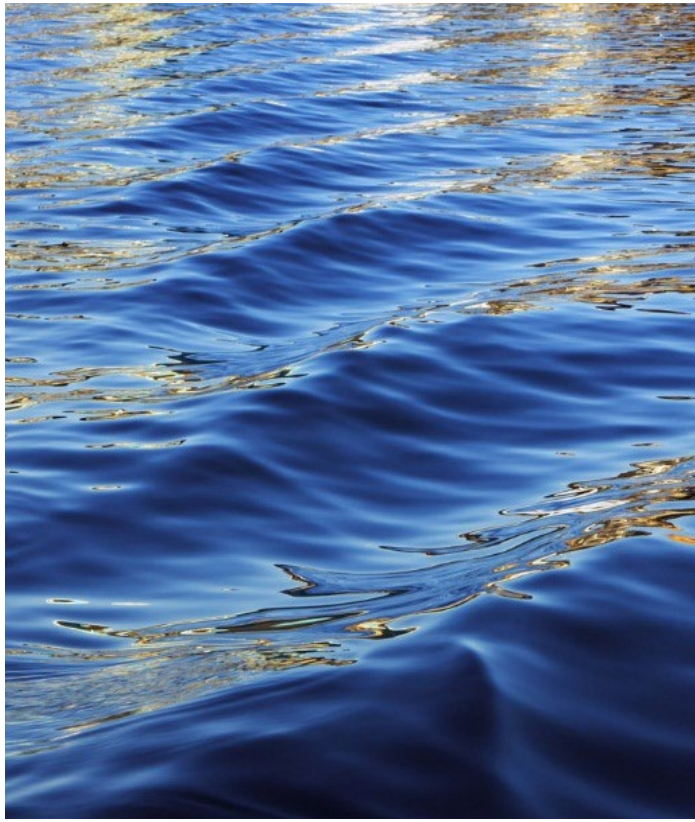
Cole's Mill Dam Public Meeting

July 31, 2024

Natural Resource Trustees – NJDEP, NOAA, USFWS
Raritan Headwaters Association
Princeton Hydro

