



Pickpocket Dam Removal

River Advisory Committee Project Update #4

July 16, 2026

Paul Vlasich, PE

Exeter - Project Manager

Stephanie Hudock, PE

VHB – Project Manager



Project Funding

This project is supported by the Great Bay 2030 partnership, which is funded by the New Hampshire Charitable Foundation.



NEW HAMPSHIRE
CHARITABLE FOUNDATION

Agenda



Completed Tasks



Ongoing Work



Schedule & Next Steps



Questions

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- SB FND STONE BOUND FOUND
DH FND DRILL HOLE FOUND
IR FND IRON ROD FOUND
- ☛ WATER GATE
☛ STREET SIGN
☛ LIGHT POLE
☛ UTILITY POLE
☛ GUY POLE
☛ GUY WIRE
☛ MAILBOX
☛ WELL
☛ TEST PROBE
- 5' K 12% TEST
- 8" TREE DECADEOUS TREE
WITH SIZE
- 6" TREE CONIFEROUS TREE
WITH SIZE
- 1/2" EDGE OF PAVEMENT
QUADRANT
- CHAIN LINK FENCE
OVERHEAD WIRE
STONE WALL
TREE LINE
TOP OF BANK

**Pickpocket Dam
Removal and Exeter
River Restoration**
Cross Road & Pickpocket Road
Exeter and Brentwood, New Hampshire

[illegible]

April 15, 2026

Not Approved for Construction

Existing Dam Survey
Pickpocket Dam

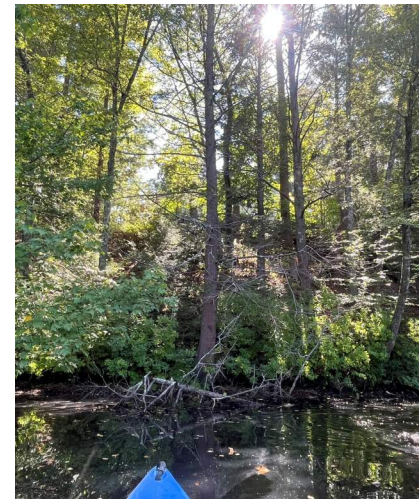
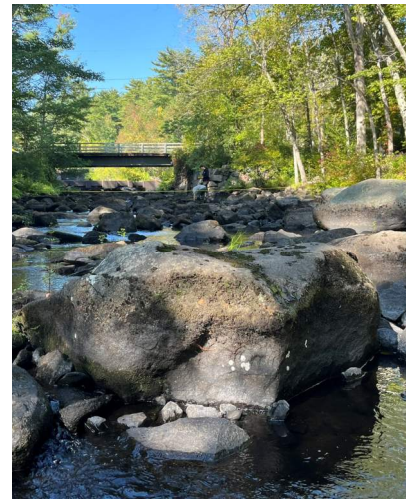
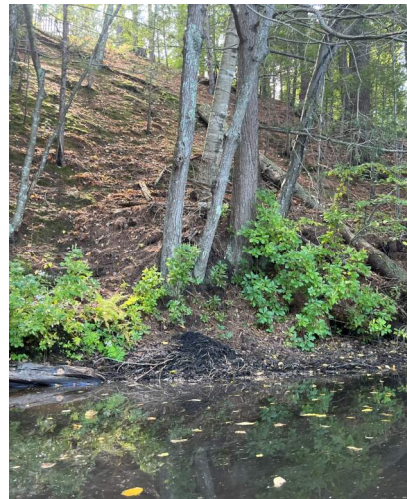
Customer Number

Sv-2

2 of 3
Project Number
52151.09

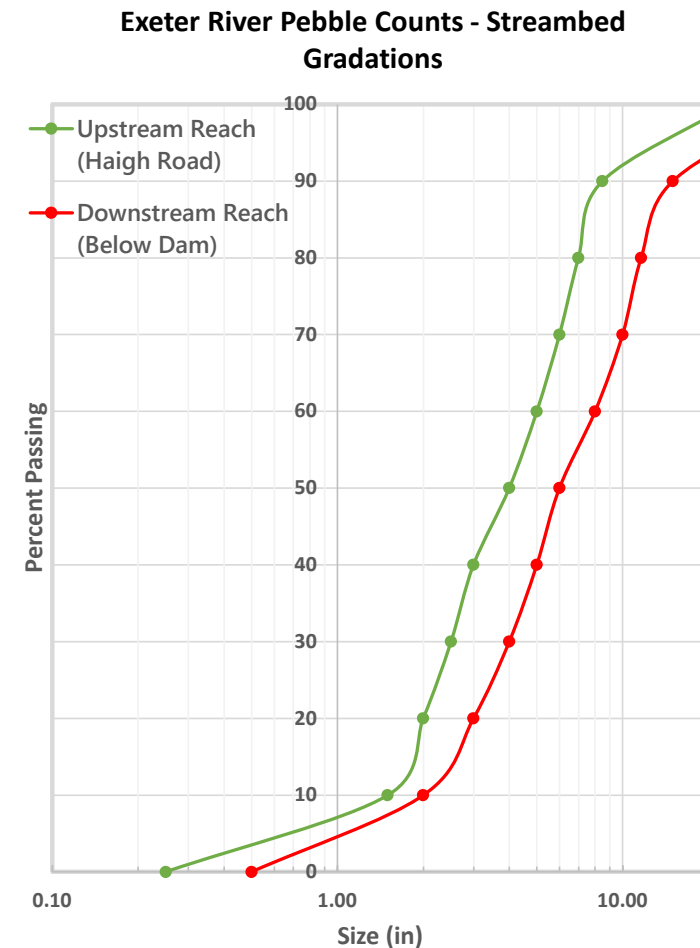
Site Visit

- Reference reach analysis @ downstream of Cross Rd & Haigh Road
 - Channel geometry
 - Pebble count
- Kayak investigation of Stoney Water Road Slope



