EFH ASSESSMENT WORKSHEET

General Project Information

Date Submitted: September 3, 2020

Project/Application Number:

Project Name: Hudson River Habitat Restoration - Schodack Island

Project Sponsor/Applicant: U. S. Army Corps of Engineers - New York District (District)

Federal Action Agency (if state agency acting as delegated):

Fast-41 or One Federal Decision Project: ☐ Yes ☑ No

Action Agency Contact Name: Matthew Voisine

Contact Phone: 917.790.8718 Contact Email: matthew.voisine@usace.army.mil

Latitude: 42.495322 Longitude: -73.779045

Address, City/Town, State:

Schodack, New York

Body of Water: Hudson River and Schodack Creek

Project Purpose:

Improve ecological resources in the Hudson River basin from the Districts navigation mission.

Project Description:

See attachment 3

Anticipated Duration of In-Water Work or Start/End Dates:

2032/2033

Habitat Description

EFH includes the biological, chemical, and physical components of the habitat. This includes the substrate and associated biological resources (e.g., benthic organisms, submerged aquatic vegetation, shellfish beds, salt marsh wetlands), the water column, and prey species.

Is the project in designated EFH[2]? ☑ Yes ☐ No

Is the project in designated HAPC[2]? ☐ Yes ☑ No

Is this coordination under FWCA only? ☐ Yes ☑ No

Total area of impact to EFH (indicate sq ft or acres): 19 acres

Total area of impact to HAPC (indicate sq ft or acres): 0 acres

Current water depths: 0-3 feet Salinity: fresh Water temperature range: 29.4 - 0.0°C

Sediment characteristics[3]: mud and sand

What habitat types are in or adjacent to the project area and will they be permanently impacted? Select all that apply. Indicate if impacts will be temporary, if site will be restored, or if permanent conversion of habitat will occur. A project may occur in overlapping habitat types.

	Habitat Type	**Total impact (sq ft/acres)**	**Impacts are temporary**	**Restored to pre-existing conditions**	**Permanent conversion of all or part of habitat**
☐	Marine				
☐	Estuarine				
☑	Riverine (tidal)	0.2 ac	yes	no	no
☐	Riverine (non-tidal)				
☐	Intertidal				
☐	Subtidal				
☐	Water column				
☑	Salt marsh/ Wetland (tidal)	18 ac	yes	no	no
☐	Wetland (non-tidal)				

[2] Use the tables on pages 7-9 to list species with designated EFH or the type of designated HAPC present.
[3] The level of detail is dependent on your project – e.g., a grain size analysis may be necessary for dredging.

	Habitat Type	Total impact (sq ft/acres)	Impacts are temporary	Restored to pre-existing conditions	Permanent conversion of all or part of habitat
☐	Rocky/hard bottom[4]:				
☐	Sand				
☐	Shellfish beds or oyster reefs				
☐	Mudflats				
☐	Submerged aquatic vegetation (SAV)[5], macroalgae, epifauna				
☐	Diadromous fish (migratory or spawning habitat)				

Indicate type(s) of rocky/hard bottom habitat (pebble, cobble, boulder, bedrock outcrop/ledge) and species of SAV:

none

Project Effects

Select all that apply	Project Type/Category
☐	Hatchery or Aquaculture
☐	Agriculture
☐	Forestry
☐	Military (e.g., acoustic testing, training exercises)
☐	Mining (e.g., sand, gravel)
☑	Restoration or fish/wildlife enhancement (e.g., fish passage, wetlands, beach renourishment, mitigation bank/ILF creation)

[4] Indicate type(s). The type(s) of rocky habitat will help you determine if the area is cod HAPC.
[5] Indicate species. Provide a copy of the SAV report and survey conducted at the site, if applicable.

Select all that apply	Project Type/Category
☑	Infrastructure/transportation (e.g., culvert construction, bridge repair, highway, port)
☐	Energy development/use
☐	Water quality (e.g., TMDL, wastewater, sediment remediation)
☑	Dredging/excavation and disposal
☐	Piers, ramps, floats, and other structures
☐	Bank/shoreline stabilization (e.g., living shoreline, groin, breakwater, bulkhead)
☐	Survey (e.g., geotechnical, geophysical, habitat, fisheries)
☐	Other

Select all that apply	Potential Stressors Caused by the Activity	Select all that apply and if temporary or permanent		Habitat alterations caused by the activity
		Temp	Perm	
☐	Underwater noise			
☑	Water quality/turbidity/ contaminant release	☐	☐	Water depth change
☐	Vessel traffic/barge grounding	☐	☐	Tidal flow change
☐	Impingement/entrainment[6]	☐	☐	Fill
☐	Prevent fish passage/spawning	☐	☐	Habitat type conversion
☐	Benthic community disturbance	☑	☐	Other: Turbdity
☐	Impacts to prey species	☑	☐	Other: Turbdity

[6] Entrainment is the voluntary or involuntary movement of aquatic organisms from a water body into a surface diversion or through, under, or around screens and results in the loss of the organisms from the population. Impingement is the involuntary contact and entrapment of aquatic organisms on the surface of intake screens caused when the approach velocity exceeds the swimming capability of the organism.

