

Herring River Restoration Project Update for Herring River Stakeholders Group

May 30, 2024



Presentation Overview

Project Team Roles

Project Overview

Updates

- Permitting

- Fundraising and Grants Management

- Construction

- Marsh/Vegetation Management

Duck Harbor Overwash

Look Ahead



Project Team & Roles

Proponents: Town of Wellfleet & Cape Cod National Seashore (MOU IV)

- Own infrastructure or land; obtained permits & funding
- Construction/CM contractors paid by grant funds

Herring River Executive Council

- Herring River Stakeholders Group

Herring River Technical Team

- Town & Seashore
- Funding and Technical Partners: National Oceanic & Atmospheric Administration, US Dept. Agriculture/Natural Resources Conservation Service, MA Division of Ecological Restoration, US Fish & Wildlife Service, Cape Cod Conservation District

Friends of Herring River

- Non-construction contractors paid by grant funds
- Full-time staff provide ongoing project support

Contractors

Project Co-Owners



Funding Partners



Coordination



Herring River Restoration Project Overview

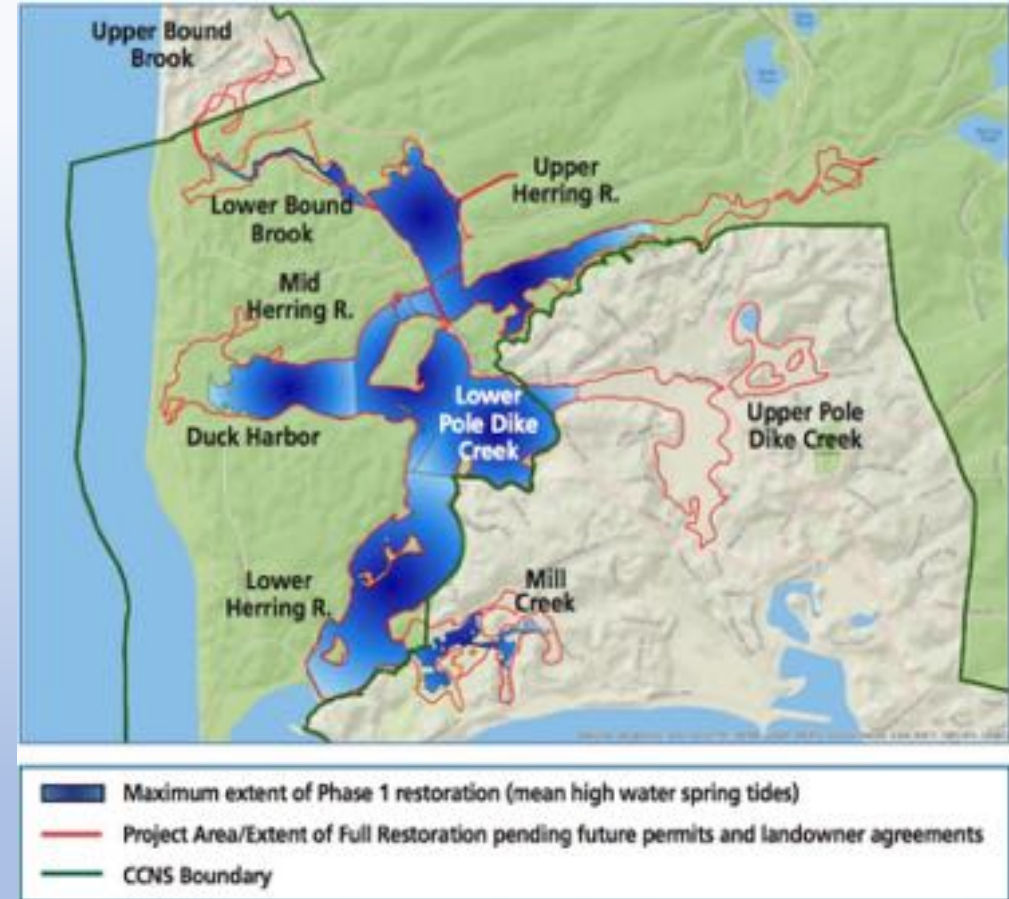
Restore tidal exchange to address existing impairment and restore ecological function:

- Impaired waters under Federal Clean Water Act
- Bacterial contamination closed shellfish areas & threatens grants
- Subsided & deteriorated marsh peat
- Lost estuarine habitat

Extensive benefits include:

- Improved water quality
- Restored habitat for fish and shellfish, marsh birds, other wildlife
- Restored estuarine function;
- Increased resilience, and improved carbon storage.

