Attachment 5

Breakneck Connector and Bridge Project

Essential Fish Habitat Assessment

NOAA Fisheries Greater Atlantic Regional Fisheries Office Essential Fish Habitat (EFH) Assessment & Fish and Wildlife Coordination Act (FWCA) Consultation Worksheet

August 2021 rev.

Authorities

The Magnuson Stevens Fishery Conservation and Management Act (MSA) requires federal agencies to consult with NOAA Fisheries on any action or proposed action authorized, funded, or undertaken by such agency that may adversely affect essential fish habitat (EFH) identified under the MSA. This process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in the consultation process.

The Fish and Wildlife Coordination Act (FWCA) requires that all federal agencies consult with NOAA Fisheries when proposed actions might result in modifications to a natural stream or body of water. The FWCA also requires that federal agencies consider the effects that these projects would have on fish and wildlife and must also provide for improvement of these resources. Under the FWCA, we work to protect, conserve and enhance species and habitats for a wide range of aquatic resources such as shellfish, diadromous species, and other commercially and recreationally important species that are not federally managed and do not have designated EFH.

It is important to note that these consultations take place between NOAA Fisheries and federal action agencies. **As a result, EFH assessments, including this worksheet, must be provided to us by the federal agency, not by permit applicants or consultants.**

Use of the Worksheet

This worksheet can serve as an EFH assessment for **Abbreviated EFH Consultations**, and as a means to provide information on potential effects to other NOAA trust resources considered under the FWCA. An abbreviated consultation allows us to determine quickly whether, and to what degree, a federal action may adversely affect EFH. Abbreviated consultation procedures can be used when federal actions do not have the potential to cause substantial adverse effects on EFH and when adverse effects could be alleviated through minor modifications.

The intent of the EFH worksheet is to provide a guide for determining the information needed to fully assess the effects of a proposed action on EFH. In addition, the worksheet may be used as a tool to assist you in developing a more comprehensive EFH assessment for larger projects that may have more substantial adverse effects to EFH. However, for large, complex projects that have the potential for significant adverse effects, an **Expanded EFH Consultation** may be warranted and the use of this worksheet alone is not appropriate as your EFH assessment.

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.

Consultation under the MSA is not required if there is no adverse effect on EFH or if no EFH has been designated in the project area. However, because the definition of "adverse effect" is very broad, most in-water work will result in some level of adverse effect requiring consultation with us, even if the impact is temporary or the overall result of the project is habitat restoration or enhancement. It is important to remember that an adverse effect determination is a trigger to consult with us. It does not mean that a project cannot proceed as proposed, or that project modifications are necessary. An adverse effect determination under the EFH provisions of the MSA simply means that the effects of the proposed action on EFH must be evaluated to determine if there are ways to avoid, minimize, or offset adverse effects. Additional details on EFH consultations, tools, and resources, including frequently asked questions can be found on our website.

Instructions

This worksheet should be used as your EFH assessment for **Abbreviated EFH Consultations** or as a guide to develop your EFH assessment. It is not appropriate to use this worksheet as your EFH assessment for large, complex projects, or those requiring an Expanded EFH Consultation.

When completed fully and with sufficient information to clearly describe the activities proposed, habitats affected, and project impacts, as well as the measures taken to avoid, minimize or offset any unavoidable adverse effects, this worksheet provides us with required components of an EFH assessment including:

1. A description of the proposed action.
2. An analysis of the potential adverse effects on EFH and the federally managed species.
3. The federal agency's conclusions regarding the effects of the action on EFH.
4. Proposed mitigation, if applicable.

When completing this worksheet and submitting information to us, it is important to ensure that sufficient information is provided to clearly describe the proposed project and the activities proposed. At a minimum, this should include the public notice (if applicable) or project application and project plans showing:

- location map of the project site with area of impact.
- existing and proposed conditions.
- all in-water work and the location of all proposed structures and/or fill.
- all waters of the U.S. on the project site with mean low water (MLW), mean high water (MHW), high tide line (HTL), and water depths clearly marked.
- Habitat Areas of Particular Concern (HAPCs).
- sensitive habitats mapped, including special aquatic sites (submerged aquatic vegetation, saltmarsh, mudflats, riffles and pools, coral reefs, and sanctuaries and refuges), hard bottom or natural rocky habitat areas, and shellfish beds.
- site photographs, if available.

