

Public Scoping Meetings Schedule & Locations

Scoping is the first step to involve the public in the environmental impact analysis process. Scoping includes holding meetings and providing opportunities for the public to comment so their concerns are identified early and the analysis is focused on important issues. Because the project/EIS/EIR will analyze many complex ecological and social issues, your participation is encouraged and needed.

The meetings are intended to solicit comments under a Joint Massachusetts Environmental Policy Act/Cape Cod Commission and National Environmental Policy Act review process.

Wellfleet, Massachusetts
Thursday August 14, 2008 2:00 pm to 4:30 pm
Wellfleet Council on Aging
715 Old King's Highway
Wellfleet, MA 02667

2:00 pm to 2:30 pm Herring River Restoration Committee Presentation
2:30 pm to 4:30 pm Public Meeting

Wellfleet, Massachusetts
Wednesday September 24, 2008 7:00 pm to 9:30 pm
Wellfleet Council on Aging
715 Old King's Highway
Wellfleet, MA 02667

7:00 pm to 7:30 pm Herring River Restoration Committee Presentation
7:30 pm to 9:30 pm Public Meeting

Your Participation Will Help Shape This Project

There are a number of ways to be involved:

- Attend a public scoping meeting
- Submit comments electronically to:
http://parkplanning.nps.gov, or by e-mail to CACO_Herring_River@nps.gov.
- Submit written comments by mail or hand delivery to:
Superintendent
RE: Herring River Restoration Project EIS/EIR
Cape Cod National Seashore
99 Marconi Site Road
Wellfleet, MA 02667

Please comment on-line or provide written comments by mail. Faxed comments will not be accepted. Please be sure to include your full name and address with the comments so we may add you to our mailing list for information on the planning process. In order for your comments to be the most useful in developing the draft project/EIS/EIR, please submit comments by October 31, 2008.

NPS practice is to make comments, including names, home addresses, home phone numbers, and email addresses of respondents, available for public review. Individual respondents may request we withhold their names and/or home addresses, etc., but if you wish us to consider withholding this information, you must state this prominently at the beginning of your comments. In addition, you must present a rationale for withholding this information. This rationale must demonstrate that disclosure would constitute a clearly unwarranted invasion of privacy. Unsupported assertions will not meet this burden. In the absence of exceptional, documentable circumstances, this information will be released. We will always make submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.

Herring River Restoration Committee
Wellfleet/Truro, MA



Herring River Restoration Project

Public Meeting on the Herring River Restoration Project/
Environmental Impact Statement/Environmental Impact Report | August 2008

You're Invited! Because of your interest in the Herring River estuary, we are requesting your input in developing the Herring River Restoration Project/Environmental Impact Statement (EIS)/Environmental Impact Report (EIR). Your participation is vital to our planning process.

Background on Alterations to the Herring River System

The Herring River is the largest tidal river and estuary complex on Outer Cape Cod. Prior to 1909 when the river was open to Wellfleet Harbor at Chequessett Neck, it was bordered by nearly 1,100 acres of coastal wetlands and contained a productive river herring run and shellfishery, as well as extensive salt marsh habitats. In 1909, the natural condition of the estuary was changed dramatically when the river was diked at Chequessett Neck. The dike was constructed with the intent of controlling mosquitoes and creating arable and developable land. Subsequent ditching and stream channelization was intended to drain the system’s wetlands even further. Today, the Chequessett Neck Road dike has restricted the normal tidal range of 10 feet below the dike to approximately 2 feet above the dike, while drainage has caused the wetlands upstream of the dike to subside by nearly 3 feet.



Nearly 100 years of diking and drainage of the estuary has resulted in hundreds of acres of original intertidal salt marsh being converted to upland vegetation, eliminating habitat for estuarine animals, including shellfish and finfish. Since the dike was constructed, non-native salt-intolerant grasses and woody vegetation have increased, even in the river channel, restricting recreational boating and anadromous fish habitat. Surface waters have been acidified by wetland drainage and the oxidation of sulfur in the diked salt marsh peat; high acidity leaches toxic metals from native clays to surface water; and in the summer, dissolved oxygen depletions are common due to reduced tidal flushing. All of this has caused fish kills in the river, while high acidity and periods of low oxygen have restricted fish access to mosquito breeding sites; thus, nuisance mosquitoes can still be abundant.