Streambed Gradation

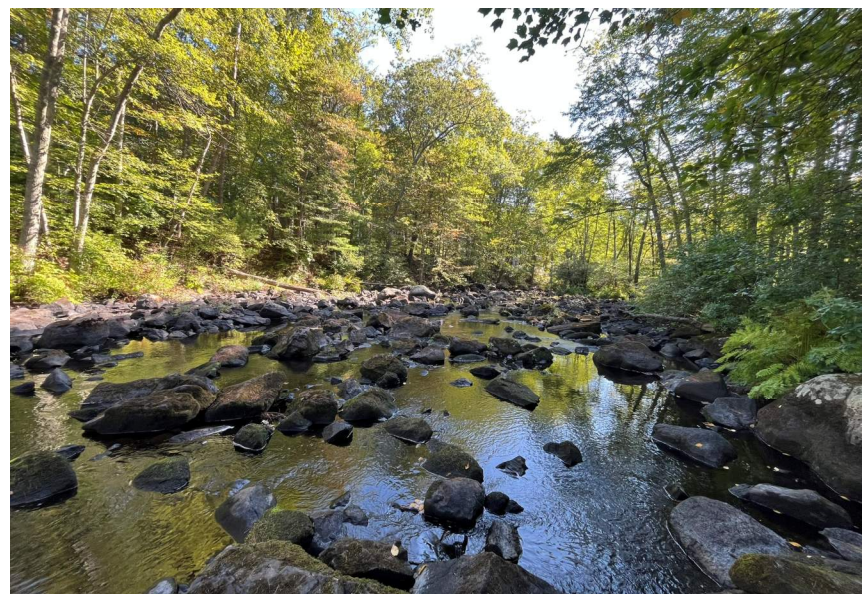
- Pebble Counts were performed below Pickpocket Dam and upstream of the Haigh Road bridge
- Large boulders and bedrock outcrops were noted downstream of the dam
- Smaller boulders and a smaller gradation overall was observed in the Haigh Road reach
- Median pebble size was 6" below the dam and 4" at Haigh Road



Probing Investigation

- Conducted sediment probing in October
- Completed probes along proposed horizontal alignment to verify that the design vertical depth could be achieved
- Low flow conditions allowed probing in close proximity to the dam
- Results confirmed that the depth is achievable