Construction & marsh management activities underway, but tidal restoration has not begun - no change in system hydrodynamics due to tidal restoration



Project Update - Permitting

- Permits in hand:
 - MEPA Certificate and Record of Decision (2016)
 - Cape Cod Commission Development Regional Impact approval (2020)
 - §401 Water Quality Certification (2021, 2024)
 - Approval under §404 MA General Permit (2021, 2024)
 - US Coast Guard Advance Approval (2021)
 - Notice of Intent for Ecological Restoration Limited Project (ERLP) – Wellfleet and Truro Orders of Condition received and recorded. (2022)
 - MGL Ch. 91 Waterways Licenses
 - Issued:
 - Chequessett Neck Bridge, High Toss, Way 672
 - Pending final design: low roads, Chequessett Club



Project Update – Fundraising/Grants Management

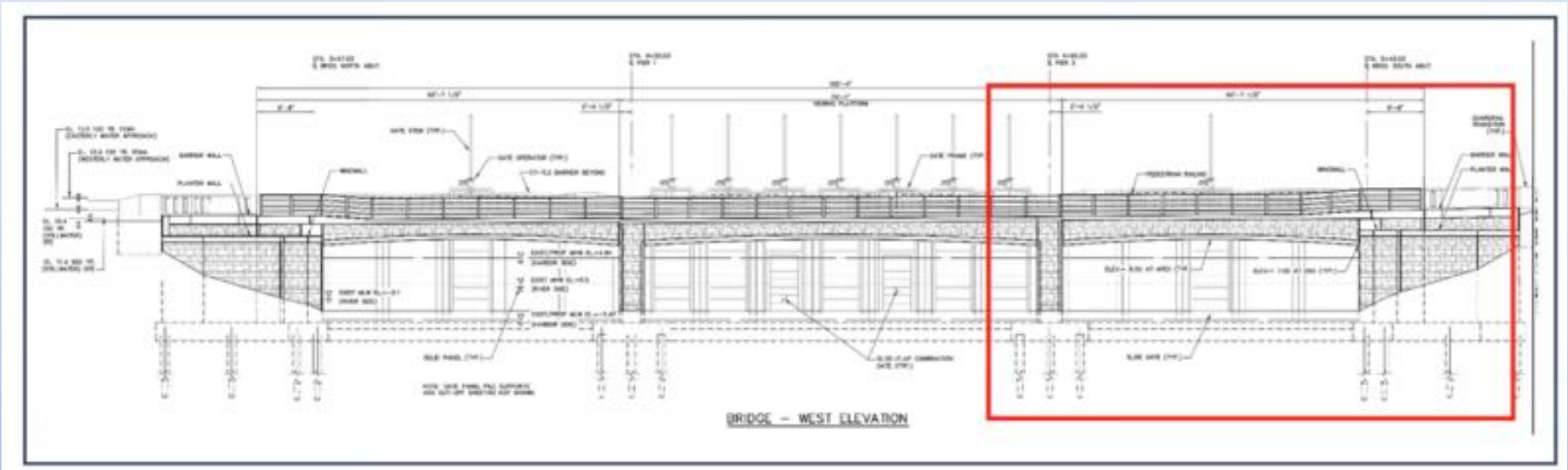
- \$8,000,000 grant from USDA Natural Resources Conservation Service to NPS for Mill Creek Water Control Structure
 - \$1,425,000 Match from National Park Foundation
- \$64,560,000 grant agreements executed by Town:
 - \$27,200,000 - USDA Natural Resources Conservation Service
 - \$22,670,000 - MA Division of Ecological Restoration
 - \$14,690,000 - NOAA Transformational Habitat Restoration
- Funding for marsh/vegetation management
 - ≈\$2,000,000 - US Fish & Wildlife North American Wetlands Conservation Act through Ducks Unlimited
 - NPS/NPF funding for vegetation management
- Grant Administration & Reporting- Environmental Partners & Clifton Larson Allen