Details: project impacts and mitigation

The level of detail that you provide should be commensurate with the magnitude of impacts associated with the proposed project. Attach supplemental information if necessary.

Describe how the project would impact each of the habitat types selected above. Include temporary and permanent impact descriptions and direct and indirect impacts.

In the short-term, implementing the Plan would result in negligible adverse impacts on water quality and wetlands due to increases in turbidity during the construction. No adverse permanent impacts are anticipated. In the long term, implementing the Plan would result in moderate beneficial impacts to water quality and wetlands through the creation of an approximately nine-acre side channel/tidal wetland corridor, and restoration of approximately 19.8 acres of tidal wetland.

What specific measures will be used to avoid impacts, including project design, turbidity controls, acoustic controls, and time of year restrictions? If impacts cannot be avoided, why not?

The District will follow NYSDEC guidance for In-Water and Riparian Management of Sedi

What specific measures will be used to minimize impacts?

Erosion and sediment control practices would be implemented to minimize the deposition

Is compensatory mitigation proposed? ☐ Yes ☑ No

If no, why not? If yes, describe plans for mitigation and how this will offset impacts to EFH. Include a conceptual compensatory mitigation and monitoring plan, if applicable.

Mitigation is not necessary because impacts are anticipated to be beneficial and adverse

Federal Action Agency's EFH determination (select one)	
☐	There is no adverse effect[7] on EFH or EFH is not designated at the project site. EFH Consultation is not required. This is a FWCA-only request.
☑	The adverse effect[7] on EFH is not substantial. This means that the adverse effects are no more than minimal, temporary, or can be alleviated with minor project modifications or conservation recommendations. This is a request for an abbreviated EFH consultation.
☐	The adverse effect[7] on EFH is substantial. This is a request for an expanded EFH consultation. We will provide more detailed information, including an alternatives analysis and NEPA document, if applicable.

EFH and HAPC designations[8]

Use the EFH mapper to determine if EFH may be present in the project area and enter all species and lifestages that have designated EFH. Optionally, you may review the EFH text descriptions linked to each species in the EFH mapper and use them to determine if the described habitat is present. We recommend this for larger projects to help you determine what your impacts are.

Species	EFH is designated/mapped for:				Habitat present based on text description (optional)
	EFH: eggs	EFH: larvae	EFH: juvenile	EFH: adults/ spawning adults	
Winter Flounder	☑	☑	☑	☑	☐
Little Skate	☐	☐	☑	☑	☐
Atlantic Herring	☐	☑	☑	☑	☐
Red Hake	☑	☑	☑	☑	☐

[7] An **adverse effect** is any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

[8] Within the Greater Atlantic Region, EFH has been designated by the New England, Mid-Atlantic, and South Atlantic Fisheries Management Councils and NOAA Fisheries.

Species	EFH is designated/mapped for:				Habitat present based on text description (optional)
	EFH: eggs	EFH: larvae	EFH: juvenile	EFH: adults/ spawning adults	
Windowpane Flounder	✔	✔	✔	✔	☐
Winter Skate	☐	☐	✔	✔	☐
Clearnose Skate	☐	☐	✔	✔	☐
Longfin Inshore Squid	✔	☐	☐	☐	☐
Bluefish	☐	☐	✔	✔	☐
Atlantic Butterfish	☐	✔	☐	☐	☐
Summer Flounder	☐	✔	✔	✔	☐
	☐	☐	☐	☐	☐
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HAPCs

Select all that are in your action area.