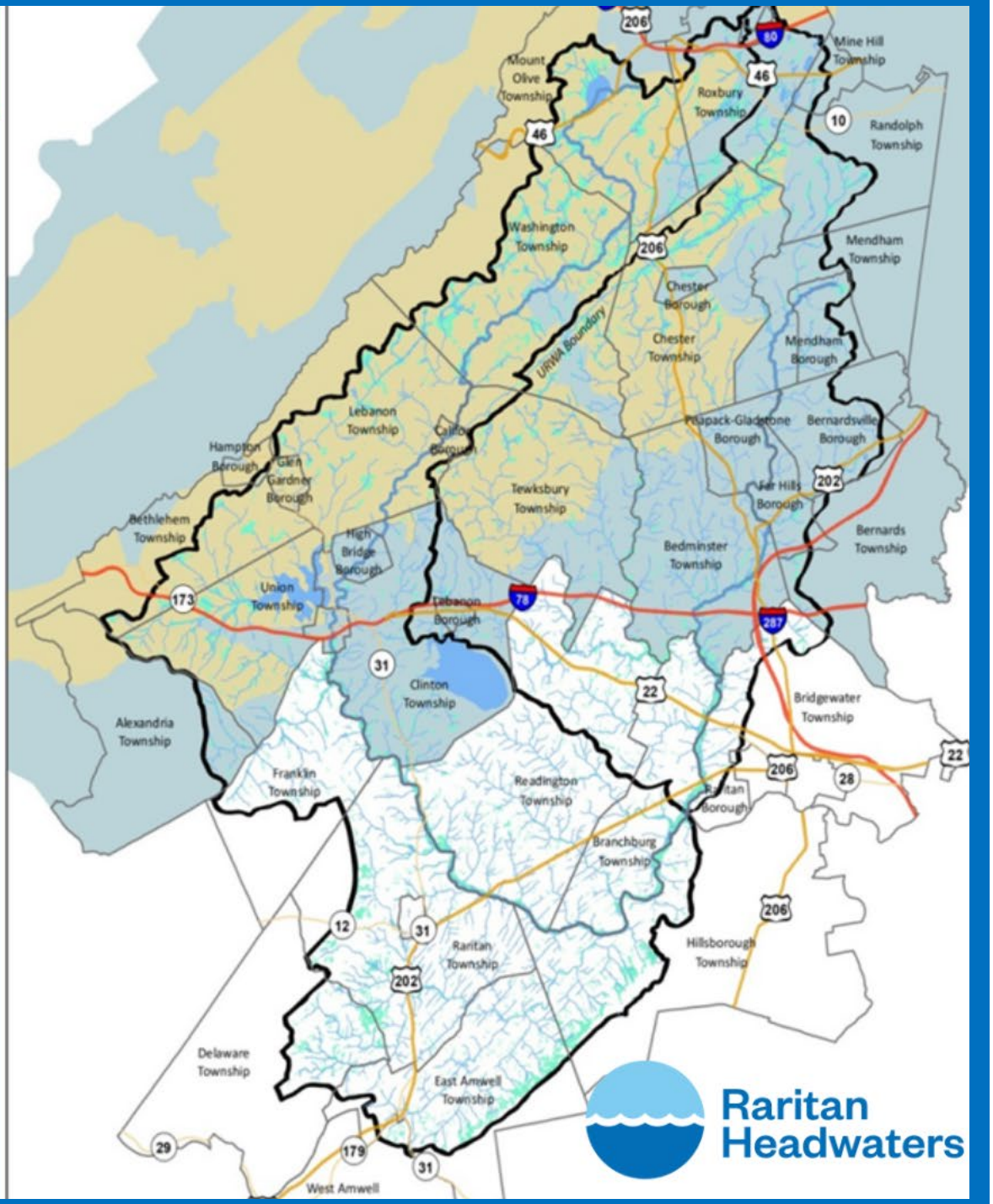


Who are we?

- Raritan Headwaters Association
- Natural Resource Trustees for the Cornell-Dubilier Electronics (CDE) Superfund Site
  - National Oceanic and Atmospheric Administration (NOAA)
  - New Jersey Department of Environmental Protection (NJDEP)
  - U.S. Fish and Wildlife Service (USFWS)
- Princeton Hydro

North & South Branch Raritan River Region

- 470 square miles: 43% of the Raritan River Basin
- 3 Counties: Hunterdon, Somerset & Morris - includes 38 municipalities
- Home to nearly 300,000 people
- 34% Urban, 22% Ag, 45% Forest & Wetland
- Over 1,404 miles of rivers and streams provide drinking water to more than 1.5 million citizens living downstream
- Part of the Highlands Water Supply
- Contains 2 of NJ's largest reservoirs, Spruce Run and Round Valley



Raritan Headwaters

To learn more about RHA, visit
www.raritanheadwaters.org

Science

We monitor the health of surface water and groundwater, plants, and animals in the region to identify trends, discover problem areas, and measure the success of our programs.

Education

We craft education programs about water, wildlife conservation, and responsible stewardship practices for children of all ages, teachers, municipalities, home/landowners, and visitors.

Advocacy

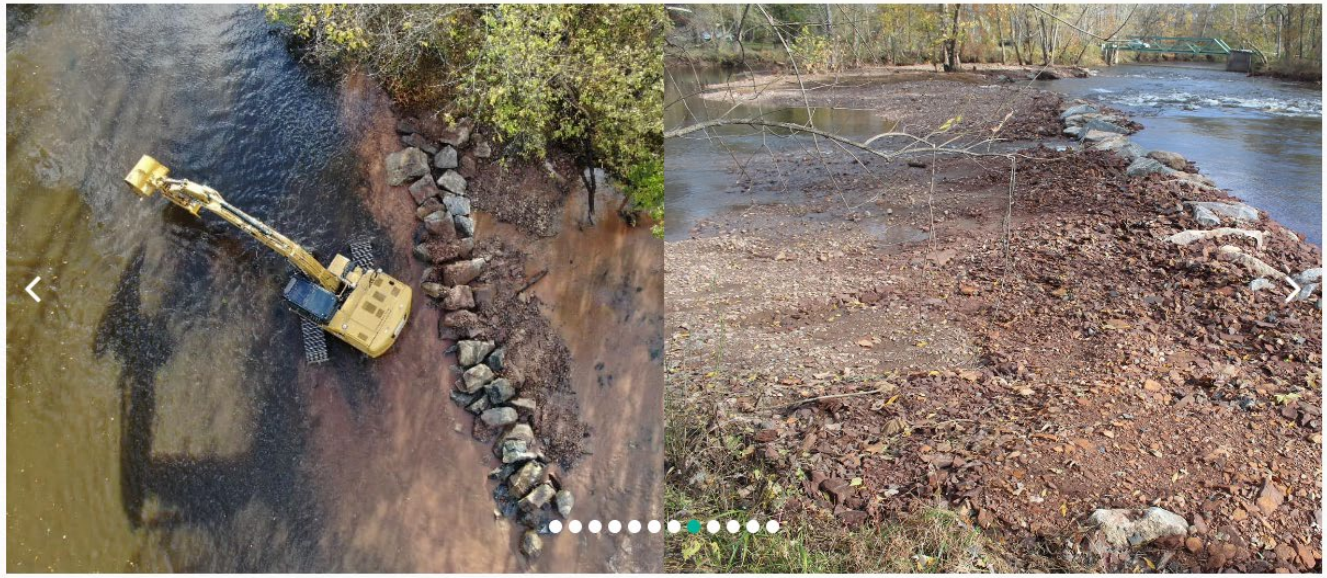
As The Watershed Watchdog, we identify key water-related issues at all levels of government. We educate politicians to ensure they understand the environmental ramifications of the decisions before them. We also alert our membership to actions they can take to protect their water and environment.

