

#14272
Deedee Buckley
617-626-1044

Massachusetts Environmental Policy Act

Environmental Notification Form

Project Name: Herring River Tidal Restoration Plan

Project Municipalities: Wellfleet and Truro

Project Watershed: Herring River

Project Coordinates: UTM: 411,753 Easting 4,642,674 Northing
Latitude: 41° 55' 51.96" North
Longitude: 070° 3' 51.84" West

Project Proponent: Herring River Restoration Committee

Proponent Address: Gary Joseph, Chair

c/o Hillary Greenberg, Department of Public Works Building, 220 West Main Street, Wellfleet, MA 02667

Copies of the Full Project Narrative May Be Obtained From: Craig Wood, PWS

The Louis Berger Group Inc., 75 Second Avenue, Suite 700, Needham, MA 02494.

Phone: 781-444-3330 ext 7475; Cell: 603-759-1561; Fax: 781-444-0099; Email:

cwood@louisberger.com

Does this project meet or exceed a mandatory EIR threshold? Yes

Has this project been filed with MEPA before? Yes (July 9, 2008) **EOEA Number:** #14272

Is this project subject to Special Review Procedure? Yes

Will a coordinated review be conducted for this project? Yes

Coordinated Review: MEPA, National Environmental Policy Act, Cape Cod Commission

MEPA review thresholds likely to be met or exceeded by the project:

Land; Rare Species; Wetlands, Waterways, and Tidelands; Water Supply; and Transportation.

PROJECT DESCRIPTION

In accordance with the Special Review Procedures established for the Herring River Tidal Restoration Plan published in the Environmental Monitor on July 9, 2008, the requirement to submit an actual ENF form for this project has been waived and allows the proponent to submit a project narrative in its place. The Special Review Procedures for this project also allow for a coordinated review of the project under MEPA, the National Environmental Policy Act (NEPA), and the Cape Cod Commission and for the Herring River Restoration Committee (HRRC) to act as a Citizen's Advisory Committee (CAC).

The Herring River is the largest tidal river and estuary complex on the Outer Cape. 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 consists of three 6-foot wide culverts; two of which allow river outflow into Wellfleet Harbor, but block the inflow of seawater, while the third has a partially open (24 inches) sluice gate that allows some inflow of seawater.

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 blocking the inflow of saltwater, salt-intolerant grasses and woody vegetation have increased, even in the river channel, restricting recreational boating and anadromous fish habitat. Meanwhile 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. High acidity, metals, and episodes of anoxia have caused fish kills in the river, while high acidity and episodic hypoxia have restricted fish access to mosquito breeding sites; thus, despite the initial intent of diking to control mosquitoes, nuisance mosquitoes can still be abundant. The 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.

The purpose of the project is to restore tidal exchange throughout the 1,100-acre Herring River estuary to an extent closely approximating the natural tidal range that occurred prior to diking; increasing important social, economic, cultural, and aesthetic values in addition to numerous environmental and ecological benefits. Restoring the full natural tidal range is considered the ecological goal throughout as much of the Herring River floodplain as practicable, including up to the estimated 100-year flood level (9.1 feet above North American Vertical Datum of 1988 (NAVD88)). However, tidal flooding in certain areas would need to be controlled to protect existing land uses. In these areas the goal would be to restore the maximum high tide to no more than the mean spring high-tide level of 5.1 feet above NAVD88, which corresponds with the average

elevation of existing high salt marsh downstream of the Chequessett Neck Road dike. Restoration actions would follow an adaptive management strategy where planned tidal flows would be increased incrementally over a period of several years so that changes to floodplain characteristics can be monitored, and adjustments made, if unanticipated and/or unacceptable changes occur.

As described in the Herring River Tidal Restoration Project Conceptual Restoration Plan, the project would be comprised of some, or all of, the following potential elements: (1) reconstruction of the dike and tide control structure at Chequessett Neck Road; (2) construction of several tidegate control structures upstream of Chequessett Neck Road to protect existing land uses; (3) replacement of several culverts upstream of Chequessett Neck Road to allow increased tidal exchange and better fish passage; (4) reconfiguration of the Chequessett Yacht and Country Club to maintain a playable layout given increased tide heights with river restoration; (5) raising, relocating, or removing up to 22,000 linear feet of low-lying roadways occurring within the Herring River floodplain which would be vulnerable to flooding from a restored tidal range; (6) removal of approximately 600 acres of invasive woody vegetation within the floodplain to promote re-colonization of saltmarsh vegetation and to maintain fish passage; (7) restoration of the natural channel sinuosity to enhance wetland habitat functions and reduce mosquito production; (8) prevention of flooding impacts to several private properties within the floodplain, including structures and domestic water wells; and (9) public access improvements including additional canoe/kayak put-in locations and fishing piers.

It is expected that the project would alter at least 1 acre of salt marsh or bordering vegetated wetland, triggering a mandatory Environmental Impact Report (EIR) under MEPA. Although the exact nature and extent of impacts that the project would have on the natural and socioeconomic environments are not known at this time, it is anticipated that the project would meet or exceed MEPA thresholds for the following resource areas described in the MEPA regulations (301 CMR 11.00): land; rare species; wetlands, waterways, and tidelands; water supply and transportation. The full nature and extent of the project's impacts will be analyzed in a joint EIR/EIS (environmental impact statement) to comply with both MEPA and NEPA.