



# ADDRESSING INFRASTRUCTURE

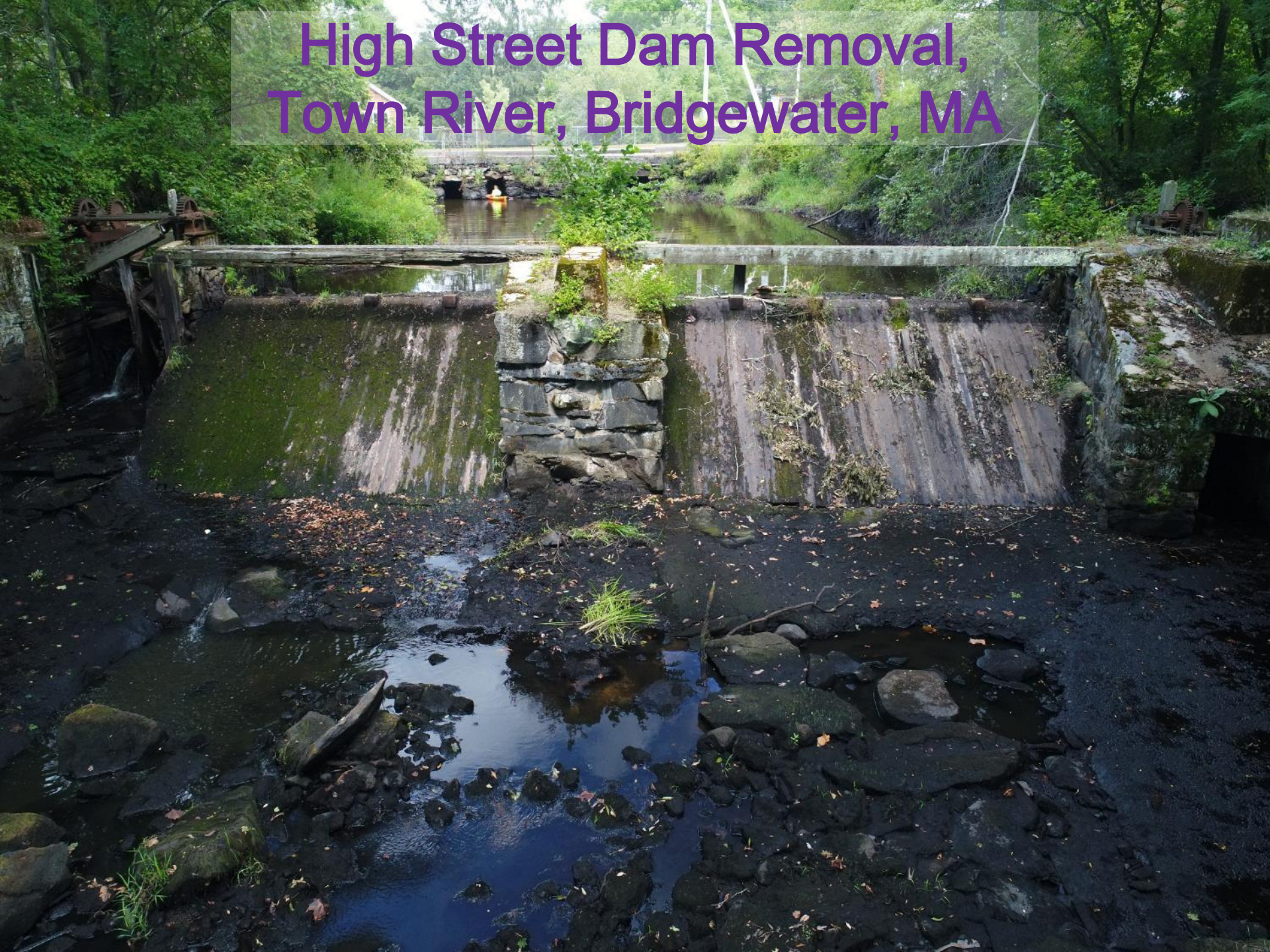
**Massachusetts Rivers Alliance: Dam Busters 101**