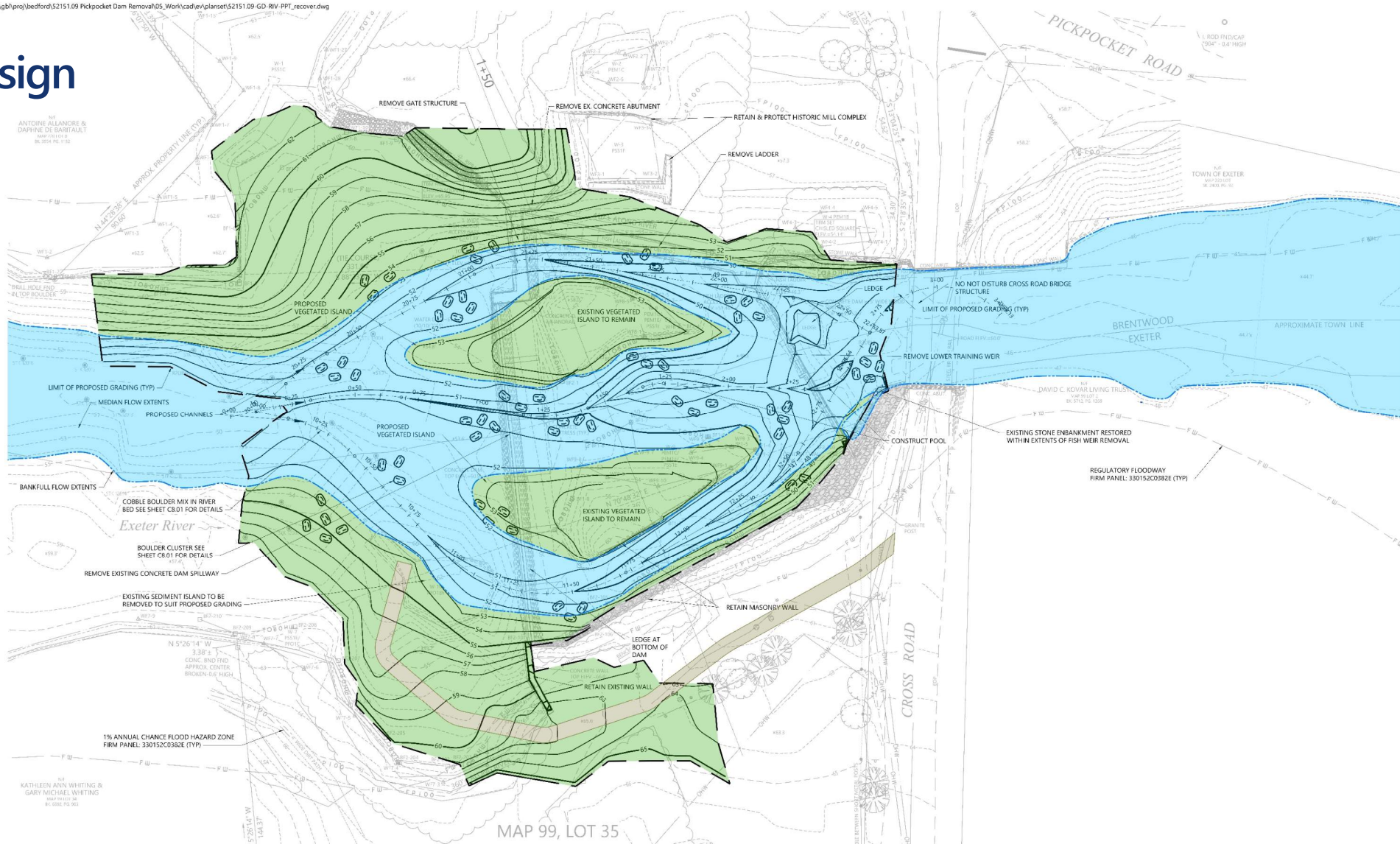
Fish Passage Design

Design Criteria - Alewife

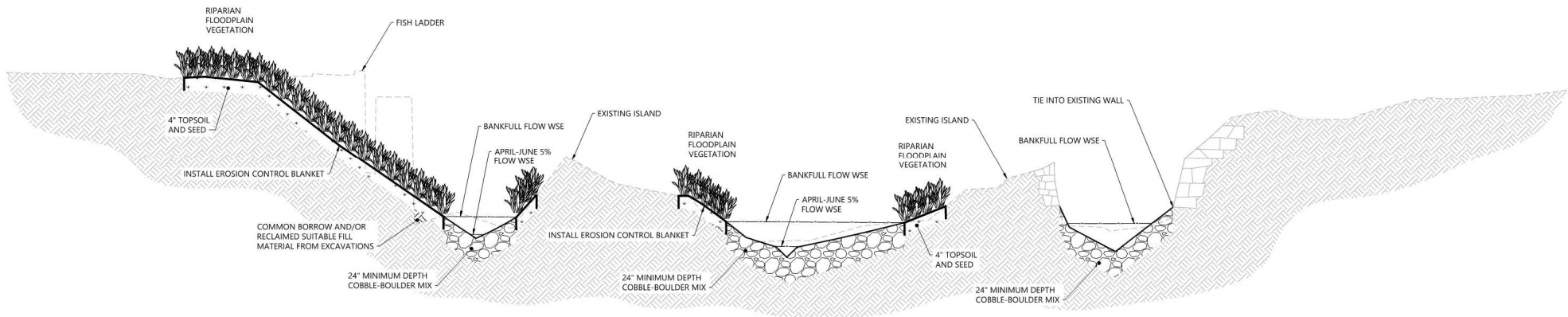
- Criteria are based on species body morphology, swimming ability, behavior, and hydraulics
- Maximum slope of 5%
- 1-2 ft/s sustained swimming
- 2-4 ft/s prolonged swimming
- Minimum depth of 6 inches
- Minimum pool spacing of 10 feet
- Minimum pool depth of 2.25 feet

	Apr-June Q5	Apr-June Q95	Median	Bankfull
Flow (ft ³)	17.1	427.4	66.1	504.3
Pool Depth (ft)	2.6	4.9	3.3	5
Pool Velocity (ft ²)	0.8	1.28	1.61	1.47
Channel Depth (ft)	0.5	1.87	0.9	2.1
Channel Velocity (ft ²)	2.85	4.84	2.25	4.85

