- **Kick-Off Meeting** – Town’s A&E to conduct a kick-off meeting with town, NRCS and CCCD to review the project objectives, survey plan, design process and requirements, schedule and reviews and approvals.
- **New Survey** – Field Survey (Task 1 above) will be integrated with the existing survey from the previous dam re-construction project and provided to CCCD for Fish Specialist review to assess if design changes are needed in the fishway passage adjacent to the subject retaining wall to be improved. The CCCD Fish Passage Specialist will prepare a conceptual design, if changes to the subject fish passage section are needed. A&E will meet with the specialist to discuss the fishway improvements and preliminary wall design.
- **33% Draft Plans** – Town’s A&E firm will provide preliminary design plans at the 33% level for review and comments by CCCD and will conduct a conference call to present the 33% plans to discuss the design and address the questions and comments.
- **67% Draft Plans** – Town’s A&E firm will incorporate comments from the 33% level review, will move forward with design, and will provide updated plans for review at the 67% level and conduct a conference call to discuss questions and comments. This level of plans will be suitable for permit application.
- **100% Design Plans and Specifications** – Town’s A&E firm will incorporate comments from the town and CCCD and permitting agencies from the 67% level for final plans and specifications. A conference call will be conducted to discuss the final questions and comments. Construction schedule, performance time, and opinion of probable cost and bid schedule to be included in 100% design.

Task 3.0: Project Coordination

The town’s A&E firm project manager will email the project team on a monthly basis with a bullet list of work completed since the previous report and anticipated work to be performed the following month to allow the team to follow progression.

Schedule

Town’s A&E firm will begin work on this project upon receipt of a Notice to Proceed and signed

contract with the Town of Brewster. The following is the anticipated the schedule.

- Kick-off meeting to be held within 3 weeks of Notice to Proceed.
- Field Survey to be completed after 8 weeks from Notice to Proceed and will then be provided to CCCD for Fish Passage Specialist for pre-design review.
- 33% Draft Plans – Submitted for review after 8 weeks from receipt of conceptual fish passage design input from Specialist.
- 67% Draft Plans and Specifications – Submitted for review within two months of receipt of Town’s comments to 33% design submittal.
- 100% Plans and Specifications - Completed 5 weeks after 67% level comments and Town acquired permits are received.
- Monthly Progress Reports - shall include a summary of the work completed since the previous report, the anticipated work to be performed the following month, and an update on the project schedule.

Budget

The survey and design services outlined above will be provided for a lump sum fee not-to-exceed \$42,700. Invoicing will be based on percentage of services completed.

Authorization to Proceed:

Signers:

Date: _____

DocuSigned by:
Peter Lombardi
 CF50BE68856842B...
Peter Lombardi, Town of Brewster
 4/3/2020

DocuSigned by:
Mimi Bernardo
 0E9569E14E784EC...
Mimi Bernardo, Finance Director
 4/3/2020

Mark R Forest
 4/5/2020

Mark Forest, Chair, Cape Cod Conservation District

**AGREEMENT FOR PROFESSIONAL
ENGINEERING SERVICES
BETWEEN
THE TOWN OF BREWSTER, MASSACHUSETTS
AND
TIGHE & BOND, INC.**

**FOR GEOTECHNICAL SERVICES FOR RETAINING WALL IMPROVEMENTS AT
GRIST MILL POND**

THIS AGREEMENT made this 3rd day of April, 2020 between Tighe & Bond, Inc., a Massachusetts corporation, with a usual place of business at 53 Southampton Road, Westfield, MA, hereinafter called the "ENGINEER," and the Town of Brewster, MA, acting by its Town Administrator, with a usual place of business at 2198 Main Street, Town Hall, Brewster MA 02631 hereinafter called the "TOWN".

The ENGINEER and the TOWN, for the consideration hereinafter named, agree as follows:

1. Scope of Work

The ENGINEER shall perform the work set forth in the Engineer's Proposal dated November 1, 2019 and revised March 31, 2020, a copy of which is attached hereto as Exhibit A.

2. Contract Price

The TOWN shall pay the ENGINEER for services rendered in the performance of this Agreement a lump sum of \$42,700.00. The amount to be paid to the ENGINEER shall not exceed \$42,700.00 without the prior written consent of the TOWN.

