



How Will Monitoring Data Be Used For The Herring River Restoration Project?







Herring River Adaptive Management Plan

 A Systematic Plan for Incremental Openings of the New Chequessett Neck Road and Mill Creek Water Control Structures







Monitoring Data Support Specific Project Objectives

- What Is To Be Avoided? What Is To Be Achieved?
- About 40 Objectives Ecological and Socioeconomic Topics

Prevent Adverse Impacts To Harbor Shellfish Beds

Improved CLosed Shellfishing Habitat

Project
Objectives
Most
Related To
Shellfishing

Prevent Increased Nitrogen Loading

Prevent Increased
Sediment Loading and
Monitor Deposition At
Shellfish Areas

Improve Water Quality Above and Below CNR Dike

> Dissolved Oxygen, pH (Acidity), Salinity, Temperature, Nutrients

Reduce Fecal Coliform
Discharge





Actual Observations Obtained Through Monitoring Will Be Compared To Predicted Responses

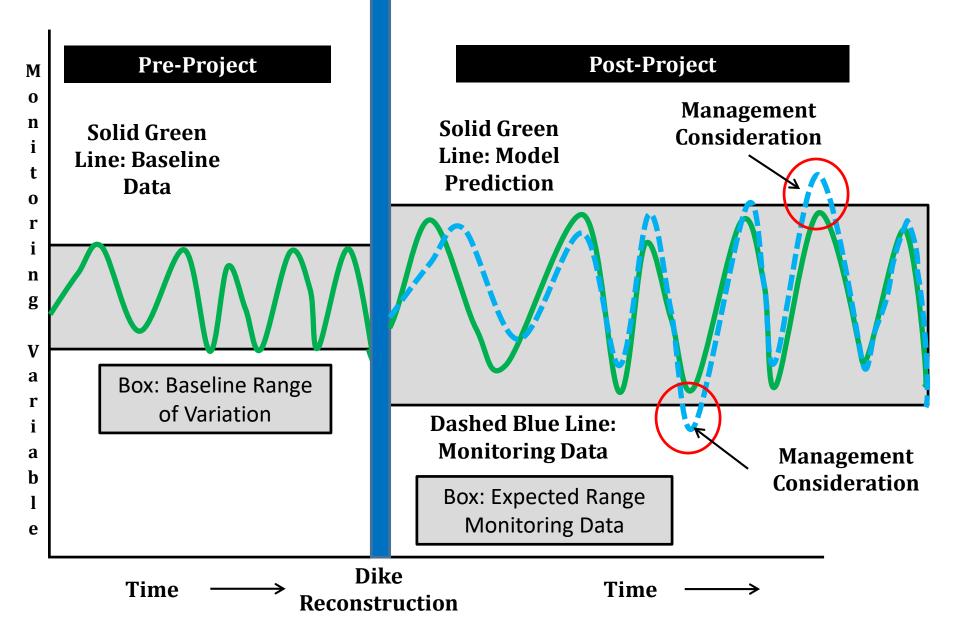


- Predictions (or Models) Express Our Understanding of Ecological Relationships/Driving Factors And How The Ecosystem Will Change With Tidal Restoration
- Predictions/Models Provide The Basis For Comparing Actual
 Outcomes Detected Through Monitoring

Shellfish Monitoring and Adaptive Management for the Herring River Restoration Project March 5, 2018



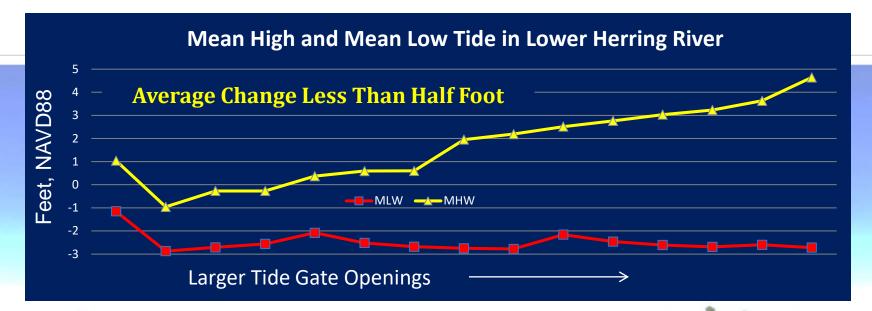


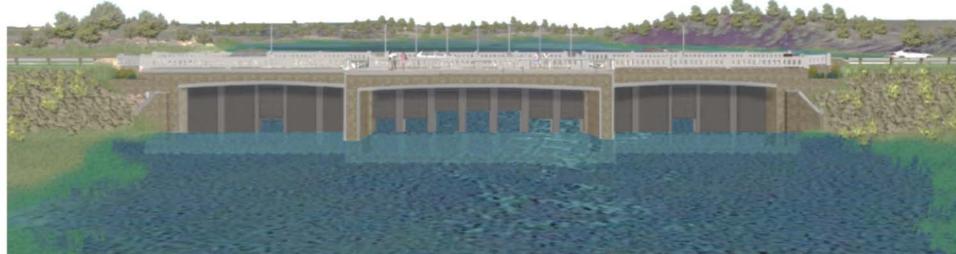






Increases to Mean High Tide Water Levels Will Be Small

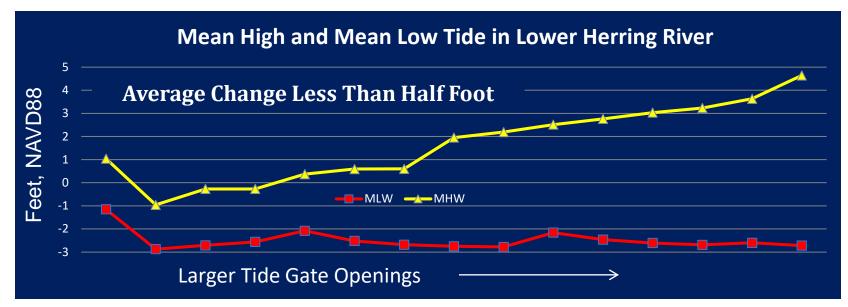








Increases to High Tide Water Levels Will Be Small



- Small Changes To Tide Gates Will Result In Small Changes To Tidal Hydrology,
 Salinity, And Other Effects
- Frequency of Gate Changes Will Be Based On The Ability to Collect All of the Required Monitoring Data And How The System Is Responding To Increased Tidal Exchange
- Current Analysis Of 5 To 25 Year Timeframes Underway
- Tripping Management Triggers: Cease Opening Tidegates, Close Tidegates, Initiate Secondary Action, Re-evaluate Data and Predictions





Decisions About Managing Tide Gates Will Be Made Locally By The National Seashore And Towns

Data Collection: Park Service, U.S. Geological Survey, Friends of Herring River, Others

Data Reviewed: HR Restoration Committee And Science Panel

Formulate Management Recommendation(s)

Local Stakeholder Group and Regulatory Oversight Group Review

Executive Council (Towns and Natl. Seashore): Approve Recommendation Or Requests More Data And Information

- Approved Recommendation Carried Out
- Monitoring Continues
- Some Data Used to Refine Models And Predictions Of Future Changes