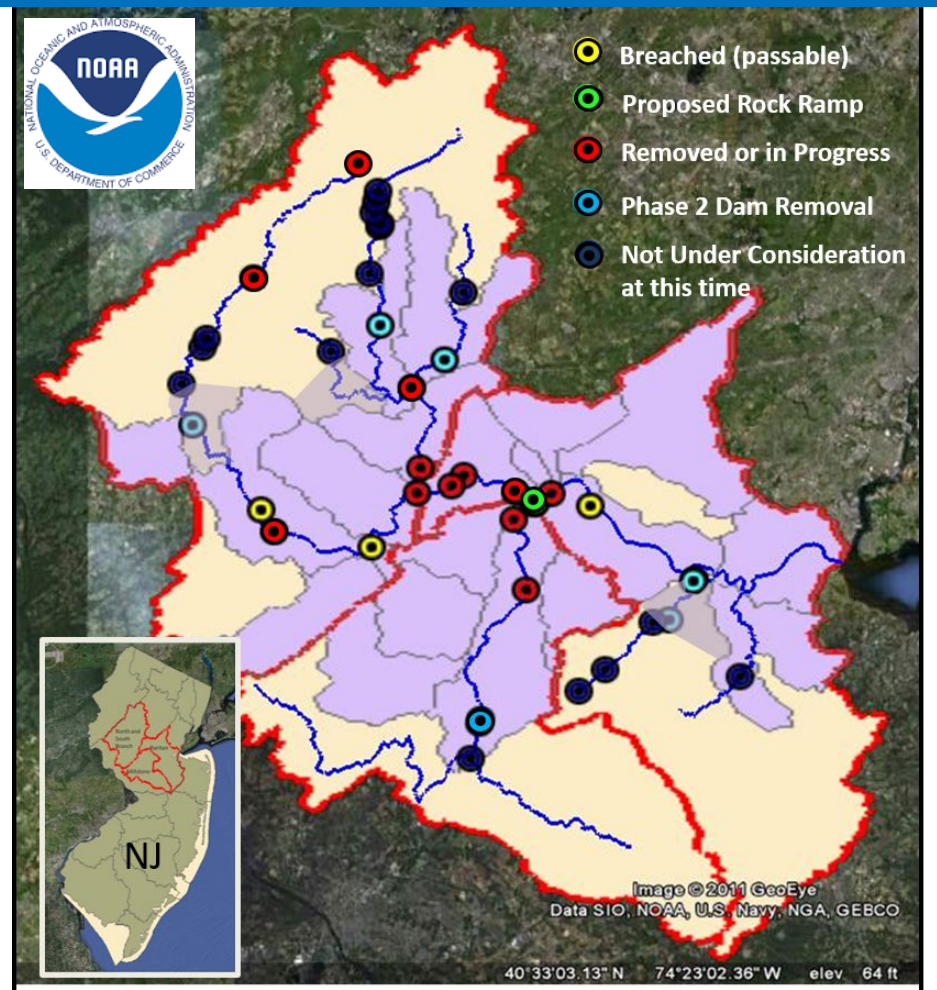
Preservation & Stewardship

Our cleanup program engages hundreds of volunteers to remove tons of trash every year from our streams. We help preserve land with our partners. We manage our preserved lands using nationally recognized best management practices. Accredited through the Land Trust Alliance 2018.

ACCREDITED™ LAND TRUST ACCREDITATION COMMISSION

Burnt Mills Dam Removal





Removed or in progress

1. Manville Weir REMOVED 2010
2. Calco Dam REMOVED 2011
3. Roberts Street Dam REMOVED 2012
3. Nevius Street Dam REMOVED 2013
4. Weston Mill Dam REMOVED 2017
5. Burnt Mills Dam REMOVED 2018
6. Head Gates IN PROGRESS 2024
7. Coles Mill Dam IN PROGRESS 2024
8. Nunn's Mill Dam IN PROGRESS 2024
9. Rockafellow Mills Dam IN PROGRESS 2025
10. Island Farm Weir Rock Ramp in design 2025