The Herring River Restoration Committee (HRRC), a multi-agency group appointed by the Cape Cod National Seashore and the Towns of Wellfleet and Truro, recognizes the environmental and socioeconomic benefits of restoring this tidally restricted and degraded estuarine system, and is currently engaged in developing a comprehensive restoration plan for the estuary, building upon work completed by the preceding Town-appointed Herring River Technical Committee (HRTC). The restoration project EIS/EIR will identify restoration actions and adaptive management strategies so changes to floodplain characteristics can be monitored, and adjustments made, if unanticipated and/or unacceptable changes occur.



Cape Cod National Seashore
99 Marconi Site Road
Wellfleet, MA 02667





Purpose of and Need for Action

The purpose of this project is to develop and implement actions for the restoration of self-sustaining coastal habitats throughout the 1,100-acre Herring River estuary in Wellfleet and Truro, Massachusetts. The Herring River’s wetland resources and natural ecosystem functions have been severely altered and damaged by 100 years of diking and wetland drainage. As a result, a restoration and long-term management plan is needed to:

- Re-establish the physical connection between the estuary and Cape Cod Bay for natural material exchange and access to marine animals including migratory fish;
- Restore aquatic habitat and ecosystem services within the estuary and in receiving waters of Wellfleet Harbor by reversing water quality effects of 100 years of diking/wetland drainage;
- Replace existing invasive exotic plant species with native salt marsh species through the re-establishment of natural estuarine salinity;
- Restore ecosystem productivity through the re-establishment of a naturally occurring high tidal range;
- Minimize the long-term management and social costs of continued diking in the face of current, and likely accelerating, sea level rise; and
- Guide a phased, carefully monitored, and adaptively managed long-term restoration program.



Objectives

Objectives are what must be achieved to a large degree for the action to be considered a success. The following draft objectives are related to developing a tidal restoration plan for the Herring River:

NATURAL RESOURCES

- To greatest extent, given adjacent infrastructure and other social constraints, re-establish natural tidal range, salinity distribution and sedimentation patterns of the original 1,100-acre estuary.
- Improve estuarine water quality for resident and migratory animals including fish, shellfish, and waterbirds.
- Protect and enhance harvestable shellfish resources both within the estuary and in receiving waters of Wellfleet Bay.
- Restore the connection with the marine environment to recover the estuary’s functions as: 1) a nursery for marine animals and 2) a source of organic matter for export to near-shore waters.
- Remove physical impediments to migratory fish passage to restore once-abundant river herring and eel runs.
- Re-establish native salt marsh vegetative cover in place of invasive and exotic plants.
- Restore normal sediment accumulation on the wetland surface to counter subsidence and allow the Herring River marshes to accrete in the face of sea-level rise.

CULTURAL RESOURCES

- Restore the expansive marshes and tidal waters that were once a principal maritime focus of both Native Americans and European settlers of outer Cape Cod in a manner that preserves the important cultural resources of the area.

ADJACENT DEVELOPMENT

- Preserve or enhance groundwater quality for local domestic use.
- Re-establish natural control of nuisance mosquitoes by restoring tidal range and flushing, water quality, and predatory fish access.
- Improve and/or relocate current low-lying roads in and adjacent to wetlands subject to flooding.
- Maintain a playable layout of the Chequessett Yacht and Country Club (CYCC) golf course, portions of which are within the flood plain and subject to seasonally high water levels.

PUBLIC EXPERIENCE

- Provide a highly visible example of the values of estuarine habitat restoration and a rich and long-term opportunity to educate the public about the dependency of productive salt marshes on unaltered tidal exchange.
- Restore aesthetic appeal and accessibility of the open herbaceous marsh in place of existing scrub/shrub invasive species.
- Improve fin- and shell-fishing opportunities.
- Provide new opportunities for canoeing, kayaking, and wildlife viewing over a diversity of restored wetland/open-water habitats.
- Minimize disruption to visitor use and experience or adverse impacts to visitor and community safety during implementation of any restoration actions.

GOVERNMENT PARTNERSHIPS

- Coordinate efforts among state and federal partners and local communities to establish common goals and collaborate to achieve them.