Construction Update - Spring 2024

Chequessett Neck Road Bridge

North



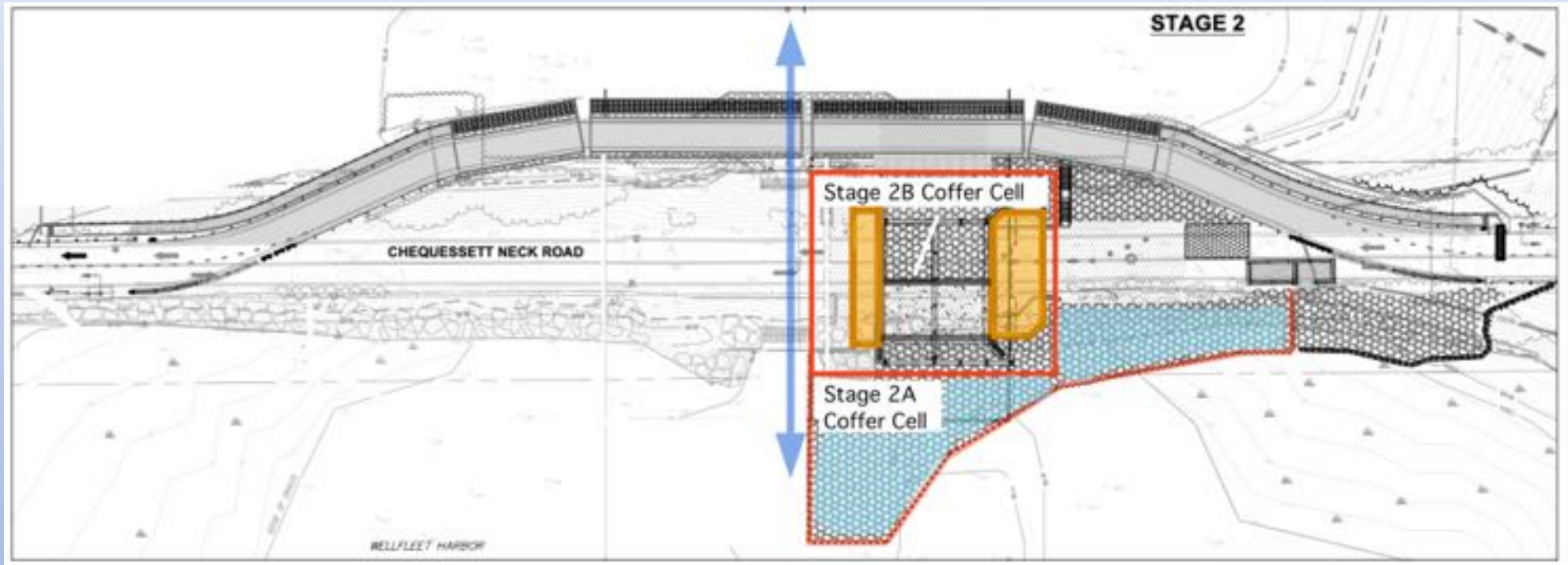
South

Stage 2

- Installation of Stage 2A stone armor / scour protection
- Excavation and removal of existing dike within stage 2B coffer cell
- Installation of permanent pipe piles and footings
- Installation of southern abutment, southern pier and southern bridge deck

Construction Update - Spring 2024

Chequessett Neck Road Bridge



Stage 2

- Tidal flow maintained in original configuration through existing culverts
- Implementation of stage 2B dewatering

Construction Update - Spring 2024

Chequessett Neck Road Bridge



Project Update – Construction

Low-Lying Roads and Culvert Replacements

- Final Design
 - Low Lying Roads & Culverts
 - Geo-technical borings complete
 - Reviewing proposed elevations in light of Duck Harbor overwash
 - Low Property mitigation
- Estimated Schedule for roads & culverts
 - Final design completion – Summer/Fall 2024
 - Bidding – Fall 2024/Winter 2025
 - Construction - Winter 2025
- Town-NPS Easements and Land Transfer
 - Possible Fall Town Meeting warrant articles



Project Update – Construction

Mill Creek Water Control Structure

- \$8,000,000 grant from USDA Natural Resources Conservation Service to NPS for construction; \$1,425,000 match contribution from National Park Foundation
- Contractor – Classic Site Solutions
- Site clearing underway
- Estimated completion Spring 2025



Duck Harbor Overwash

Naturally occurring – caused by rising sea levels in Cape Cod Bay; high tides exacerbated by winds/storms

Overwash enlarged by winter storms - eroded large section of dune - more water into the river system

Not an inlet--water flows one direction toward river. Only way out is through Chequessett Neck dike

Not caused by restoration project—no restoration hydraulic changes yet—however, project provides long-term solution by removing restrictions and elevating roads

Created new conditions to address (infrastructure, planning, ecosystem response)



Project Updates - Vegetation Clearing

Benefits/Reasons for Clearing

- Encourage salt marsh growth where vegetation would need to be removed anyway -- salt marsh plants, birds, fish already observed returning
- Volume of dead vegetation/Reduce risk of wildfire
- Improve access for mosquito management






Herring River Vegetation Management Locations, Phase 1

348 acres: About 62% of Phase 1 area

Phragmites



FIGURE 1: Phase One Non-Woody Emergent Vegetation

Phase One Project Area, 566 Acres 
Common Reed, 43 Acres 
Other Emergent Species, 209 Acres 



Shrublands



FIGURE 2: Phase One Shrubland Vegetation

Phase One Project Area, 566 Acres 
Shrublands, 179 Acres 



Woodlands

FIGURE 3: Phase One Woodlands Vegetation

Phase One Project Area, 566 Acres 
Woodlands, 126 Acres 



Project Updates - Vegetation Clearing

Areas cleared:

- 125 ac in Duck Harbor – salt killed by overwash
- 25 ac west side of Herring River, north & south of High Toss – remaining area reached by tidal flow by year 3
- Prior to restoration (45 acres of Phragmites in Lower Herring River)

Funded by USFWS & National Park Foundation





Mean Spring High Tide Line Expected
2026-2028 (pending CNR Bridge
Construction Schedule)

Mean Spring High Tide Line Expected At
End of Phase 1 (pending Tide Gate
Management Timeline)



Cape Cod National Seashore

Herring River Restoration - Vegetation Cleared in 2024 70 +/- Acres

Interior Region 1 North Atlantic - Appalachian
National Park Service
U.S. Department of the Interior



Map Scale = 1:9700

Project Look Ahead

- Bridge construction through late 2025
 - Phragmites cut in Lower Herring River
- Low road construction through 2026
- Marsh restoration pilot projects
- 3-yr tide gate management policy:
 - Yr 1: Progressive openings to reach threshold where tides overflow stream/creek banks, flood marsh surfaces
 - Yrs 2-3: monitoring



Questions & Discussion