☐	Summer flounder: SAV[9]	☐	Alvin & Atlantis Canyons
☐	Sandbar shark	☐	Baltimore Canyon
☐	Sand Tiger Shark (Delaware Bay)	☐	Bear Seamount
☐	Sand Tiger Shark (Plymouth-Duxbury-Kingston Bay)	☐	Heezen Canyon
☐	Inshore 20m Juvenile Cod	☐	Hudson Canyon
☐	Great South Channel Juvenile Cod	☐	Hydrographer Canyon
☐	Northern Edge Juvenile Cod	☐	Jeffreys & Stellwagen
☐	Lydonia Canyon	☐	Lydonia, Gilbert & Oceanographer Canyons
☐	Norfolk Canyon (Mid-Atlantic)	☐	Norfolk Canyon (New England)
☐	Oceanographer Canyon	☐	Retriever Seamount
☐	Veatch Canyon (Mid-Atlantic)	☐	Toms, Middle Toms & Hendrickson Canyons
☐	Veatch Canyon (New England)	☐	Washington Canyon
☐	Cashes Ledge	☐	Wilmington Canyon

[9] Summer flounder HAPC is defined as all native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, within adult and juvenile summer flounder EFH. In locations where native species have been eliminated from an area, then exotic species are included. Use local information to determine the locations of HAPC.

Schodack Island Project Description

At Schodack Island on the eastern shore of the Hudson River in Schodack, New York, the plan consists of tidal wetland restoration and side channel restoration with a tidal wetland corridor (Figure 3-1).

Tidal Wetland Restoration North
Approximately 2.82 acres of existing tidal habitat, dominated by invasive species such as common reed, would be treated with an approved aquatic herbicide and planted with native plant species.

Tidal Wetland Restoration & Conversion to Side Channel Connection
Approximately 0.84 acres of existing tidal habitat, dominated by invasive species such as common reed, would be treated and planted with native plant species. Additionally, grading would occur to convert wetland to a side channel connection point, which would facilitate the conveyance of flow. The shoreline would be stabilized as necessary to accommodate new flows.

Tidal Wetland Restoration South
Approximately 16.23 acres of existing tidal habitat, dominated by invasive species such as common reed, would be treated. Minor grading would expand the existing tidal channel to accommodate increased flows with the proposed side channel connection. Fringe wetlands would be graded as necessary to stabilize the wetland and native vegetation would be planted.

Side Channel and Tidal Wetland Corridor Restoration
Approximately 7.64 acres of side channel and wetland corridor would be restored (Figure 3-2). A side channel would be excavated in areas of historic fill placement to hydrologically reconnect the upstream end of Schodack Creek with the Hudson River. Currently, Schodack Creek is only connected to the Hudson River at its downstream end. The channel would convey flow during low tide and higher water levels providing refuge to aquatic species during increased river velocities. A 400-foot tidal wetland corridor would be established adjacent to the channel. To accommodate local vehicular access to the southern portion of the island, the channel would be spanned by a road crossing with a rectangular reinforced box culvert (Figure 3-3). The existing ski trail would also be redirected to this road crossing. The channel would have a 20-foot width and an invert elevation of -2.00 feet and transition to tidal wetland, based on 2027 tide levels, which would range in elevation from elevation 1.5 to 4.00 feet and then transition to riparian vegetation. The tidal wetland would be dominated by a scrub/shrub wetland community. The riparian vegetation would transition to existing grade at a maximum slope of 3 feet horizontal to 1 foot vertical.

Excavated soil from each restoration area would be disposed of at the dredged material placement site on Houghtaling Island, New Baltimore, NY.

