

**FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT
PROPOSED MUDDY CREEK RESTORATION BRIDGE PROJECT
HARWICH AND CHATHAM, MASSACHUSETTS**

The U. S. Fish and Wildlife Service (Service), in partnership with the Towns of Harwich and Chatham and other partners, is proposing to complete the Muddy Creek Restoration Bridge Project (Project) in Harwich and Chatham, Massachusetts. The purpose of the Project is to restore natural tidal flow to 55 acres of estuarine wetland habitats, improve water quality, enhance fish passage, and reduce flood risk to public and private infrastructure during future storms.

The Environmental Assessment (EA) evaluates alternatives for tidal restoration of Muddy Creek and assesses the impacts that could result from the continuation of existing conditions (No Action Alternative) or implementation of two Action Alternatives. The EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the regulations of the Council on Environmental Quality for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and the implementing regulations (36 CFR 900).

Under the Proposed Action, existing undersized culverts at the Massachusetts Route 28 crossing of Muddy Creek will be replaced with a 22-foot-wide open channel within a 94-foot-long single-span bridge to fully restore tidal exchange between Pleasant Bay and Muddy Creek. Re-establishing natural tidal flow will restore the primary ecological processes that shape and sustain coastal wetlands, restoring Muddy Creek from a degraded brackish wetland to a fully functional tidal wetland, benefiting native salt marsh plant species, fish and shellfish populations, fish passage, instream habitat, and water quality, while concurrently improving coastal community resilience to storms.

Under the No Action Alternative, the existing twin 3-foot-by-4-foot stone culverts would remain in place and no tidal restoration would occur. No improvements to tidal exchange and water salinity, and the subsequent colonization and restoration of estuarine wetland vegetation, would take place. The No Action Alternative would not improve passage for diadromous fish, shellfish habitat, or improve the degraded water quality, and enhanced public access to Muddy Creek would not be achieved. Additionally, ecological and infrastructure resiliency to future coastal storms would not occur.

Under Alternative 3, an earthen dike and sluiceway system would be reconstructed at the mid-point in the watershed to impound freshwater for the purposes of enhancing nitrogen attenuation. This approach would segregate Muddy Creek into an impounded freshwater wetland upper basin, and tidally influenced lower basin. The public's response to the segregation of Muddy Creek into two sub-basins, including nearby property owners, area conservation organizations, and some regulatory agencies, was overwhelmingly negative. This restoration approach was abandoned and therefore Alternative 3 was eliminated from further evaluation and consideration as a viable alternative.

The Proposed Action will have negligible, if any, impacts on air quality, soundscapes, land use, socioeconomics, energy resources, geology, lightscares, Indian Trust resources, scenic resources, and prime and unique farmlands or cultural resources pursuant to Section 106 of the National Historic Preservation Act (16 W.S.C. 470f).

The Service finds there will be no significant impacts resulting from the proposed restoration activities of the Project. The Proposed Action provides net benefits that far outweigh its potential impacts on the natural and human environment. Therefore, the Service concludes that a Finding of No Significant Impact be issued for the proposed Project.



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Date

Reference:
Environmental Assessment, dated July 2, 2015