Your analysis of effects **should focus on impacts that reduce the quality and/or quantity of the habitat or result in conversion to a different habitat type** for all life stages of species with designated EFH within the action area. Simply stating that fish will move away or that the project

will only affect a small percentage of the overall population is not a sufficient analysis of the effects of an action on EFH. Also, since the intent of the EFH consultation is to evaluate the direct, indirect, individual and cumulative effects of a particular federal action on EFH and to identify options to avoid, minimize or offset the adverse effects of that action, is it not appropriate to conclude that an impact is minimal just because the area affected is a small percentage of the total area of EFH designated. The focus of the consultation is to reduce impacts resulting from the activities evaluated in the assessment. Similarly, a large area of distribution or range of the fish species is also not appropriate rationale for concluding the impacts of a particular project are minimal.

Use the information on the our EFH consultation website and NOAA's EFH Mapper to complete this worksheet. The mapper is a useful tool for viewing the spatial distribution of designated EFH and HAPCs. Because summer flounder HAPC (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") does not have region-wide mapping, local sources and on-site surveys may be needed to identify submerged aquatic vegetation beds within the project area. The full designations for each species may be viewed as PDF links provided for each species within the Mapper, or via our website links to the New England Fishery Management Councils Omnibus Habitat Amendment 2 (Omnibus EFH Amendment), the Mid-Atlantic Fishery Management Councils FMPs (MAMFC - Fish Habitat), or the Highly Migratory Species website. Additional information on species specific life histories can be found in the EFH source documents accessible through the Habitat and Ecosystem Services Division website. This information can be useful in evaluating the effects of a proposed action. Habitat and Ecosystem Services Division (HESD) staff have also developed a technical memorandum *Impacts to Marine Fisheries Habitat from Non-fishing Activities in the Northeastern United States*, NOAA Technical Memorandum NMFS-NE-209 to assist in evaluating the effects of non-fishing activities on EFH. If you have questions, please contact the HESD staff member in your area to assist you.

Federal agencies or their non-federal designated lead agency should email the completed worksheet and necessary attachments to the HESD New England (ME, NH, MA, CT, RI) or Mid- Atlantic (NY, NJ, PA, DE, MD, VA) Branch Chief and the regional biologist listed on the Contact Regional Office Staff section on our EFH consultation website and listed below.

We will provide our EFH conservation recommendations under the MSA, and recommendations under the FWCA, as appropriate, within 30 days of receipt of a **complete** EFH assessment for an abbreviated consultation. Please ensure that the EFH worksheet is completed in full and includes detail to minimize delays in completing the consultation. If we are unable to assess potential impacts based on the information provided, we may request additional information necessary to assess the effects of the proposed action on our trust resources before we can begin a consultation. If the worksheet is not completely filled out, it may be returned to you for completion. **The EFH consultation and our response clock does not begin until we have sufficient information upon which to consult**.

If this worksheet is not used, you should include all the information required to complete this worksheet in your EFH assessment. The level of detail that you provide should be commensurate with the magnitude of impacts associated with the proposed project. You may need to prepare a more detailed EFH assessment for more substantial or complex projects to fully characterize the effects of the project and the avoidance and minimization of impacts to EFH. The format of the EFH worksheet may not be sufficient to incorporate the extent of detail required for large-scale projects, and a separate EFH assessment may be required.

Regardless of the format, you should include an analysis as outlined in this worksheet for an expanded EFH assessment, along with any additional necessary information including:

- the results of on-site inspections to evaluate habitat and site-specific effects.
- the views of recognized experts on habitat or the species that may be affected.
- a review of pertinent literature and related information.
- an analysis of alternatives that could avoid or minimize adverse effects on EFH.

For these larger scale projects, interagency coordination meetings should be scheduled to discuss the contents of the EFH consultation and the site-specific information that may be needed in order to initiate the consultation.

Please contact our Greater Atlantic Regional Fisheries Office, Protected Resources Division regarding potential impacts to marine mammals or threatened and endangered species and the appropriate consultation procedures.

HESD Contacts*

New England - ME, NH, MA, RI, CT

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***Please check for the most current staffing list on our contact us page prior to submitting your assessment.**

EFH Assessment Worksheet rev. August 2021

Please read and follow all of the directions provided when filling out this form.

1. General Project Information

Date Submitted:

Project/Application Number:

Project Name: Breakneck Connector and Bridge Project

Project Sponsor/Applicant: Hudson Highlands Fjord Trail, Inc.