3. Commencement and Completion of Work

- A. This Agreement shall commence on the date hereof and shall expire on November 30, 2020, unless terminated sooner in accordance with this Agreement.
- B. Progress and Completion: ENGINEER shall commence work promptly upon execution of this Agreement and shall prosecute and complete the work regularly, diligently and uninterruptedly at such a rate of progress as will insure completion in a timely manner.

4. Performance of the Work

The ENGINEER shall supervise and direct the Work, using that degree of care and skill ordinarily exercised under similar circumstances by prudent members of the profession practicing in the same or similar locality for projects similar to the Project in scope, difficulty and location.

A. Responsibility for the Work:

- (1) The ENGINEER shall be responsible to the TOWN for the acts and omissions of his employees, subcontractors and their agents and employees, and other persons performing any of the Work under a contract with the ENGINEER. Consistent with the standard of care referenced above, the ENGINEER shall be responsible for the professional and technical accuracy for all work or services furnished by him or his consultants and subcontractors. The ENGINEER shall perform his work under this Agreement in such a competent and professional manner that detail checking and reviewing by the TOWN shall not be necessary.
- (2) The ENGINEER shall not employ additional consultants, nor sublet, assign or transfer any part of his services or obligations under this Agreement without the prior approval and written consent of the TOWN. Such written consent shall not in any way relieve the ENGINEER from his responsibility for the professional and technical accuracy for the work or services furnished under this Agreement.
- (3) All consultants must be registered and licensed in their respective disciplines if registration and licensure are required under the applicable provisions of Massachusetts law.
- (4) The ENGINEER and all consultants and subcontractors shall conform their work and services to any guidelines, standards and regulations of any governmental authority applicable to the type of work or services covered by this Agreement.
- (5) The ENGINEER shall not be relieved from its obligations to perform the work in accordance with the requirements of this Agreement either by the activities or duties of the TOWN in its administration of the Agreement, or by inspections, tests or approvals required or performed by persons other than the ENGINEER.
- (6) Neither the TOWN's review, approval or acceptance of, nor payment for any of the work or services performed shall be construed to operate as a waiver of any rights under the Agreement or any cause of action arising out of the performance of the Agreement.

B. Deliverables, Ownership of Documents: One (1) reproducible copy of all drawings, plans, specifications and other documents prepared by the ENGINEER shall become the property of the TOWN upon payment in full therefor to the ENGINEER. Ownership of stamped drawings and specifications shall not include the ENGINEER's certification or stamp. Any re-use of such documents without the ENGINEER's written verification of suitability for the specific

purpose intended shall be without liability or legal exposure to the ENGINEER or to the ENGINEER's independent professional associates, subcontractors or consultants. Distribution or submission to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as an act in derogation of the ENGINEER's rights under this Agreement.

- C. Compliance with Laws: In the performance of the Work, the ENGINEER shall comply with all applicable federal, state and local laws and regulations, including those relating to workplace and employee safety.

5. Site Information Not Guaranteed; Contractor's Investigation

The TOWN shall furnish to the ENGINEER available surveys, data and documents relating to the area which is the subject of the Scope of Work. All such information, including that relating to subsurface and other conditions, natural phenomena, existing pipes, and other structures is from the best sources at present available to the TOWN. All such information is furnished only for the information and convenience of the ENGINEER and is not guaranteed. It is agreed and understood that the TOWN does not warrant or guarantee that the subsurface or other conditions, natural phenomena, existing pipes, or other structures will be the same as those indicated in the information furnished, and the ENGINEER must satisfy himself as to the correctness of such information. If, in the opinion of the ENGINEER, such information is inadequate, the ENGINEER may request the TOWN's approval to verify such information through the use of consultants or additional exploration. In no case shall the ENGINEER commence such work without the TOWN's prior written consent. Such work shall be compensated as agreed upon by TOWN and ENGINEER.

6. Payments to the Contractor

- A. Cost incurred on this project shall be billed monthly on a percent complete basis as outlined in the attached Scope of Services for the lump sum of \$42,700. Payment shall be due 30 days after receipt of an invoice by the TOWN.
- B. If there is a material change in the scope of work, the TOWN and the ENGINEER shall mutually agree to an adjustment in the Contract Price.
- C. If the TOWN authorizes the ENGINEER to perform additional services, the ENGINEER shall be compensated in an amount mutually agreed upon, in advance, in writing. Except in the case of an emergency, the ENGINEER shall not perform any additional services until such compensation has been so established.