Design



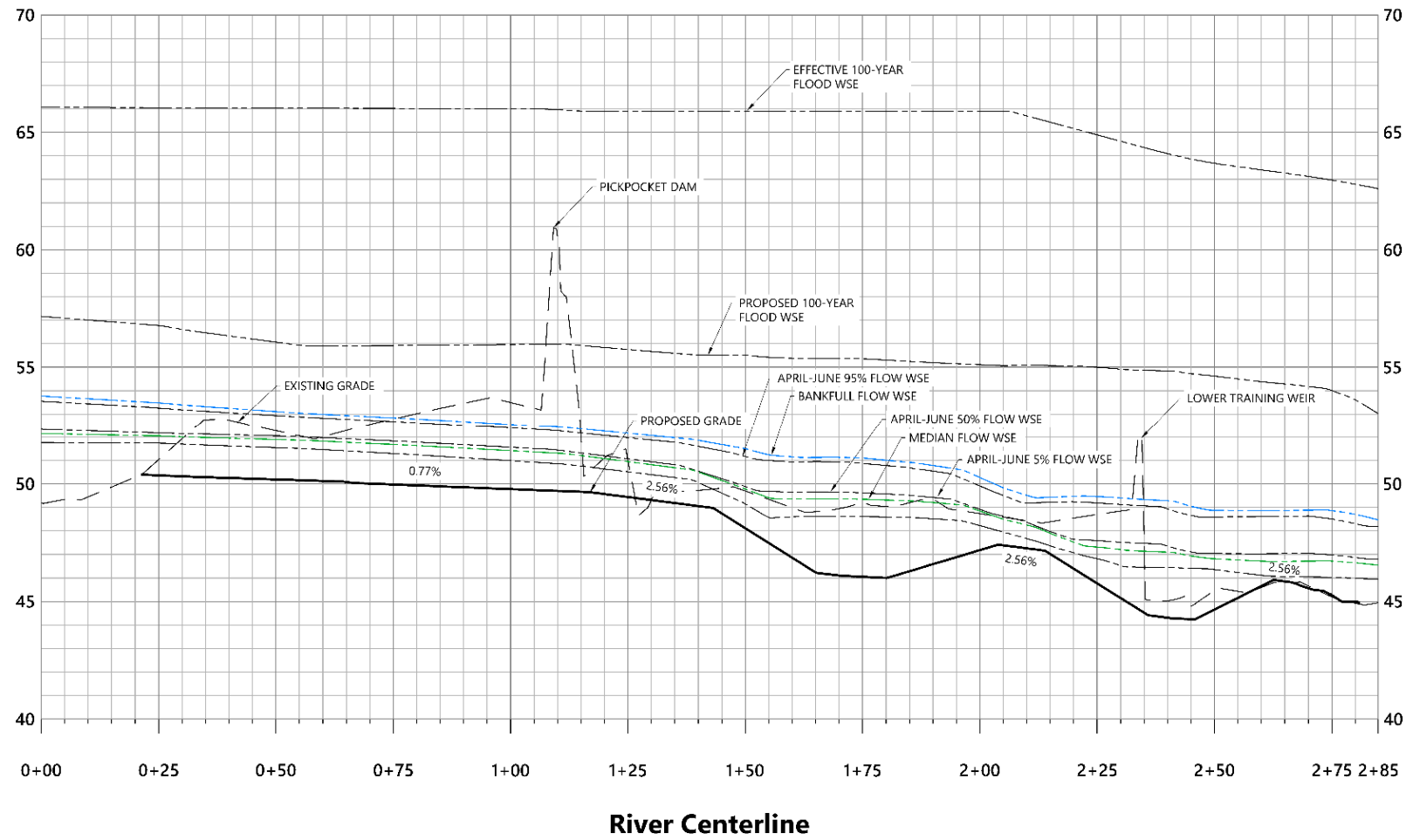
Typical Cross Section



TYPICAL SECTION (STA 1+50)

NTS

Channel Profile



Cultural Resources

- Submitted Request for Project Review (RPR) in September 2025
- Dam determined eligible for listing
- Dam removal would result in an *Adverse Effect* (October 13, 2025)
- NHDHR Requires Phase IB Archaeological Investigation
 - Phase IB Archaeological field work completed
- Development of Memorandum of Agreement to stipulate historic mitigation (next phase)

Continuation Sheets
Restoration of the Exeter River Herring Run through Removal of the Pickpocket Dam

Continuation Sheets Request for Project Review by the New Hampshire Division of Historical Resources

Restoration of the Exeter River Herring Run through Removal of the Pickpocket Dam,
Exeter, NH

September 2025

A. Project Boundaries and Description

Project Description

On behalf of the Town of Exeter, VHB is providing project information in support of a Request for Project Review (RPR) for the removal of the Pickpocket Dam and restoration of the Exeter River Herring Run ("Project"). The Pickpocket Dam (NHDES Dam No. NH00294) is located within the Exeter River along the municipal boundary between the towns of Exeter and Brentwood, NH. (the "Site"). After extensive evaluation, the Town has decided that removing the dam is the best solution to address deficiencies, improve fish habitat, and resolve water quality, flooding, and safety issues. The project involves removing the entire dam structure, including the fish ladder and training weir, and reshaping approximately 500 linear feet of the river channel to ensure a stable streambed for better fish passage.

The Site is identified as Brentwood Parcel 6 on Tax Map 220 (on the north side of the Exeter River) and Exeter Parcel 35 on Tax Map 99 (on the south side of the river) and is wholly owned by the Town of Exeter. In total, the Site encompasses approximately 0.2 acres.

Refer to **Figure 1 USGS Site Location Map** and **Figure 2, Aerial/Photo Location Map**.

Existing Conditions

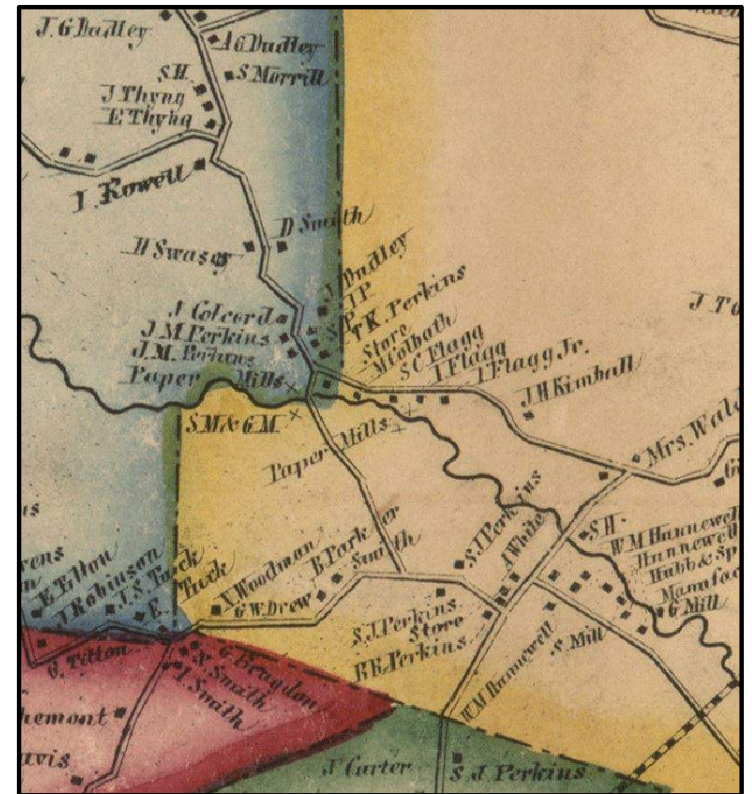
The Project area is located within the Exeter River, along the municipal boundary between the towns of Exeter and Brentwood, NH. Pickpocket Road runs along the northern boundary of the parcel. Residential properties are north and south of the Project area. The Cross Road Bridge is just downstream of the dam and forms the eastern boundary of the Project area. Presently, the area is maintained by the Towns of Exeter and Brentwood for public recreational use.

The Site is identified as Brentwood Parcel 6 on Tax Map 220 (on the north side of the Exeter River) and Exeter Parcel 35 on Tax Map 99 (on the south side of the river). The property is zoned as "Residential, Single-Family" and is owned by the Town of Exeter. In total, the Project Site encompasses approximately 0.2 acres and is bordered by Pickpocket Road and residential properties to the north, a private residential property to the south and the Cross Road Bridge to the east. Refer to **Figure 1 USGS Site Location Map**.