The 1000 square mile Raritan Watershed

Historic Range of Anadromous Species

RARITAN RIVER FISH PASSAGE INITIATIVE

Cornell-Dubilier Electronics Superfund Site
Natural Resource Trustees

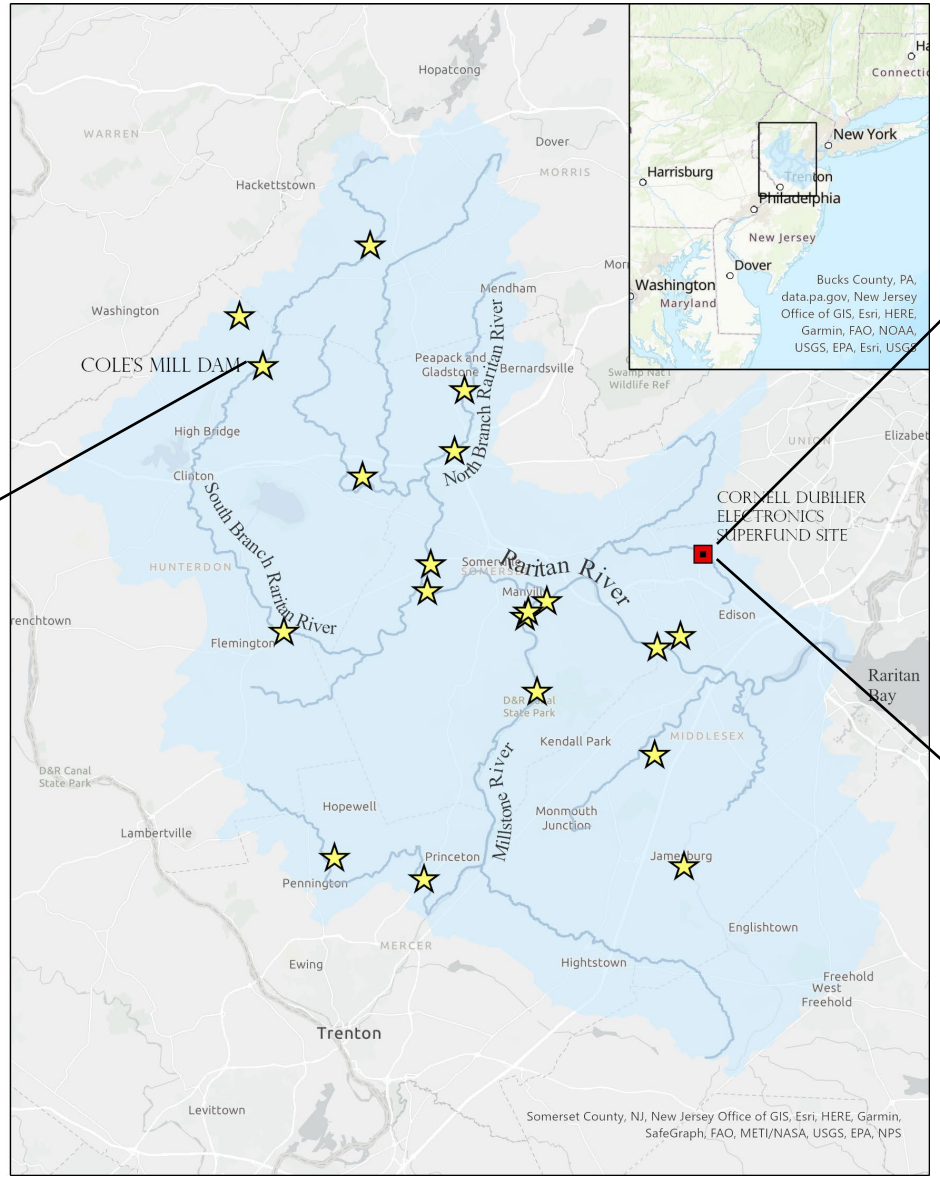


Image Sources: USFWS, NOAA, enh.org, NOAA

Why Dam Removal?

- Many dams in NJ no longer serve their original function and are expensive to fix/repair
- Old dams often become a public safety hazard and liability for dam owner
- Dams are barriers to the movement of fish and other aquatic organisms
- Water quality is often degraded upstream and downstream of dams, creating unsuitable habitat
- Ecological uplift potential is great
  - Restores river and aquatic connectivity
  - Improves floodplain habitat and function