7. Reimbursement

Except as otherwise included in the Contract Price or otherwise provided for under this Agreement, the ENGINEER shall be reimbursed by the TOWN: (a) at 1.1 times the actual cost to the ENGINEER of consultants retained to obtain information pursuant to Article 5 hereof or

otherwise. No such reimbursement shall be made unless the rates of compensation have been approved, in advance, by the TOWN; (b) at 1.1 times the actual cost of additional or specially authorized expense items, as approved by the TOWN.

8. Final Payment, Effect

The acceptance of final payment by the ENGINEER shall constitute a waiver of all claims by the ENGINEER arising under the Agreement.

9. Terms Required by Law

This Agreement shall be considered to include all terms required to be included in it by the Massachusetts General Laws, and all other laws, as though such terms were set forth in full herein.

10. Indemnification

- A. General Liability: The ENGINEER shall indemnify and hold harmless the TOWN from and against any and all claims, damages, losses, and expenses, including attorney's fees, to the extent arising out of the performance of this Agreement and to the extent the same relate to matters of general commercial liability, when such claims, damages, losses, and expenses are caused, by the negligent or wrongful acts or omissions of the ENGINEER or his employees, agents, subcontractors or representatives.
- B. Professional Liability: The ENGINEER shall indemnify and hold harmless the TOWN from and against any and all claims, damages, losses, and expenses, including attorney's fees, arising out of the performance of this Agreement and to the extent the same relate to the professional competence of the ENGINEER's services, when such claims, damages, losses, and expenses are caused by the negligent acts, negligent errors or omissions of the ENGINEER or his employees, agents, subcontractors or representatives.

11. Insurance

- A. The ENGINEER shall at his own expense obtain and maintain a Professional Liability Insurance policy for errors, omissions or negligent acts arising out of the performance of this Agreement in an amount of \$1,000,000.00. Said amount shall be the limits of ENGINEER's liability.
- B. The coverage shall be in force from the time of the agreement to the date when all construction work for the Project is completed and accepted by the TOWN. If, however, the policy is a claims made policy, it shall remain in force for a period of six (6) years after completion.

Since this insurance is normally written on a year-to-year basis, the ENGINEER shall notify the TOWN should coverage become unavailable.

- C. The ENGINEER shall, before commencing performance of this Agreement, provide by insurance for the payment of compensation and the furnishing of other benefits in accordance with M.G.L. c.152, as amended, to all its employees and shall continue such insurance in full force and effect during the term of the Agreement.
- D. The ENGINEER shall carry insurance in a sufficient amount to assure the restoration of any plans, drawings, computations, field notes or other similar data relating to the work covered by this Agreement in the event of loss or destruction until the final fee payment is made or all data are turned over to the TOWN.
- E. The ENGINEER shall also maintain public liability insurance, including property damage, bodily injury or death, and personal injury and motor vehicle liability insurance against claims for damages because of bodily injury or death of any person or damage to property.
- F. Evidence of insurance coverage and any and all renewals substantiating that required insurance coverage is in effect shall be filed with the Agreement. Any cancellation of insurance, whether by the insurers or by the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the TOWN at least fifteen days prior to the intended effective date thereof, which date shall be expressed in said notice.
- G. Upon request of the ENGINEER, the TOWN reserves the right to modify any conditions of this Article.

12. Notice

All notices required to be given hereunder shall be in writing and delivered to, or mailed first class to, the parties' respective addresses stated above. In the event that immediate notice is required, it may be given by telephone or facsimile, but shall, to the extent possible, be followed by notice in writing in the manner set forth above.

13. Termination

- A. Each party shall have the right to terminate this Agreement in the event of a failure of the other party to comply with the terms of the Agreement. Such termination shall be effective upon seven days' notice to the party in default and the failure within that time of said party to cure its default.
- B. The TOWN shall also have the right to terminate the Agreement without cause, upon ten (10) days' written notice to the ENGINEER. In the event that the Agreement is terminated pursuant to this subparagraph, the ENGINEER shall be

reimbursed in accordance with the Agreement for all work performed up to the termination date.