The Pickpocket Dam is a run-of-river, earth embankment dam with a concrete spillway with end walls on the Exeter River where it flows through the towns of Exeter and Brentwood, New Hampshire, prior to its

Phase IB Archeological Investigation

- IAC performed shovel test pits across the site
- Findings from the Phase 1A evaluation were confirmed through field investigations
- The project area was confirmed to be archaeologically complex
- Field work identified both pre-contact and post-contact deposits
- Findings resulted in minor modifications to the design and construction phasing to avoid impacts
- Evaluating need for Phase II Determination of Eligibility

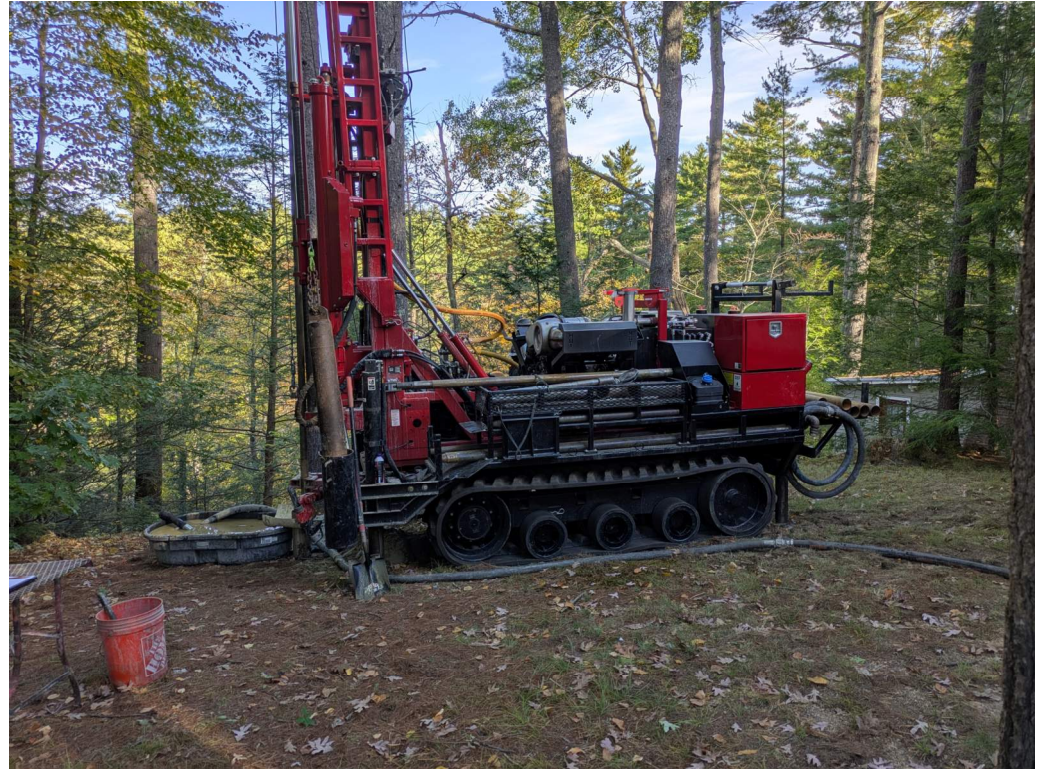


Public Engagement



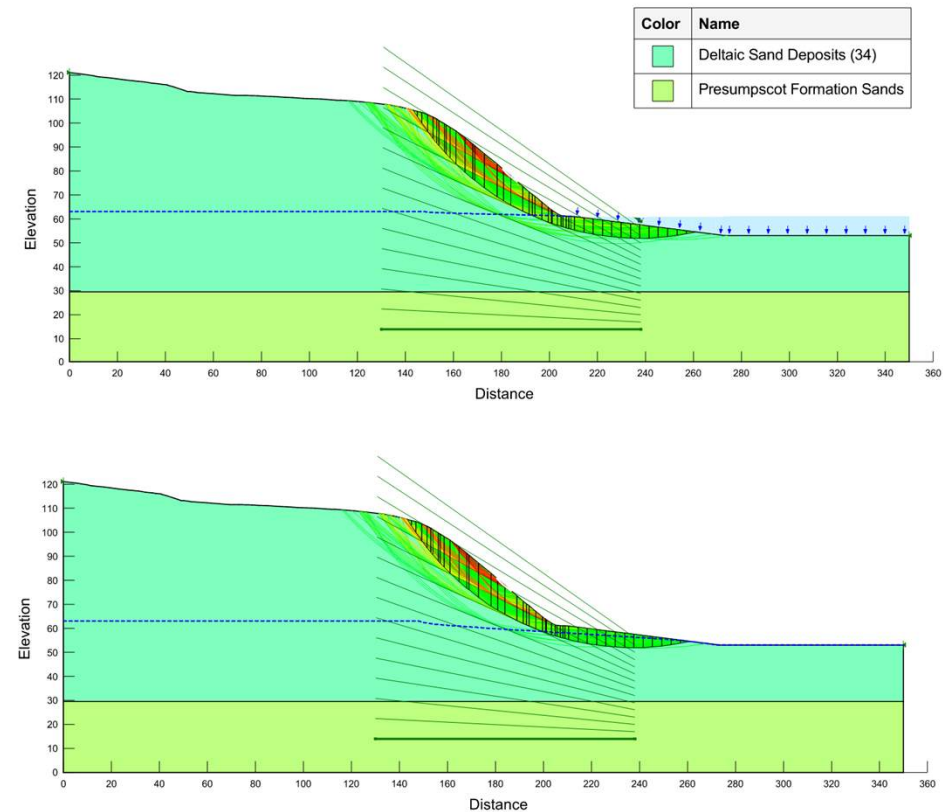
Subsurface Exploration

- Single 81' geotechnical boring from ground surface to ~35' below typical impoundment elevation
- Groundwater found 5' above impoundment
- 77' of Deltaic Sand Deposits (Medium dense clean sands)
- Overlying Presumpscot Formation Sands (very dense clean sands)
- Bedrock not encountered