Issues Related to Implementing a Restoration Project for Herring River

The following highlights several of the issues identified early on in the planning process:

Fish and Wildlife: Tidal restoration could impact adversely and/or beneficially the many resident and transient species of fish, invertebrates, birds, and mammals that use Herring River.

Threatened and Endangered Species: While there are no federal-listed species located within the project area, tidal restoration could impact state-listed species and their habitats within the estuary both beneficially and adversely.

Essential Fish Habitat (EFH): Tidal restoration could impact EFH designated for several species in Herring River.

Water Quality/Quantity: Tidal restoration could affect groundwater and surface water quality both in the Herring River and Wellfleet Harbor.

Soils: Tidal restoration could redistribute accumulated sediment in ways that affect shellfish populations, and the rate of sedimentation on the salt marsh above the dike could impact the re-establishment of salt marsh plants.

Vegetation: Tidal restoration would gradually change the composition of existing plant communities and the death of trees and shrubs resulting from increased tidal inundation could leave woody debris over a large portion of the flood plain, hindering re-establishment of salt marsh plants.

Invasive Species: Tidal restoration could eliminate or greatly reduce invasive, freshwater, vegetative species that have become dominant throughout the estuary. If not managed properly, it could also worsen the seasonal mosquito nuisance by creating stagnant-water breeding sites in some areas of the salt marsh.

Socioeconomics: Tidal restoration could affect the local economy both beneficially and/or adversely by impacting adjacent property values, commercial shellfishing, private structures, and the Chequessett Yacht and Country Club.

Cultural Resources: The Herring River estuary may be an ethnographic resource, and elements of a restoration plan involving earthwork (e.g., golf course reconfiguration) could impact archeological resources and/or historic structures.

Visitor Experience: Tidal restoration could benefit visitor experience by improving public access to fin-fishing and shellfishing (both commercial and recreational) opportunities and making boating more appealing.

Health and Human Safety: With tidal restoration, some roadways could experience increased flooding or be permanently inundated, creating public safety hazards and possibly isolating communities.

Operations and Management: Tidal restoration may impact town, park and possibly agency operations by requiring staff to manage the tide control structures and conduct long-term environmental monitoring.

Preliminary Alternative Concepts

Hydrologic modeling by the NPS has indicated that reconfiguration of the Chequessett Neck Road dike and modified tidal controls could restore the tide-restricted Herring River and its bordering salt marsh habitat. As part of the Conceptual Restoration Plan developed by the HRTC, several preliminary alternatives for restoring tidal flow to the Herring River were considered and are described below. These alternatives are preliminary and were created to start the discussion of possible alternatives for restoring the Herring River estuary. No decision has been made as to the alternatives to be analyzed in the project/EIS/EIR. The input received at public scoping will be used to help develop these preliminary alternatives, identify issues with these alternatives, and identify additional alternatives.

• **Modified Tidegate Control at Chequessett Neck Road Dike:** Under this alternative, the existing dike would be replaced with a new structure with a total opening width of 100-130 feet and fitted with sluice gates to allow full tidal control and management. Hydrodynamic modeling indicated increasing the width of the tidal control openings at Chequessett Neck Road to at least 100-130 feet would be sufficient to restore greater than 80 percent of the tidal regime above the Chequessett Neck Road dike. The modeling report also recommended increasing the size of the culvert at High Toss Road from its current 60-inch diameter to at least 30 feet to remove the restriction to tidal flow at that crossing. Potential options for achieving a width of 100-130 feet include: cast-in-place culverts with 8-foot wide cells, pre-cast arch spans, and a two-span bridge structure.

• **Open Bridge with Upstream Tidegate Controls:** Under this alternative, an open bridge span with no tidal control would be constructed at the site of the existing Chequessett Neck Road dike, while establishing tidal control at select upstream locations with several smaller structures to regulate the limit of tidal flooding. This alternative would provide the potential for full tidal restoration within portions of the Herring River floodplain. However, it would also require the construction of several smaller structures in the upper watershed that would include tidegate controls to regulate the limit of tidal flooding within specific sub-basins to protect existing land uses. To implement an adaptive management strategy, this alternative would also require the construction of temporary control gates at Chequessett Neck Road that could be removed when no longer needed.