**April 3, 2024**

Kristopher M. Houle, PE  
Senior Project Manager



# High Street Dam Removal, Town River, Bridgewater, MA



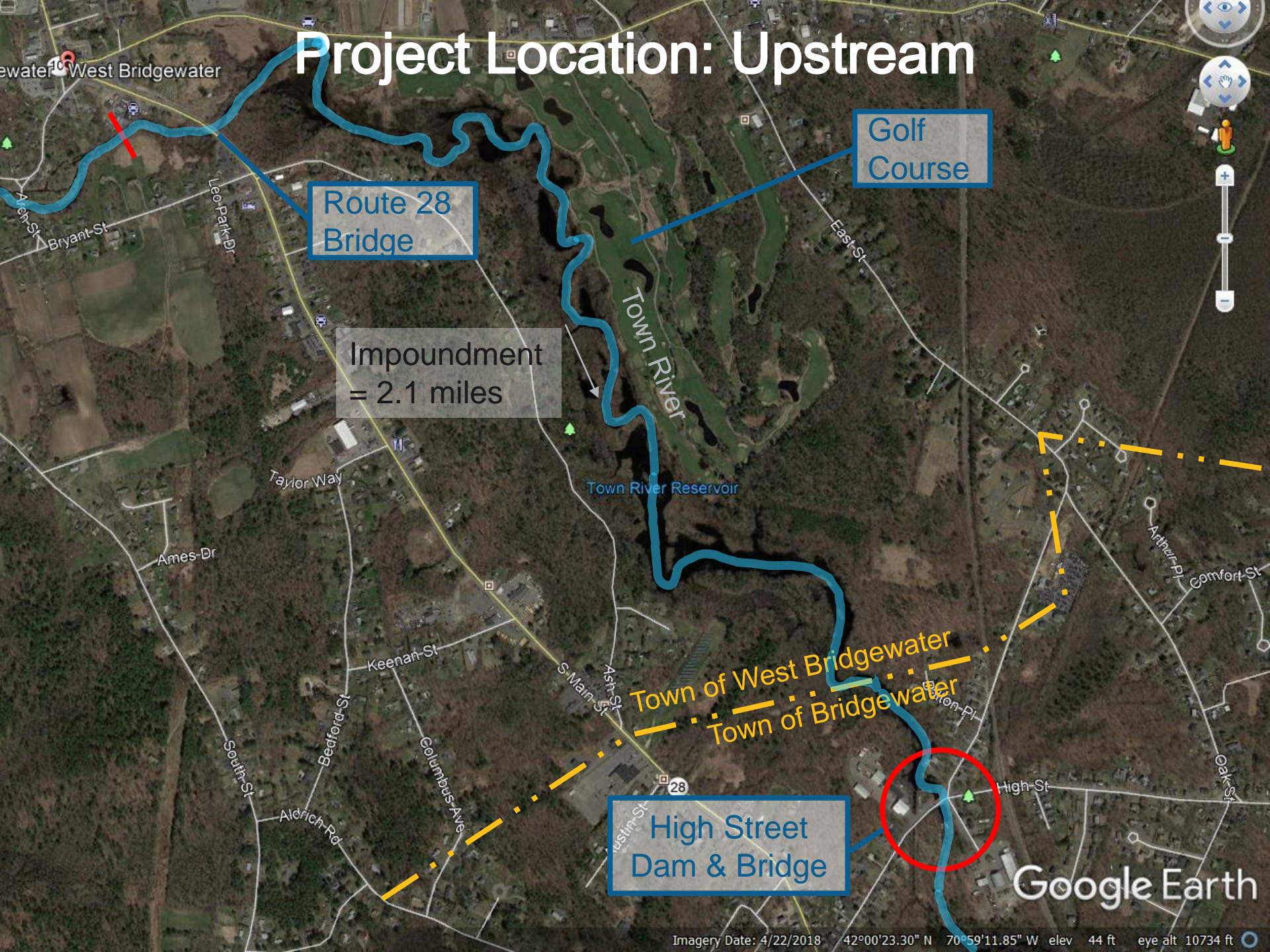


# High Street Bridge





# Project Location: Upstream



Golf Course

Route 28 Bridge

Impoundment = 2.1 miles

High Street Dam & Bridge

Town of West Bridgewater  
Town of Bridgewater

Google Earth



# Project Location: Downstream

High Street Dam

Route 18 Bridge

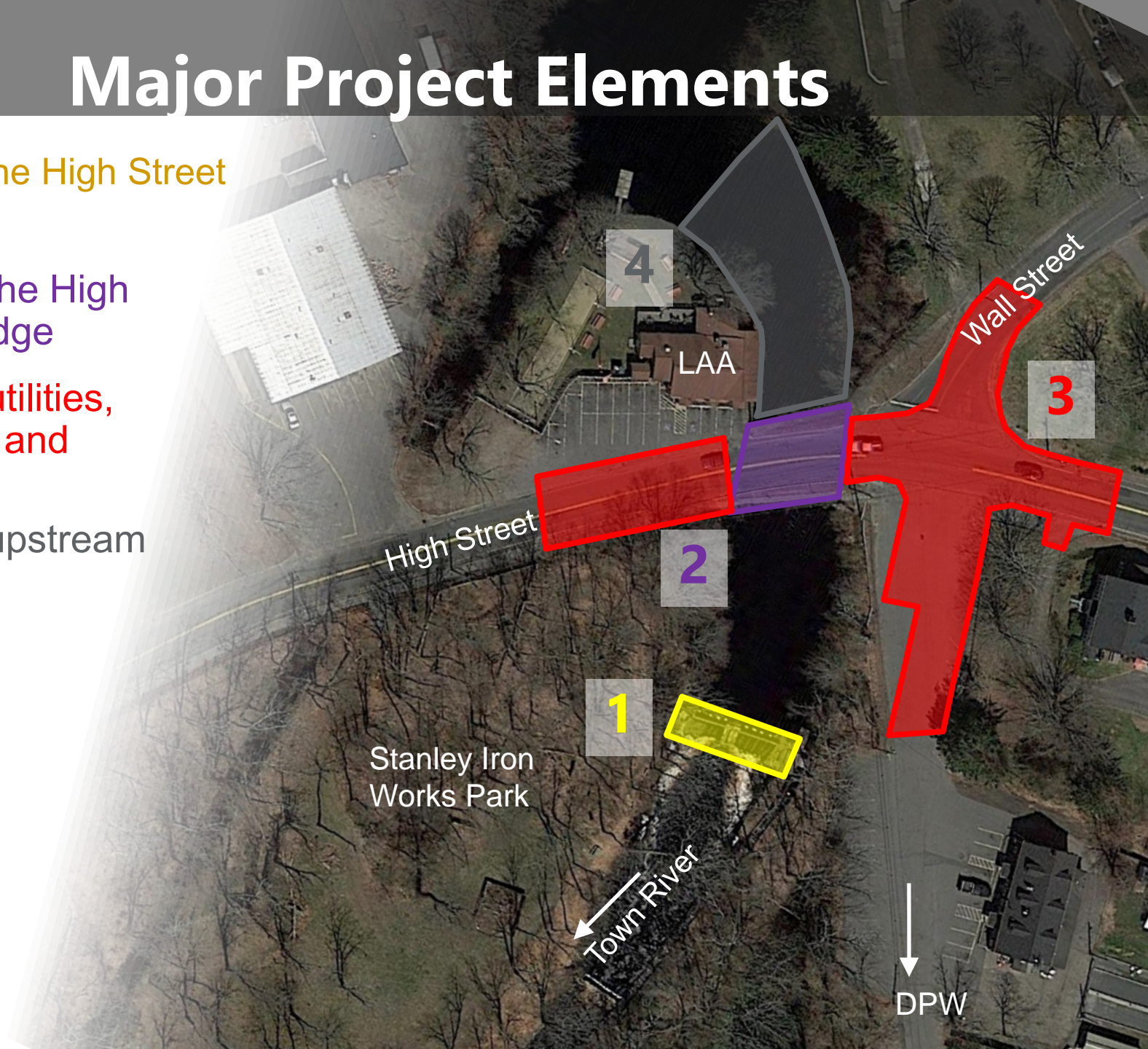
Downstream Railroad Bridge

Wastewater Treatment Plant



# Major Project Elements

1. Remove the High Street Dam
2. Replace the High Street bridge
3. Address utilities, drainage, and roadway
4. Stabilize upstream building





## Flooding of High Street and LAA, March 1968





# Project Goals and Objectives

- **Improve public safety by removing & replacing aging infrastructure. Reduce liability.**
- **Mitigate local flooding.**
- **Increase community resilience to effects of climate change.**
- **Address potential hazards of uncontrolled dam failure. Manage impounded sediments in a controlled manner.**
- **Improve recreational use and access to the river and park.**
- **Honor site history.**
- **Restore natural river processes (i.e., natural movement of water, sediment, nutrients)**
- **Improve fish passage and access to spawning grounds – 10 river miles / 354 acres.**