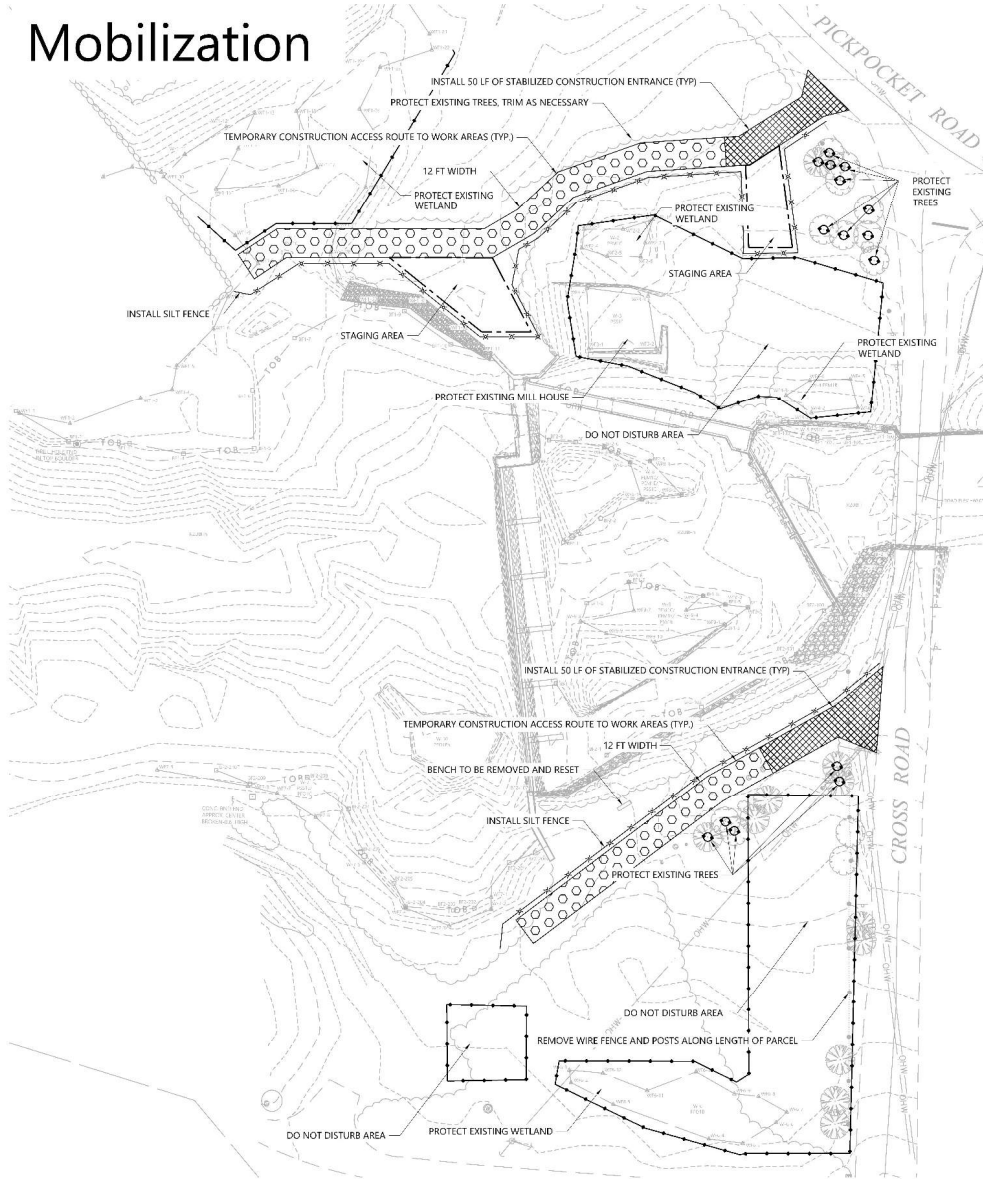


Slope Stability

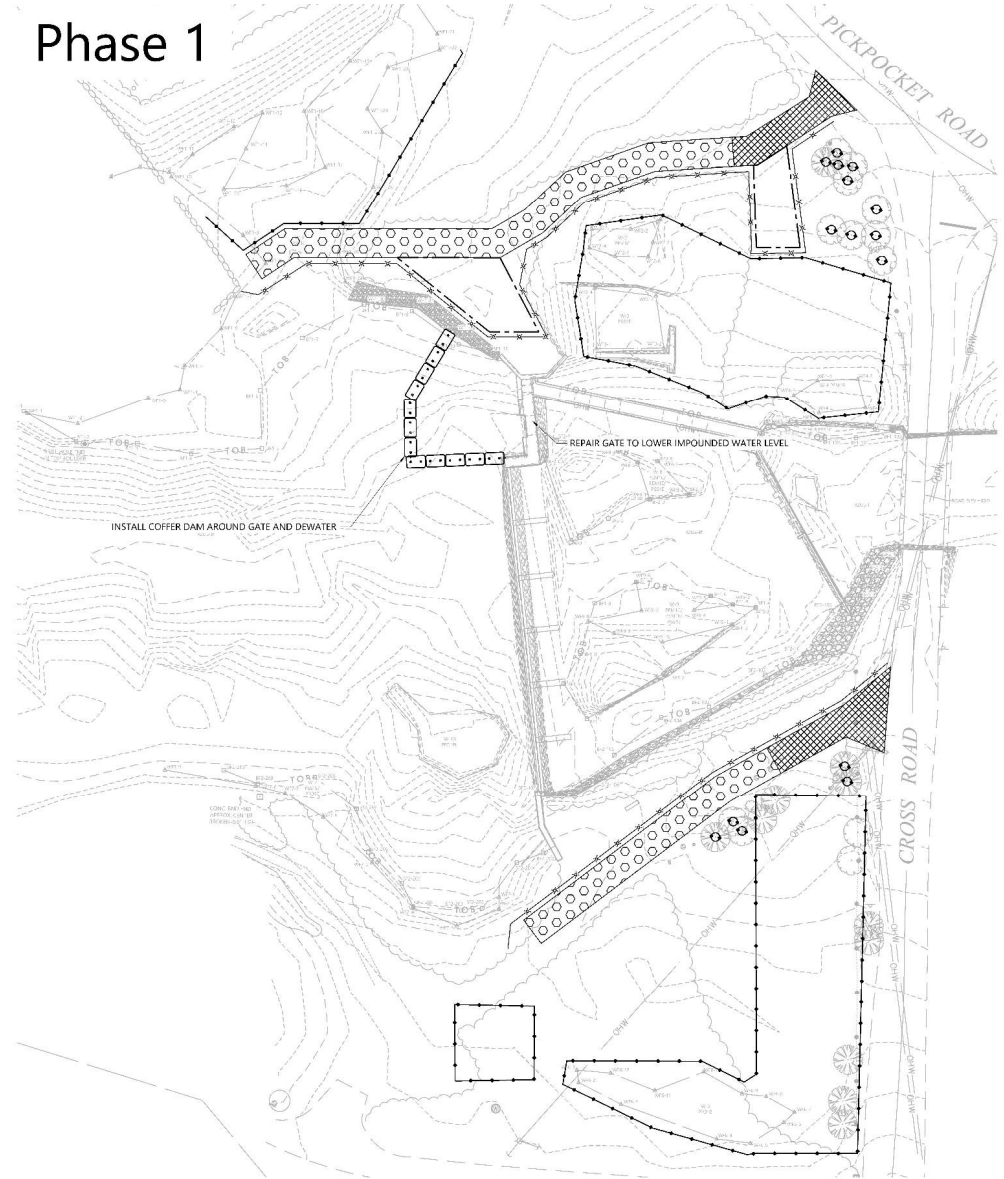
- GeoStudio SlopeW model developed using slope geometry and soil parameters
- Evaluated both critical slip surface and groundwater intersecting slip surface under existing and dam removal conditions
- No change in critical slope stability following dam removal
- Marginal improvement in GW intersecting slip surface
- Met with adjacent landowners to discuss findings