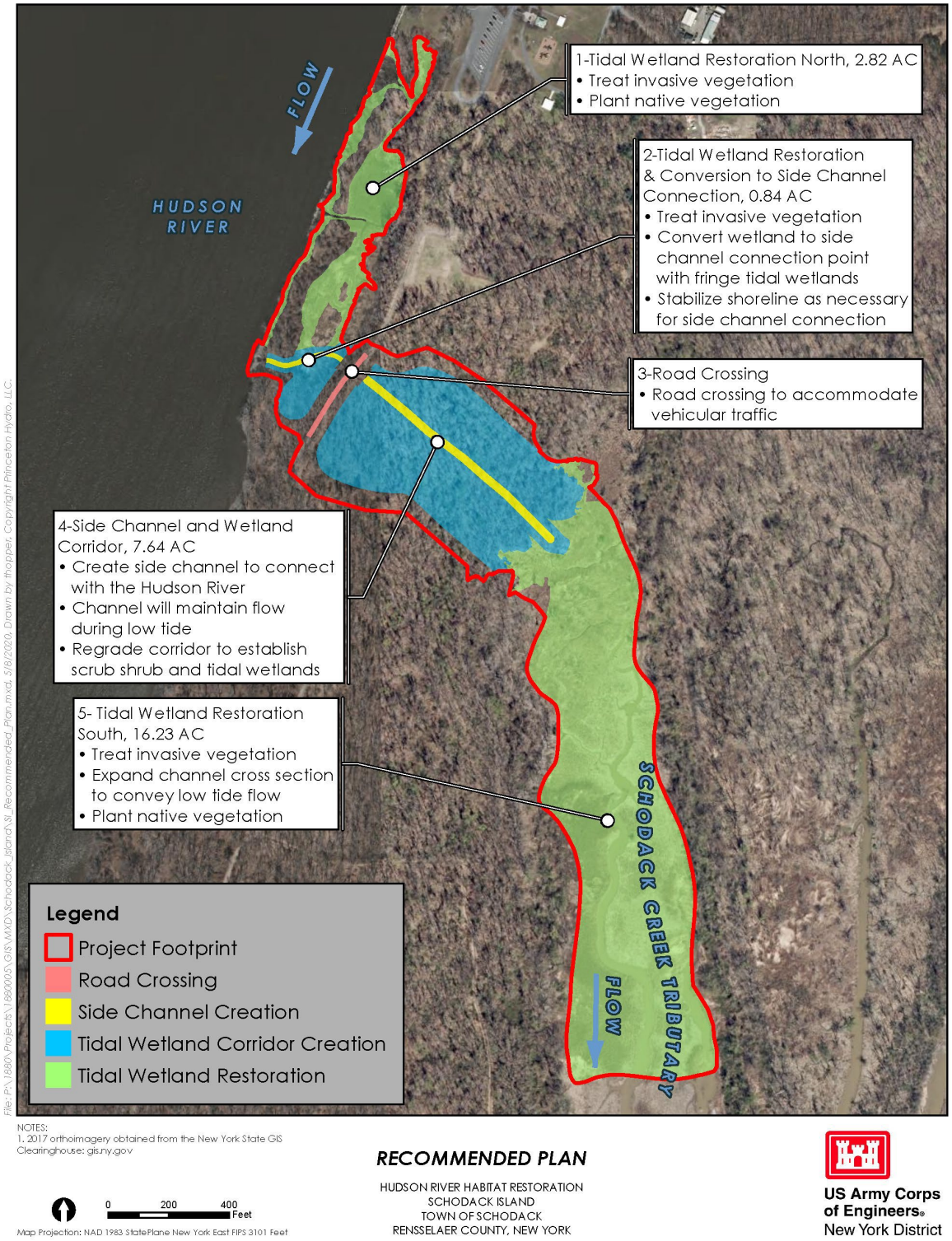

Figure 3-1: Recommended Plan at Schodack Island on the Hudson River in Schodack, NY.

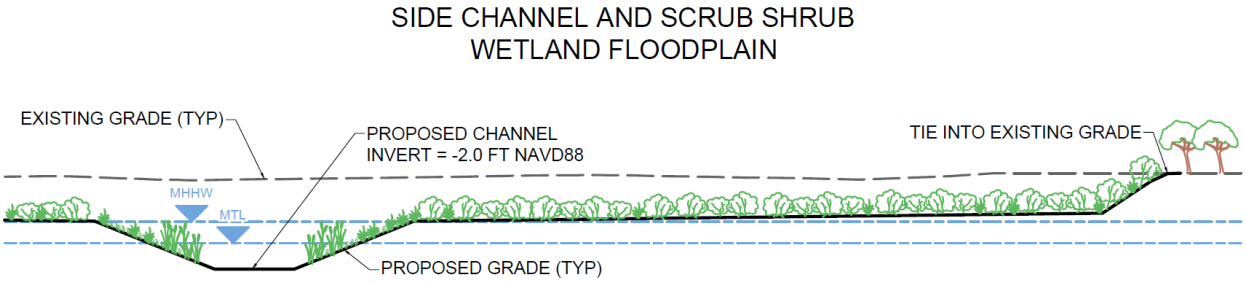

Figure 3-2: Schodack Island Side Channel Cross-Section (Typical).