Impoundment Drawdown, 2017



















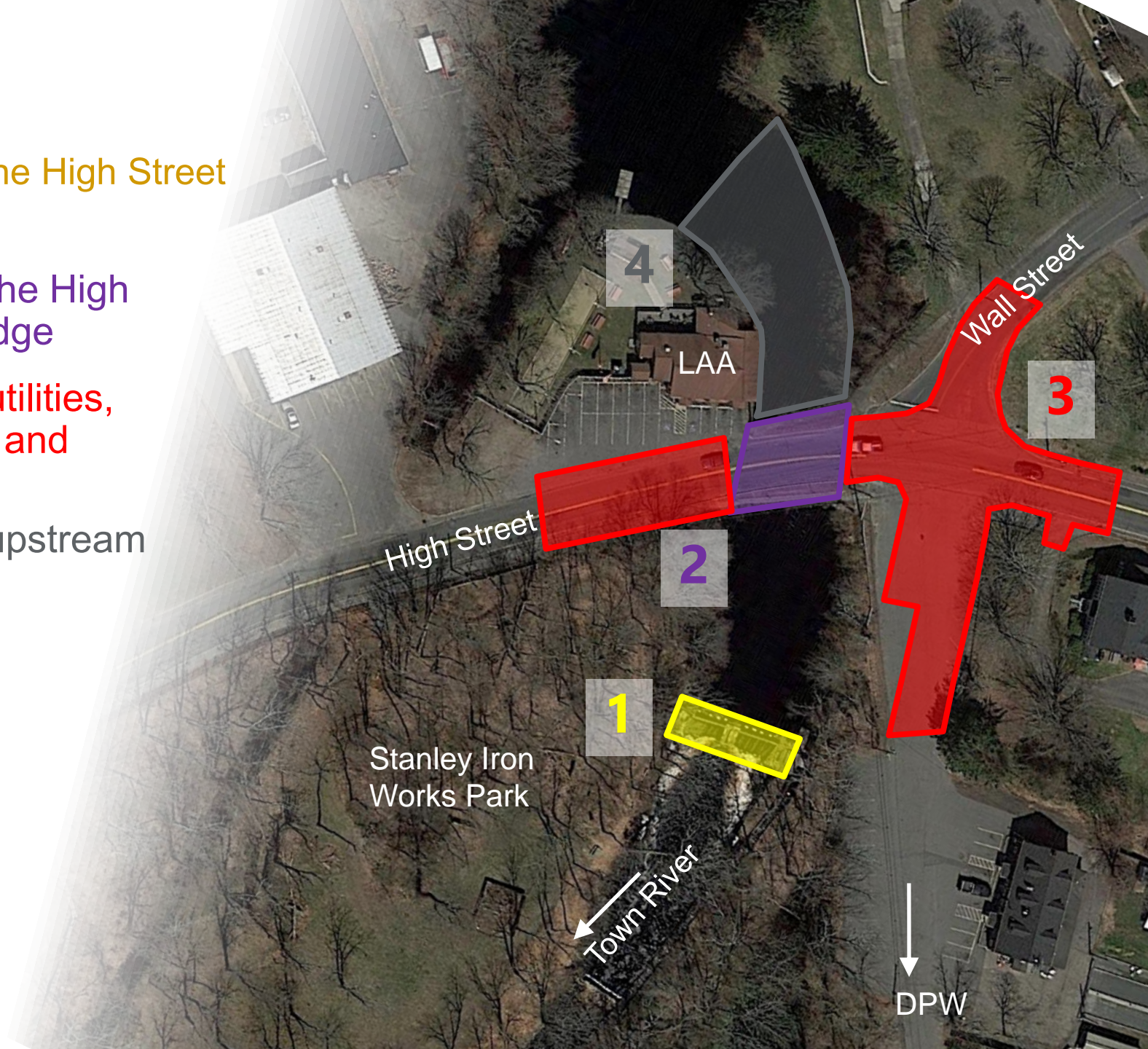


1. Remove the High Street Dam

2. Replace the High Street bridge

3. Address utilities, drainage, and roadway

4. Stabilize upstream building



4

3

2

1

Stanley Iron Works Park

LAA

High Street

Wall Street

Town River

DPW































# PROJECT RECAP

- **Timeline: 2016 - 2024**
- **Began as a private dam owner removal project**
- **Ended as a public infrastructure improvement and resiliency project**
- **Focused on the infrastructure complexities to expand partnership and gain public support**
- **Technical challenges became opportunities to attract support and funding**



# Inflation Reduction Act Bipartisan Infrastructure Law American Rescue Plan Act



**NOAA  
FISHERIES**



**NFWF**

The Nature Conservancy 



Massachusetts Department of Fish and Game  
**Division of  
Ecological  
Restoration**

*Invested in Nature and Community*



Executive Office of Energy  
and Environmental Affairs



**Bridgewater  
MASSACHUSETTS**



**MVP**  
Municipal Vulnerability  
Preparedness



# What if my project has...

Road / utility corridors

Historic structures

Fire  
suppression

Waterfront property

Fishing &  
boating access

Water supply  
/ irrigation