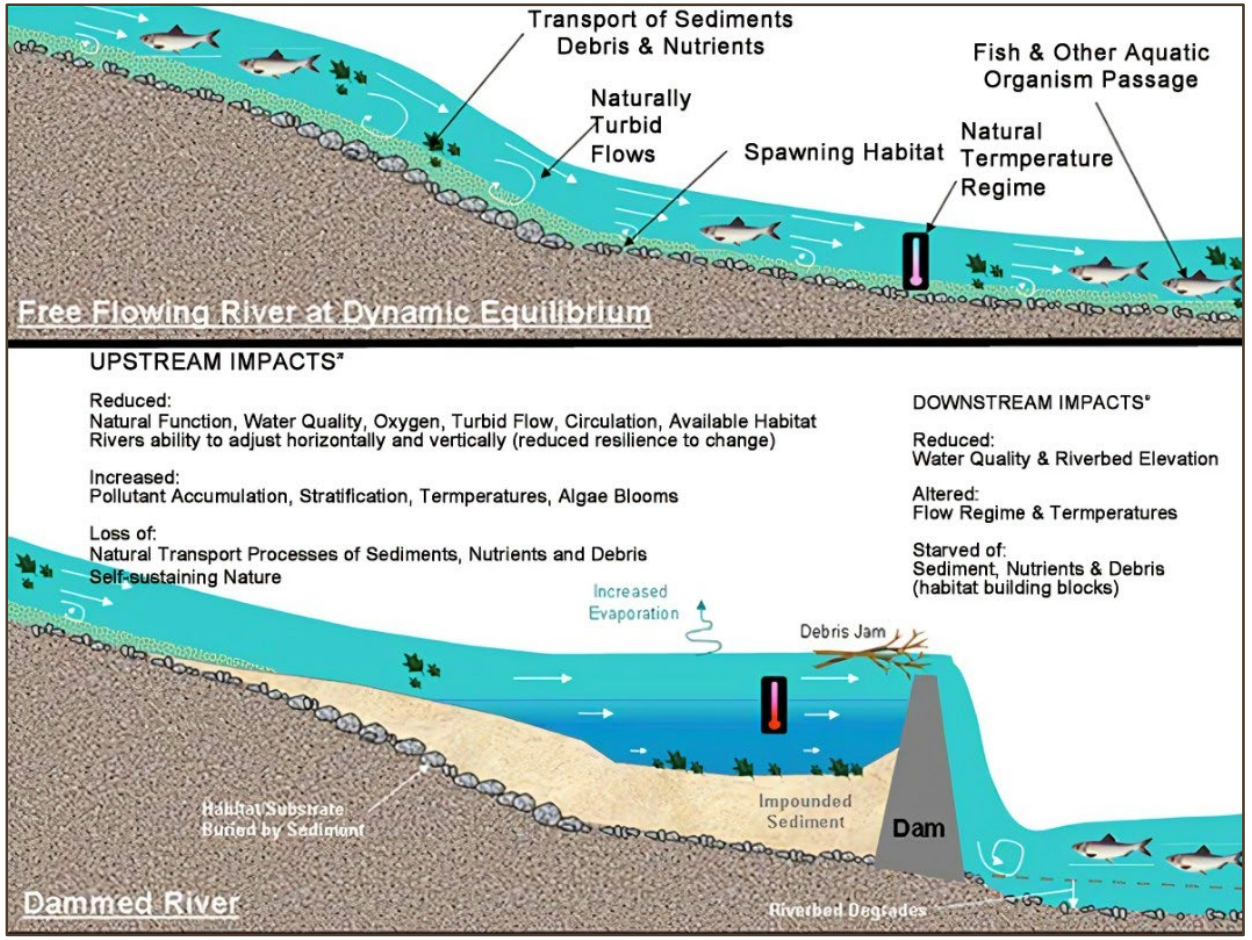


Image Source: University of Southern Maine

Image Sources: USFWS

Feasibility Study and Design

Technical Studies

- Desktop Review
- Field Investigations
- Structural Assessment

Design and Engineering