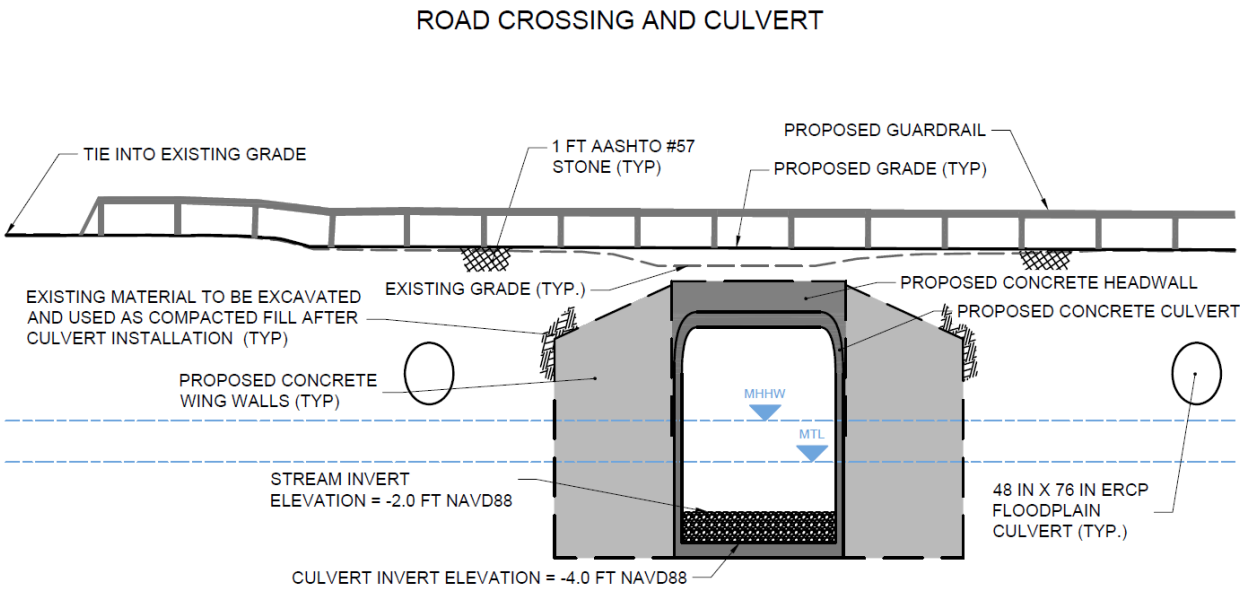

Figure 3-3: Schodack Island Road Crossing and Culvert Cross-Section.

Federal Interagency Comment Form

PROJECT: U. S. Army Corps of Engineers New York District
Hudson River Habitat Restoration, Schodack Island

APPL. NUMBER: N/A

Commenting Agency: NOAA Fisheries HCD

Project Manager: Matthew Voisine

Waterway: Hudson River and Schodack Creek

Activity: Tidal wetlands and side channel restoration, which includes removal of invasive species, native planting, minor grading and shoreline stabilization to convey flow, and removal of historic fill to hydrologically reconnect Schodack Creek with the Hudson River. Additionally, construct a road crossing with a box channel to span the channel to accommodate local vehicular traffic.

ESSENTIAL FISH HABITAT (EFH)
We fully support the Hudson River Habitat Restoration Ecosystem Restoration Plan, which includes the restoration of tidal wetlands and channels along Schodack Creek and the Hudson River. We provide the following EFH conservation recommendations for activities that may adversely affect EFH.

ESSENTIAL FISH HABITAT CONSERVATION RECOMMENDATIONS: (Note: EFH CRs require a response from the federal action agency within 30 days of receipt or 10 days before a permit is issued if CRs are not included as a special condition of the permit. In addition, a distinct and further EFH consultation must be reinitiated pursuant to 50 CRF 600.920 (j) if new information becomes available, or if the project is revised in such a manner that affects the basis for the above EFH determination or EFH conservation recommendations.)

1. Avoid sediment generating activities such as side channel excavation and grading between March 1 and June 30 to minimize adverse effects to anadromous fish migration.
2. Provide us a copy of the planting plan, which incorporates restoration and grading and planting materials.
3. Develop a monitoring and maintenance plan to document success, identify if corrective actions are needed, and to maintain the integrity and health of the wetland restoration project.

FISH AND WILDLIFE COORDINATION ACT COMMENTS
See comments above.

ENDANGERED SPECIES
Threatened or endangered species under the jurisdiction of NMFS may be present in the project area. The federal action agency will be responsible for determining whether the proposed action may affect listed species. If they determine that the proposed action may affect a listed species, they should submit their determination of effects, along with justification and a request for concurrence to the attention of the Section 7 Coordinator, NMFS, Greater Atlantic Regional Fisheries Office, Protected Resources Division, 55 Great Republic Drive, Gloucester, MA 01930 or nmfs.gar.esa.section7@noaa.gov. If you have any questions regarding these comments, please contact Peter Johnsen (978-282-8416; Peter.B.Johnsen@noaa.gov).

Other
Provide a copy of permit when issued.

SIGNATURE: _____ DATE: 10/2/20