14. Miscellaneous

- A. Assignment: The ENGINEER shall not assign or transfer any of its rights, duties or obligations under this Agreement without the written approval of the TOWN.
- B. Governing Law: This Agreement shall be governed by and construed in accordance with the law of the Commonwealth of Massachusetts.
- C. Section 44 of the Green Communities Act of 2008 (Acts 2008, Chapter 169) created section 14 of G.L. c. 25A, which authorizes a state agency, building authority or local governmental body (“public entity”) to contract directly with their gas or electric utility supplier for “energy conservation projects” having a “total project cost” of \$100,000 or less.
The spirit of G.L. c.25A, §14 is to provide a limited exemption from the competitive requirements of the public construction bid laws for energy conservation projects with a total project cost of \$100,000 or less. G.L. c. 149, the public building construction law, and G.L. c. 30, §39M, the public works construction law, do not apply to contracts entered into under G.L. c. 25A, §14.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals, the TOWN by its authorized representative who, however, incurs no personal liability by reason of the execution hereof or of anything herein contained, as of the day and year first above written.

TIGHE & BOND, INC.

TOWN OF BREWSTER:

By: _____

By: _____

DocuSigned by:
Peter Lombardi
CF50BE66859842D...

4/3/2020

Name: April S. Lassard _____
Type or Print

Title: Senior Contracts Manager _____

CERTIFICATION OF AVAILABILITY OF FUNDS

In accord with General Laws, Chapter 44, §31C, this is to certify that an appropriate in the amount of this contract is available therefor.

DocuSigned by:
Mimi Bernardo
0E9569E14E784EC...

By: Town Accountant

4/3/2020

519856/KOPE/0003

T-5030-0-P001
November 1, 2019 - Revised March 31, 2020

Mr. Chris Miller, Director
Natural Resources Department
Brewster Town Hall
Brewster, MA 01631

**Re: Geotechnical Services for Retaining Wall Improvements – Grist Mill Pond
830 Stony Brook Road, Brewster, Massachusetts**

Dear Chris:

Thank you for considering Tighe & Bond as your engineering consultant for this project. Tighe & Bond is pleased to submit this proposal for improvements to the existing Stony Brook Grist Mill Pond retaining walls.

The proposed improvements consist of a new retaining wall separating the Grist Mill headrace pond and the fish ladder channel, and a new retaining wall for fish pool just upstream of the Stony Brook Road culvert. Tighe & Bond has prepared this scope of work and proposed fee based on our discussions to date, a site visit performed on October 23, 2019 and an existing record drawing set entitled "Lower Mill Pond Dam Rehabilitation, Brewster, Massachusetts" prepared by Tighe & Bond dated August 2012.

The tasks described below include performing additional survey to evaluate the fishway profile and preparing plans and technical specifications for the construction of the proposed retaining walls. It is our understanding that permit application for this project will be performed by the Town as a cost savings measure, but we can provide these services if needed. Bid document preparation, bidding assistance, and construction phases services are not included since they cannot be properly defined until the design is complete and potential permit conditions are known.

Project Understanding

The Stony Brook Grist Mill and Museum is located at 830 Stony Brook Road in Brewster, Massachusetts. The existing Grist Mill and surrounding property are owned by the Town of Brewster and are overseen by the Mill Sites Committee¹ (Collectively the Client). The Site dates back to the sixteen-hundreds and has great historical significance. In addition, the Stony Brook and the Mill ponds are thriving fish spawning routes.

The Lower Mill Pond Dam is located south of the existing Grist Mill. The dam which is approximately 100-foot long was rehabilitated in 2013 with the construction of a new reinforced concrete retaining wall replacing the old stone masonry wall. Flow is discharged from the Lower Mill Pond through the primary spillway located on the east side of the dam and down the existing fish passage channel, or through a slide gate on the west side of the dam and down the headrace pond to the Grist Mill.

The headrace pond and the fish passage channel are separated by a narrow berm retained on both sides with stone masonry walls. These walls, as well as the stone masonry wall along the fish pool just upstream of the Stony Brook Road culvert, are in distress and require replacement. It is our understanding that the Millsites Committee intends to keep

¹ <https://www.brewster-ma.gov/history-of-factory-village-and-stony-brook-grist-mill>



the current appearance of the walls; therefore, the design will include re-using existing stones on the face of the new walls, which are expected to consist of reinforced, cast in place concrete, similar to the recent dam reconstruction. While some exposed concrete is present at the dam, we understand that no concrete will be exposed on the new walls.

Both headrace pond and fish pool have been partially filled in with sediment. As a result, another design goal is to dredge these areas, if costs are within the Town's financial means.

Tighe & Bond will use the topographic survey from our dam re-construction design.