- Feasibility Report
- Conceptual Design
- Engineering Plans

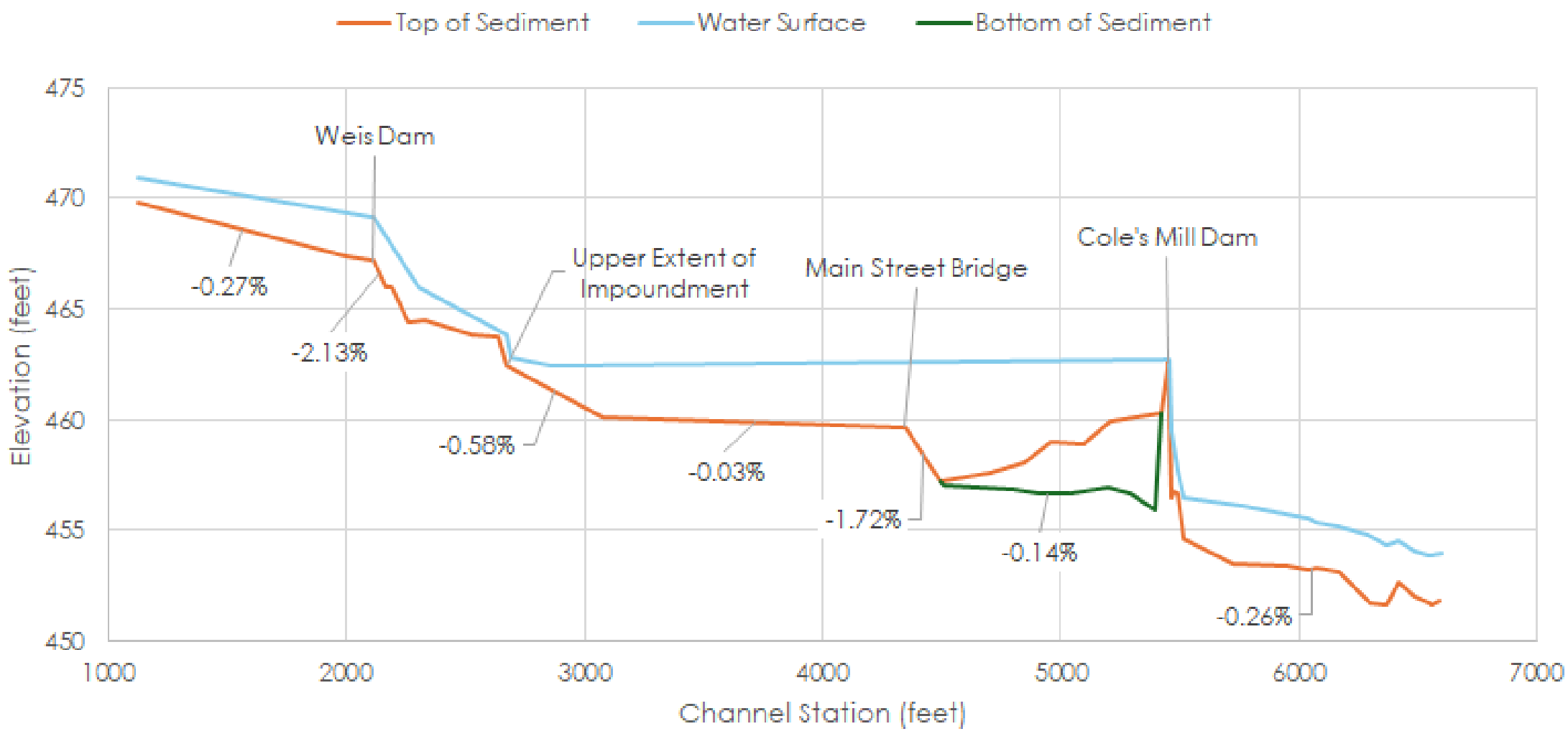
Final Steps

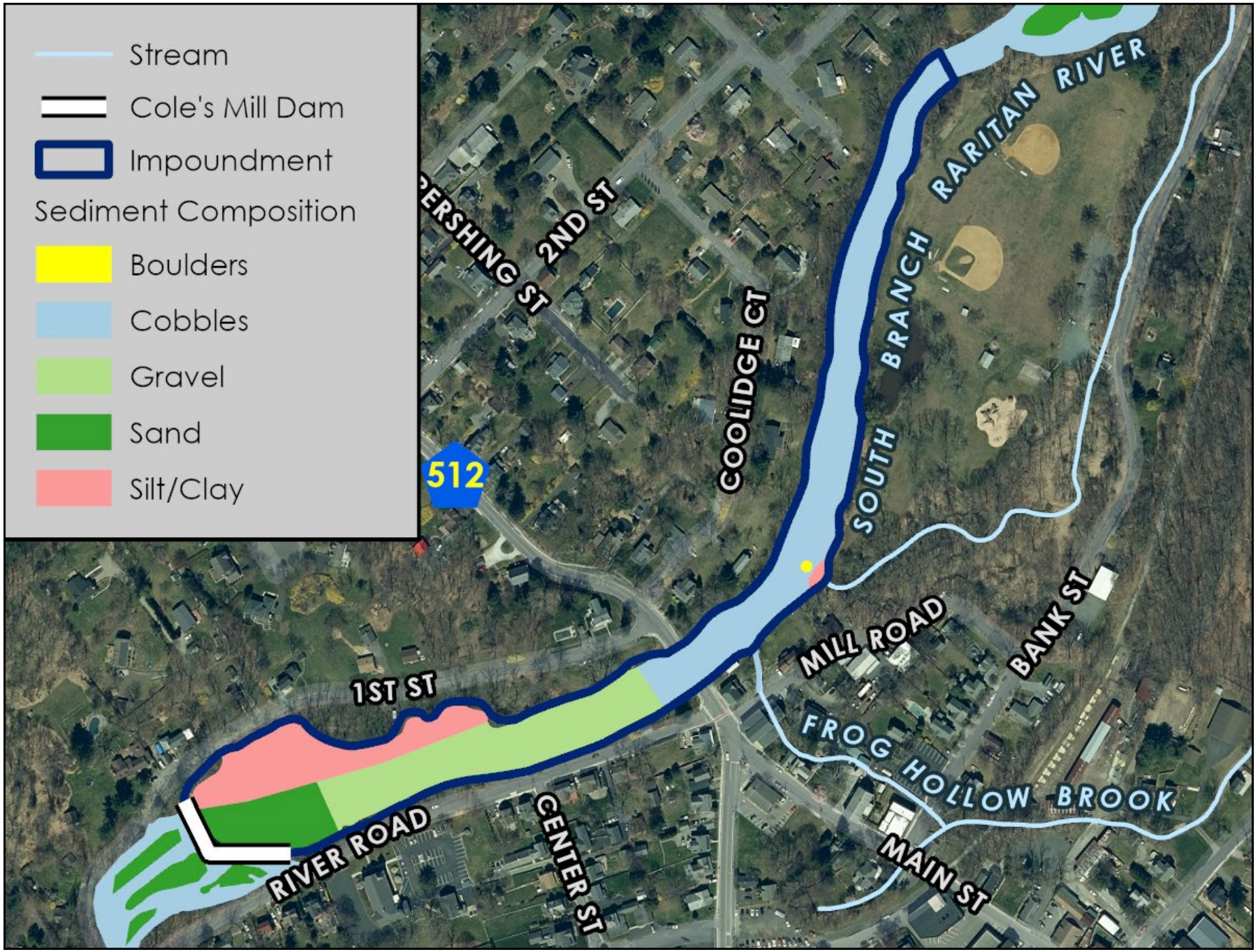
- Local, State, and Federal Approvals
- Final Engineering Plans
- Bid Package