Mobilization



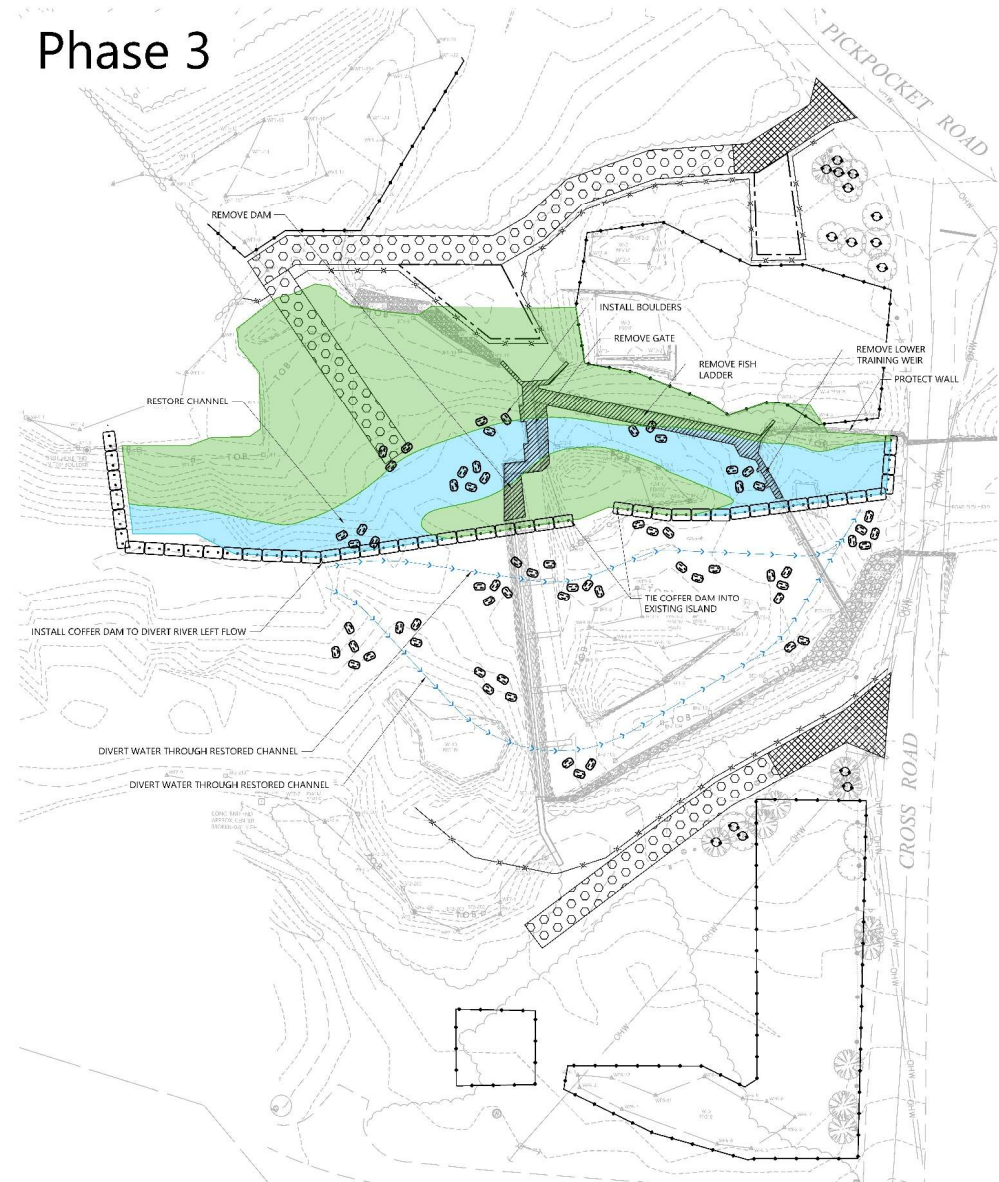
Phase 1



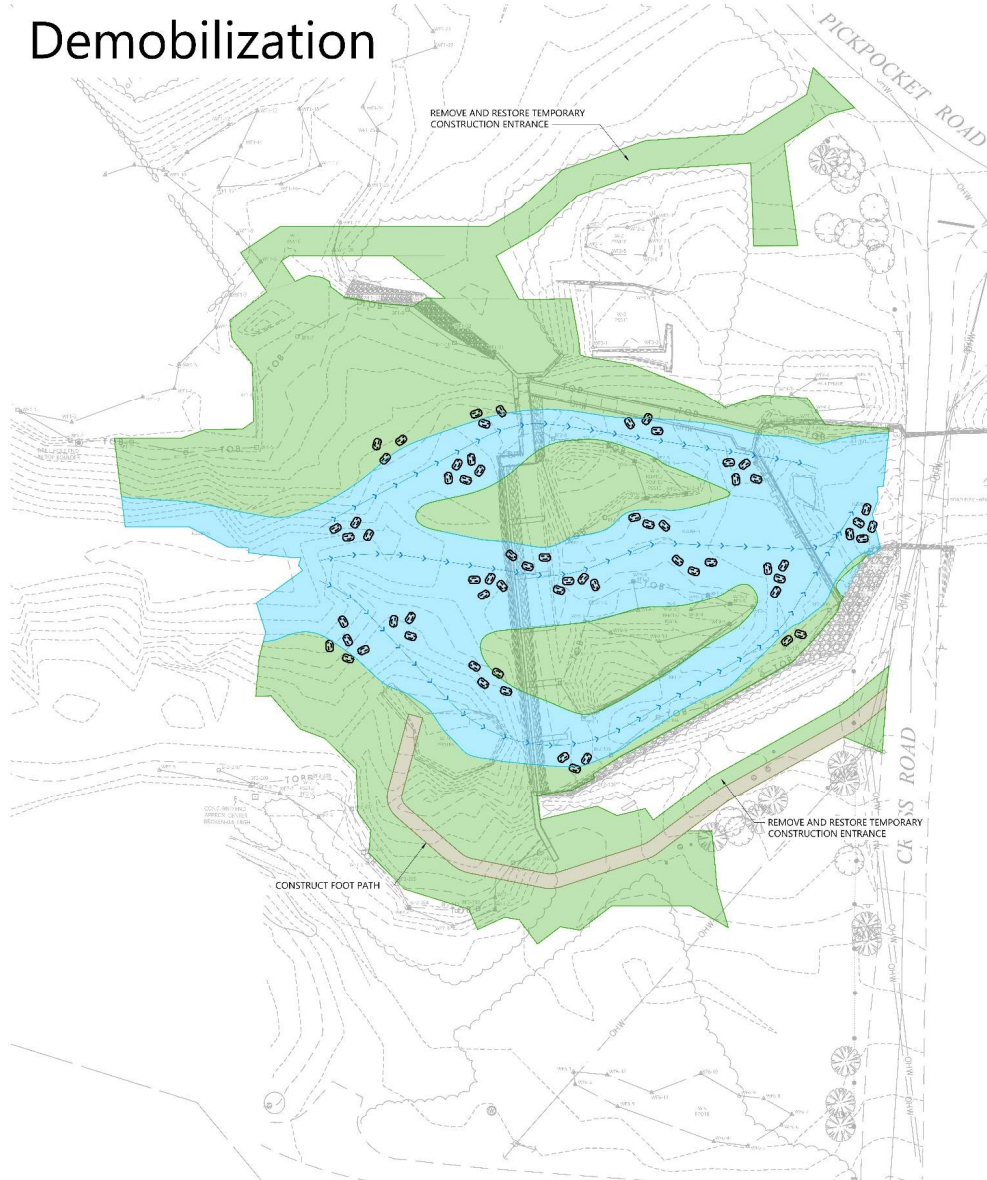
Phase 2



Phase 3



Demobilization



Great Bay 2030

- Provided project progress update to the NH Charitable Foundation in April
- Grant Deadline April 2027
- Anticipated Phase 1 Completion August 2026
- Project budget 80% spent of \$300,000



Schedule & Next Steps

#	Task	2025						2026							
		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	Topographic Survey														
2	Wetland Delineation			★											
3	Geotechnical Investigation											★			
4	30% Design										★				
5	60% Design														★
6	Environmental Permitting														★
7	Cultural Resources											★		★	
8	Public Engagement				★	★							★		★

★ Project Milestones
 Project Tracking

- August– Abutters Public Engagement Event
- July 16, 2026 – Present final phase 1 project update at Town of Exeter River Advisory Committee Meeting
- August– Completion of Final 60% Design Plans

Questions?

