HUDSON RIVER HABITAT RESTORATION,
Hudson River Basin, New York
Ecosystem Restoration Feasibility Study

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DESCRIPTION:The study area includes 125 miles of the Hudson River Federal channel from the Mario M. Cuomo Bridge to the federal lock and dam at Troy, NY. The reconnaissance study completed 30 April 1996 found there was federal interest for proceeding with the feasibility level analyses for navigation improvement measures and aquatic ecosystem restoration measure, including evaluation of eroding shorelines, degraded fish and wildlife habitat, impediments to fish passage, and flooding control measures.

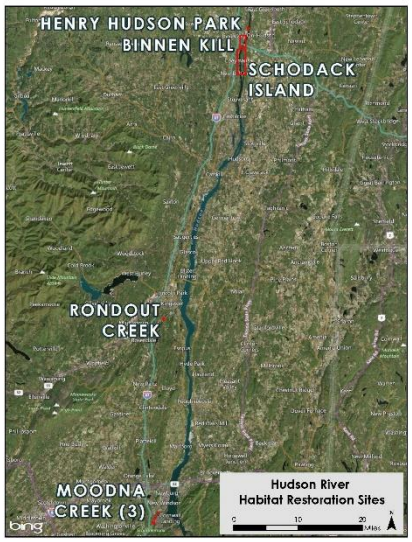
AUTHORIZATION: Section 551, Water Resource Development Act of 1996 (P.L. 104-303)

STUDY HISTORY: A feasibility cost-sharing agreement (FCSA) was executed in 1996 with New York State Department of Environmental Conservation (NYSDEC) and New York State Department of State (NYSDOS) serving as non-federal sponsors. In 2002, the study was suspended when focused restoration sites were found to be no longer available for construction and consensus was not reached on path forward with the sponsor.

NYSDEC Commissioner Joseph Martens requested that the study be resumed in July 2012. The sponsors' renewed interest resulted from the recommendations of the Hudson Raritan Estuary Feasibility Study and the publication of the Comprehensive Restoration Plan (CRP) with the intent to develop a complementary restoration plan for the upper 125 miles of the Hudson River. The local sponsors, NYSDEC and NYSDOS, formed the "Partners Restoring the Hudson" with more than 30 organizations, including The Nature Conservancy, Hudson Riverkeeper, and Scenic Hudson, with overwhelming support to advance the study.

The New York District and Partners, with support from the Congressional Delegation, were successful in resuming the Feasibility Study in 2016. The Study has been in the President's Budget since 2017 and received completion funds in FY19.

STUDY STATUS: Following study resumption, FY17 activities included the development of restoration goals and objectives, evaluation of baseline conditions and identification of restoration opportunities. A total of 1800 restoration opportunities were identified through Geographic Information System [GIS] analysis and nomination during municipality outreach meetings hosted by TNC, "Partners Restoring the Hudson" and NYSDEC. Sites were screened and prioritized in order to advance sites that provided the maximum ecological benefits meeting restoration goals. A total of twelve sites were selected for further evaluation and alternative development which included restoration of side-channels, wetlands, shorelines and aquatic organism passage (AOP). The Alternatives Milestone was held in July 2017.



FY18 activities included field reconnaissance (September/ December 2017) at 12 sites followed by more detailed field sampling in summer of 2018 at Binnen Kill, Schodack Island (side channels/wetlands/ mosaic habitat), Henry Hudson Park and Charles Rider Park (shoreline restoration) and Rondout Creek and Moodna Creek (AOPs) (including ecological functional assessments, shoreline profiles and tide data). In addition, engineering designs, quantification of benefits and cost, and Cost Effectiveness/Incremental Cost Analysis were completed. The Tentatively Selected Plan (TSP) milestone, held on 18 December 2018, achieved concurrence on the proposed plan which included restoration at five sites within three restoration categories for approximately $98.4 Million.

The Draft Integrated Feasibility Report and Environmental Assessment was released for public review in June 2019 and the Agency Decision Milestone was held on October 8, 2019. Three of the five sites were approved as the Recommended Plan will be evaluated further for final feasibility analysis for a total project first cost (2019$) of $37,123,280. Binnen Kill restoration and the removal of Eddyville Dam were deleted from the recommendation due to lack of landowner support and public opposition.

Category	Site	Recommended Plan Restoration Description
Shoreline Restoration	Henry Hudson Park	▪ Tidal wetland creation (3.8 acres) ▪ Replacement of the eroding hardened shoreline with a vegetated rip/rap living shoreline
Mosaic Habitat/Side Channels	Schodack Island	▪ Side channel and tidal wetland corridor (9.1 acres) ▪ Tidal wetland restoration (19.8 acres)
Tributary Connections/ Aquatic Organism Passage (AOP)	Moodna Creek	▪ Utility (barrier 1): Removal ▪ Firth Cliff Dam (barrier 2): Dam Removal ▪ Orr's Mill Dam (barrier 3): Partial Dam Removal (Collectively, 7.8 miles of upstream habitat)
Total		**1 Side Channel (9 acres); Wetlands (24 acres); and Barrier removal (opening almost 8 miles of river habitat)**

STUDY COST: Total Estimated Study Cost: $4,915,000
Reconnaissance Study (Federal): $525,000
Feasibility Phase (Federal): $2,195,000 (Post Resumption- $ 1,650,000)
Feasibility Phase (Non-Federal): $2,195,000 (Post Resumption- $1,650,000)

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CONGRESSIONAL INFORMATION: Senator Charles E. Schumer (NY) and Senator Kirsten Gillibrand (NY); Representatives Nita Lowey (NY-17), Sean Patrick Maloney (NY-18), Antonio Delgado (NY-19) and Paul Tonko (NY-20)

As of November 2019