Federal Action Agency (or state agency if the federal agency has provided written notice delegating the authority[1]): U.S. Army Corps of Engineers

Fast-41: Yes ☐ No ☑

Action Agency Contact Name:

Contact Phone: Contact Email:

Address, City/Town, State:

2. Project Description

[2]Latitude: 41 degrees 26' 50.5 N Longitude: 73 degrees 58' 49.4 W

Body of Water (e.g., HUC 6 name): Hudson River

Project Purpose:

Formalize social trails that are currently in use; improve traffic, pedestrian, cyclist, and parking safety; enhance access by building trails and parking areas that meet accessibility standards

Project Description:

Project is 0.58-mile publicly accessible shared-use trail that includes a new 445LF bridge over the Metro-North Railroad (MNR) tracks, parking areas along NYS Route 9D, trail connections to existing trails, and other upland components. Because heavy equipment is not permitted to cross the MNR tracks, construction of the western portion of the bridge will be supported by barges and delivery of equipment and materials by water. This will require 260LF of temporary shoreline stabilization comprising riprap atop geotextile to allow equipment to access the site from the barges. All riprap and geotextile temporarily placed below SHW will be removed at the end of bridge construction.

Anticipated Duration of In-Water Work including planned Start/End Dates and any seasonal restrictions proposed to be included in the schedule:

Shoreline stabilization installed over 4 weeks between 10/2024 and 11/2024, removed in July 2025; barges in use between June 2024 and July 2025 to support land-based work

[1] A federal agency may designate a non-Federal representative to conduct an EFH consultation by giving written notice of such designation to NMFS. If a non-federal representative is used, the Federal action agency remains ultimately responsible for compliance with sections 305(b)(2) and 305(b)(4)(B) of the Magnuson-Stevens Act. [2] Provide the decimal, or the degrees, minutes, seconds values for latitude and longitude using the World Geodetic System 1984 (WGS84) and negative degree values where applicable.

3. Site 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[3]? ☑ Yes ☐ No

Is the project in designated HAPC? ☑ Yes ☐ No

Does the project contain any Special Aquatic Sites[4]? ☐ Yes ☑ No

Is this coordination under FWCA only? ☐ Yes ☑ No

Total area of impact to EFH (indicate sq ft or acres): 1,100 sf

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

Current range of water depths at MLW	Salinity range (PPT):	Water temperature range (°F):
0 to 10 feet	< 5 ppt	32 to 80 F

[3]Use the tables in Sections 5 and 6 to list species within designated EFH or the type of designated HAPC present. See the worksheet instructions to find out where EFH and HAPC designations can be found. [4] Special aquatic sites (SAS) are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. They include sanctuaries and refuges, wetlands, mudflats, vegetated shallows, coral reefs, and riffle and pool complexes (40 CFR Subpart E). If the project area contains SAS (i.e. sanctuaries and refuges, wetlands, mudflats, vegetated shallows/SAV, coral reefs, and/or riffle and pool complexes, describe the SAS, species or habitat present, and area of impact.

4. Habitat Types

In the table below, select the location and type(s) for each habitat your project overlaps. For each habitat type selected, indicate the total area of expected impacts, then what portion of the total is expected to be temporary (less than 12 months) and what portion is expected to be permanent (habitat conversion), and if the portion of temporary impacts will be actively restored to pre- construction conditions by the project proponent or not. A project may overlap with multiple habitat types.

Habitat Location	Habitat Type	Total impacts ($lf/ft^2/ft^3$)	Temporary impacts ($lf/ft^2/ft^3$)	Permanent impacts ($lf/ft^2/ft^3$)	Restored to pre-existing conditions?*
Freshwater	Shore (unconsolidated)	260 LF	260 LF	0	Yes
Freshwater	Shore (unconsolidated)	1,100 sf	1,100 sf	0	Yes
Freshwater	Water column	126 CY	126 CY	0	Yes
Select one	Select One				Select one
Select one	Select One				Select one
Select one	Select One				Select one
					Select one
					Select one

*Restored to pre-existing conditions means that as part of the project, the temporary impacts will be actively restored,such as restoring the project elevations to pre-existing conditions and replanting. It does not include natural restoration or compensatory mitigation.