Geotechnical Design Services

Task 1.0: Field Survey

Tighe & Bond will subcontract a Massachusetts licensed surveyor to perform an on-the-ground field survey to obtain the existing conditions of the fish passage located on the north and south side of Stony Brook Road at the Stony Brook Fishway. The survey will include the fishway profile from the exit of the Lower Mill pond to the fishway entrance at the downstream marsh. The total area is approximately 0.80 acres.

The survey will locate retaining walls, elevations at the weir notch or sill, weir top of wall, pool floor elevations at each of the pools, dimensions of each pool width and length, dimensions of each weir (sill width and top width), culvert inverts, size, material and condition, top and bottom of fishway walls along each pool, edge of water at enough locations to define the shape of each pool, the top and bottom of the wall forming the Lower Millpond and inverts for drainage and sewer structures found in the area. A minimum of 2 benchmarks will be established north and south of the Stony Brook Road. No boundary or right of way survey's will be performed. The right of ways and property lines will be taken from GIS and Assessors maps and therefore will be shown as approximate.

Field work will be conducted to produce plans at a scale of 1" = 40' with 1' contours. Data will be provided on the same project datum previously established is on the Massachusetts State Plane Coordinate System of NAD 1983 and vertically on NAVD 1988. The new survey will be merged with the existing survey.

Existing Conditions plan and profile in AutoCAD Civil 3D 2018 and delivered in electronic file format along with pdf's and hard copies. Drawings will show the fishway in a plan view with matching profile below the plan view. Plans stamped by a Massachusetts Professional Land Surveyor will be provided upon request.

Task 2.0: Retaining Wall Drawings

Tighe & Bond will prepare draft and final plans, technical specifications, opinion of probable cost and operation and maintenance plan, for review by the Client. We will provide up to seven technical specifications necessary for the re-construction of the wall improvements. Our scope includes preparation of the following sections in the Construction Specifications Institute 1995 format:

- 02200 Site Preparation
- 02210 Subsurface Investigations
- 02225 Selective Demolition
- 02315 Excavation, Backfill, Compaction and Dewatering
- 02320 Borrow Materials
- 02921 Vegetative Support Material, Hydroseeding and Mulching



- 03100 Concrete Forms and Accessories, Cast-in-Place Concrete and Concrete Reinforcement

It should be noted that each of the specifications will include a section addressing Quality Assurance to be implemented during construction. We will provide a maximum of ten Drawing Sheets. The Contract Drawings will include the following sheets:

- Cover Sheet;
- General Notes and Legend;
- Existing Condition Plan and Profile and Site Preparation Plan (up to 2 sheets);
- Proposed Condition Plan (up to 2 sheets);
- Cross Sections;
- Details (up to 2 sheets);
- Structural Notes and Details.

The operation and maintenance plan will include the following sections:

- Vegetation management plan;
- Re-pointing of the stone-masonry wall veneer;
- Structural aspects of new concrete wall.

Plans and specifications will be delivered according to the following stages:

- **Kickoff Meeting** – Tighe & Bond, along with town, NRCS and CCCD representatives shall participate in a kickoff meeting to review the project objectives, survey plan, design process and requirements, schedule, and reviews and approvals.
- **New Survey** – Tighe & Bond will submit the new survey, integrated with the existing survey from the dam re-construction project, for review by the Town Fish Passage Specialist.
 - Prior to the 33% deliverable, the Town Fish Passage Specialist will review survey and assess whether changes are needed in the fishway passage near the retaining wall to be improved.
 - The Town Fish Passage Specialist will eventually prepare a conceptual design of the fishway passage (south) for Tighe & Bond to incorporate into the 33% design, if changes to the fishway passage to be incorporated in the retaining wall design are needed. Tighe & Bond will meet with the Town Fish Passage Specialist to discuss fishway improvements and preliminary wall design.
 - Tighe & Bond will prepare a separate contract amendment for additional design services to include the required retaining wall design based on the Town Fish Passage Specialist conceptual design, if modifications are needed.
- **33% Draft Plans** – Tighe & Bond will prepare preliminary design plans at the 33% level for review and comments by the Client. Tighe & Bond will conduct a conference call with the Client to present the 33% plans to discuss the design and address the Town's questions and comments.
- **67% Draft Plans** - Tighe & Bond will incorporate comments from the Client at the 33% level and will move forward with design. Tighe & Bond will provide updated plans for review at the 67% level and conduct a conference call to discuss the Town's questions and comments. This level of plans is considered suitable for permit application to be performed by the Town.