Field Investigations

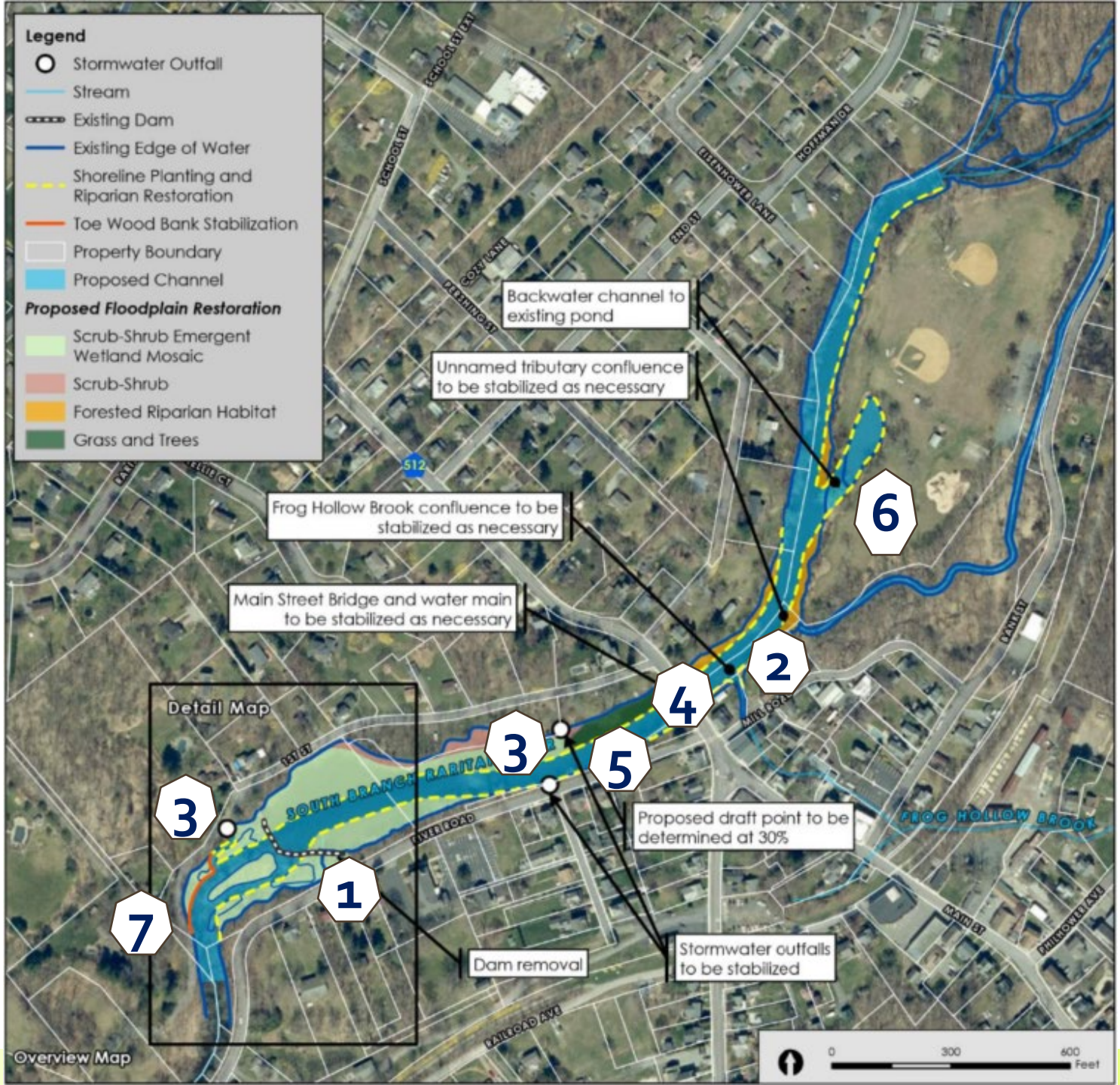
- ❑ Phase 1 Archaeological Survey
- ❑ Topographic/Bathymetric Survey
- ❑ Geomorphic Survey
- ❑ Wetland Delineation/Veg Survey
- ❑ Threatened & Endangered Species Evaluation
- ❑ Sediment Sampling
- ❑ Hydrologic & Hydraulic Model
- ❑ Structural Assessment