# PROJECT SCOPING TO ADDRESS INFRASTRUCTURE



- **Be thorough with early site reconnaissance**
- **Take a 10,000-foot view of project area**
  - Consider watershed and historical context
  - Investigate upstream and downstream infrastructure
  - Understand existing impoundment uses
  - Confirm ownership
  - Consider site access
  - Characterize and predict sediment movement
- **Forecast undesired outcomes to understand risks**
- **Recognize opportunities and co-benefits**



# Site Reconnaissance: Infrastructure



Mill Street Dam, Pittsfield





Mill Street Dam, Pittsfield



# Site Reconnaissance: Impoundment Uses





# Site Reconnaissance: Upstream Impacts



Gravel  
washing  
facility

Village water  
supply well

Intake

Dam

Google Earth

Imagery Date: 9/12/2017 42°21'13.21" N 72°08'27.88" W elev 596 ft sea alt 4027 ft



# Site Reconnaissance: Downstream Impacts



Quinapoxet River Dam, W. Boylston



# Site Reconnaissance: Access



2017/01/26



- Don't let perception discourage project progress
- Seek guidance from others
- Identify and highlight community benefits
- Turn challenges into opportunities



Armstrong Dam, Braintree



# Thank You!

**Kristopher Houle, PE**  
**[khoule@tighebond.com](mailto:khoule@tighebond.com)**  
**508-304-6344**