- **100% Plans and Specifications** - Tighe & Bond will incorporate comments from the Client and the permitting agencies from the 67% level for final plans and specifications. We will conduct a conference call to discuss the Town's final questions and comments. It is assumed that the permitting agencies will be in general agreement with our design and any revisions to address their permit conditions will be minor. Construction schedule, construction performance time and bid schedule will be evaluated after 100% plans are delivered with input from the Town.

Task 3.0: Project Coordination

Tighe & Bond's project manager will email the project team on a monthly basis with a project report that will include a bullet list with work completed since the previous report and the anticipated work to be performed the following month, to allow the team to follow progression.

SCHEDULE

Tighe & Bond will begin work on this project upon receipt of a Notice to Proceed and signed contract with the Town of Brewster. We anticipate the following schedule.

- Survey completed after 8 weeks from Notice to Proceed. Survey will be submitted for review by the Town Fish Passage Specialist to assess whether changes are needed in the fishway passage near the retaining wall to be improved.
- 33% Draft Plans – Submitted for review after 8 weeks from receipt of conceptual fishway passage from the Town Fish Passage Specialist and receipt of a contract amendment to fish passage modification design, if needed. 67% Draft Plans and Specifications – Submitted for review within 8 weeks of receipt of Town's comments to 33% design submittal.
- 100% Plans and Specifications - Completed 5 weeks after 67% level comments and Town acquired permits are received.

FEE

Tighe & Bond will perform the design services outlined above for a lump sum fee of \$42,700, invoiced monthly based on percentage complete. In the event that the scope of work is increased for any reason, the lump sum fee to complete the work shall be mutually revised by written amendment. The agreement for professional engineering services between the Town of Brewster and Tighe & Bond is part of this letter.



If this proposal is acceptable, please sign and return one copy of this letter proposal. We appreciate the opportunity to be working with the you on this important project. If you require additional information or have any questions, please do not hesitate to contact me at (508) 471-9645.

Very truly yours,

TIGHE & BOND, INC.



Christopher D. Haker, PE
Principal Engineer

ACCEPTANCE:

On behalf of the Town of Brewster the scope, fee, and terms of this proposal are hereby accepted.

Authorized Representative

Date

Enclosures: Terms and Conditions

\\tighebond.com\data\Data\Projects\B\B5078 Brewster Grist Mill Wall\Lower Mill Pond Retaining Wall.doc



Application for Federal Assistance SF-424	
* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	
* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	
* If Revision, select appropriate letter(s): _____ * Other (Specify): _____	
* 3. Date Received: _____	4. Applicant Identifier: _____
5a. Federal Entity Identifier: _____	5b. Federal Award Identifier: _____
State Use Only:	
6. Date Received by State: _____	7. State Application Identifier: _____
8. APPLICANT INFORMATION:	
* a. Legal Name: Town of Brewster, Massachusetts	
* b. Employer/Taxpayer Identification Number (EIN/TIN): 096-001-098	* c. Organizational DUNS: _____
d. Address:	
* Street1: 2198 Main Street	_____
Street2:	_____
* City: Brewster	_____
County/Parish:	_____
* State: MA: Massachusetts	_____
Province:	_____
* Country: USA: UNITED STATES	_____
* Zip / Postal Code: 02631-1852	_____
e. Organizational Unit:	
Department Name: _____	Division Name: _____
f. Name and contact information of person to be contacted on matters involving this application:	
Prefix: _____	* First Name: Peter
Middle Name: _____	
* Last Name: Lombardi	
Suffix: _____	
Title: Town Administrator	
Organizational Affiliation: _____	
* Telephone Number: 5088963701	Fax Number: _____
* Email: plombardi@brewster-ma.gov	

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

USDA Natural Resources Conservation Service

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

*** 12. Funding Opportunity Number:**

N/A

* Title:

N/A

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Stoney Brook Fish Ladder

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal

* b. Applicant

* c. State

* d. Local

* e. Other

* f. Program Income

* g. TOTAL

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

a. This application was made available to the State under the Executive Order 12372 Process for review on

b. Program is subject to E.O. 12372 but has not been selected by the State for review.

c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

Yes

No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:

* First Name:

Peter

Middle Name:

* Last Name:

Lombardi

Suffix:

* Title:

Town Administrator

* Telephone Number:

5088963701

Fax Number:

* Email:

plombardi@brewster-ma.gov

* Signature of Authorized Representative:



* Date Signed:

07/24/2020

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

*** APPLICANT'S ORGANIZATION**

Town of Brewster, Massachusetts

*** PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE**

Prefix: * First Name: Peter Middle Name:

* Last Name: Lombardi Suffix:

* Title: Town Administrator

*** SIGNATURE:**



*** DATE:** 07/24/2020

ASSURANCES - CONSTRUCTION PROGRAMS

OMB Number: 4040-0009
Expiration Date: 02/28/2022

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.


PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards of merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
20. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 	TITLE Town Administrator
APPLICANT ORGANIZATION Town of Brewster, Massachusetts	DATE SUBMITTED 07/24/2020



Town of Brewster

2198 Main Street
Brewster, MA 02631-1898
Phone: (508) 896-3701
Fax: (508) 896-8089

Office of:
Select Board
Town Administrator

December 15, 2020

Ms. Faythe Ellis, Chair
Community Preservation Committee
Brewster Town Hall
2198 Main Street
Brewster, MA. 02631

Chair Ellis,

Please accept this letter of support for funding for the Stoney Brook Mill Retaining Wall project submitted under the Historic Community Preservation category.

The unique industrial heritage of Stony Brook/Factory Village has been preserved by the Town of Brewster as the Stony [sic] Brook Mill Sites. Set aside in 1940 for public use and enjoyment, this historic property is focused on Stony Brook, and encompasses land on its east and west banks, both north and south of Stony Brook Road. Since its purchase in 1940, limited improvements to enhance public access, safety, and interpretation have been made. They include clearing underbrush, laying out unpaved footpaths, constructing wooden footbridges, adding a small surface parking lot and picnic benches, restoring the grist mill building, restoring the Mill Site dam, and erecting a few small interpretative signs and plaques.

Stony Brook/Factory Village also represents one of the earliest conscious acts of historic preservation in Barnstable County. Its historical significance and special sense of place was recognized in the late-1930s by a broad-based coalition that included local citizens and officials, property owners, and the Cape Cod Chamber of Commerce. Through their efforts, the "Old Grist Mill" and lands immediately adjacent to Stony Brook were purchased by, or donated to, the town for use as a museum and cultural/recreational site.

The entire Stony Brook/Factory Village area was included within the Old King's Highway Regional Historic District in 1973, and has been subject to design review since 1975. Together, those two early preservation efforts, have helped Stony Brook/Factory Village to survive as the region's best preserved historic industrial village, and to maintain an unusually high degree of historic integrity of location, design, setting, materials, workmanship, feeling, and associations. The Mill Site was nominated to the National Registry of Historic Places in May of 2000.

The Retaining Wall project aims to preserve and restore the existing stone retaining walls that form the boundary of the Stony Brook channel. The existing loose laid stone retaining walls are showing signs of collapse and erosion of the materials behind the walls. The walls also supports the headrace pond that is used to power the mill wheel.

The project aims to reconstruct a properly engineered retaining wall that would then be faced with the existing stones to preserving the historic character of the site. The goal is to not show any concrete and to retain the historic look of the walls.

The Brewster Natural Resources Department has obtained grant funds to perform the engineering design and for the majority of the construction costs. We urge you to provide Community Preservation Funding to assist with final permitting and local match to the federal construction grant.

Sincerely,

A handwritten signature in black ink, appearing to read "Mary Chaffee", written over a vertical line.

Mary Chaffee, Chair
Brewster Select Board

TITLE	CPC Letter of Support: Millsites Wall Reconstruction
FILE NAME	Draft Letter of S...tion Project.docx
DOCUMENT ID	d01ba9bb71f328af398656d156a9a7cb5c7f56ac
AUDIT TRAIL DATE FORMAT	MM / DD / YYYY
STATUS	● Completed

Document History



SENT

12 / 15 / 2020

14:15:09 UTC

Sent for signature to Mary Chaffee
 (mchaffee@brewster-ma.gov) from ryoung@brewster-ma.gov
 IP: 131.109.131.20



VIEWED

12 / 15 / 2020

14:15:59 UTC

Viewed by Mary Chaffee (mchaffee@brewster-ma.gov)
 IP: 73.227.44.169



SIGNED

12 / 15 / 2020

15:58:43 UTC

Signed by Mary Chaffee (mchaffee@brewster-ma.gov)
 IP: 73.227.44.169



COMPLETED

12 / 15 / 2020

15:58:43 UTC

The document has been completed.