Longitudinal Profile





Sediment Compositio n& Quality



Design Features

1. Dam Removal
2. Tributary Stabilization
3. Outfall Stabilization
4. Bridge Stabilization
5. Drafting Point
6. Backwater Channel
7. Toe Wood Bank Stabilization

PROPOSED SCRUB SHRUB WETLAND - EMERGENT WETLAND MOSAIC

CALIFON ISLAND PARK

PROPOSED WETLAND POCKET

DAM DETAIL

N

SCALE: 1"= 120 FEET

0 120 240


WETLAND POCKET
SOUTH BRANCH RARITAN RIVER

Scrub/Shrub and Emergent Wetland

- Water Quality
- Fish & Wildlife
- Flood Control

SCIENCE
ENGINEERING
DESIGN


DAM ABUTMENT REMNANT

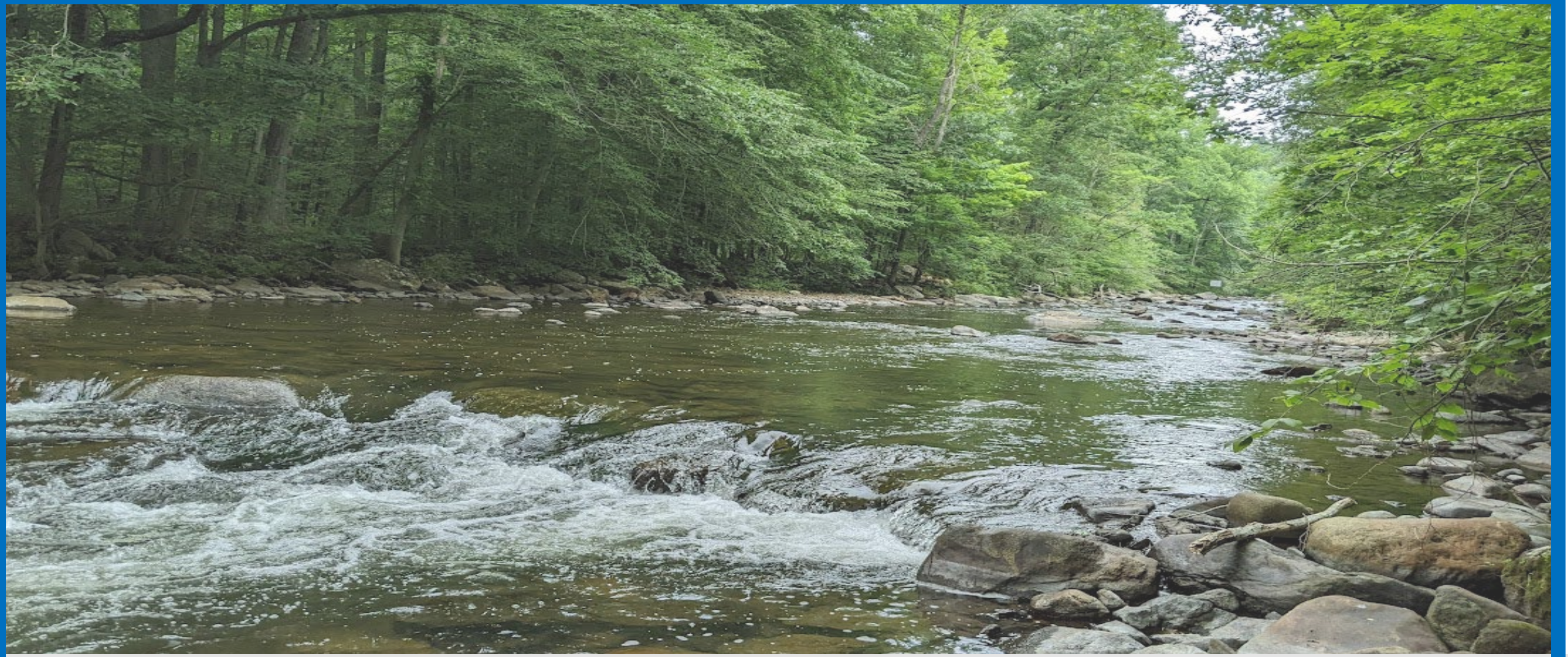
Next Steps…

- Engineering Design (2024/2025)
- Regulatory Approvals (2025)
  - Opportunity for public input
- Construction (2026-2027)

Project Schedule

SCIENCE ENGINEERING DESIGN

PRINCETONHYDRO.COM



Raritan Headwaters

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