Submerged Aquatic Vegetation (SAV) Present?:

Yes: ☐ No: ☑

If the project area contains SAV, or has historically contained SAV, list SAV species and provide survey results including plans showing its location, years present and densities if available. Refer to Section 12 below to determine if local SAV mapping resources are available for your project area.

n/a

Sediment Characteristics:

The level of detail required is dependent on your project – e.g., a grain size analysis may be necessary for dredging. In addition, if the project area contains rocky/hard bottom habitat [6](pebble, cobble, boulder, bedrock outcrop/ledge) identified as Rocky (coral/rock), Substrate (cobble/gravel), or Substrate (rock) above, describe the composition of the habitat using the following table.

Substrate Type* (grain size)	Present at Site? (Y/N)	Approximate Percentage of Total Substrate on Site
Silt/Mud (<0.063mm)	Select one	
Sand (0.063-2mm)	Select one	
Rocky: Pebble/Gravel /Cobble(2-256mm)**	Select one	
Rocky: Boulder (256-4096mm)**	Select one	
Rocky: Coral	Select one	
Bedrock**	Select one	

[6]The type(s) of rocky habitat will help you determine if the area is cod HAPC.

* Grain sizes are based on Wentworth grain size classification scale for granules, pebbles, cobbles, and boulders.

** Sediment samples with a content of 10% or more of pebble-gravel-cobble and/or boulder in the top layer (6-12 inches) should be delineated and material with epifauna/macroalgae should be differentiated from bare pebble-gravel-cobble and boulder.

If no grain size analysis has been conducted, please provide a general description of the composition of the sediment. If available please attach images of the substrate.

Grain size analysis has not been conducted. Substrate in this portion of the Hudson River is generally a mixture of mud and sandy mud.

Diadromous Fish (migratory or spawning habitat- identify species under Section 10 below):

Yes: ☑ No: ☐

5. EFH and HAPC Designations

Within the Greater Atlantic Region, EFH has been designated by the New England, Mid-Atlantic, and South Atlantic Fisheries Management Councils and NOAA Fisheries. Use the EFH mapper to determine if EFH may be present in the project area and enter all species and life stages 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 at your project site. If the habitat characteristics described in the text descriptions do not exist at your site, you may be able to exclude some species or life stages from additional consideration. For example, the water depths at your site are shallower that those described in the text description for a particular species or life stage. We recommend this for larger projects to help you determine what your impacts are.

Species Present	EFH is designated/mapped for:				What is the source of the EFH information included?
	EFH: eggs	EFH: larvae	EFH: juvenile	EFH: adults/ spawning adults	
winter flounder	✔	✔	✔	✔	EFH Mapper c
little skate			✔	✔	EFH Mapper c
Atlantic herring		✔	✔	✔	EFH Mapper c
red hake	✔	✔	✔	✔	EFH Mapper c
windowpane flounder	✔	✔	✔	✔	EFH Mapper c
winter skate			✔	✔	EFH Mapper c
clearnose skate			✔	✔	EFH Mapper c
long-finned squid	✔				EFH Mapper c
bluefish			✔	✔	EFH Mapper c
Atlantic butterfish		✔			EFH Mapper c
summer flounder		✔	✔		EFH Mapper c

6. Habitat Areas of Particular Concern (HAPCs)

HAPCs are subsets of EFH that are important for long-term productivity of federally managed species. HAPCs merit special consideration based their ecological function (current or historic), sensitivity to human-induced degradation, stresses from development, and/or rarity of the habitat.While many HAPC designations have geographic boundaries, there are also habitat specific HAPC designations for certain species, see note below. Use the EFH mapper to identify HAPCs within your project area. Select all that apply.

☑	Summer flounder: SAV[7]	☐	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[8]	☐	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
☐	Atlantic Salmon		

[7] 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.

[8] The purpose of this HAPC is to recognize the importance of inshore areas to juvenile Atlantic cod. The coastal areas of the Gulf of Maine and Southern New England contain structurally complex rocky-bottom habitat that supports a wide variety of emergent epifauna and benthic invertebrates. Although this habitat type is not rare in the coastal Gulf of Maine, it provides two key ecological functions for juvenile cod: protection from predation, and readily available prey. See EFH mapper for links to text descriptions for HAPCs.

7. Activity Details

Select all that apply	Project Type/Category
☐	Agriculture
☐	Aquaculture - List species here:
☑	Bank/shoreline stabilization (e.g., living shoreline, groin, breakwater, bulkhead) Rock bank stabilization below SHW is temporary
☐	Beach renourishment
☐	Dredging/excavation
☐	Energy development/use e.g., hydropower, oil and gas, pipeline, transmission line, tidal or wave power, wind
☐	Fill
☐	Forestry
☐	Infrastructure/transportation (e.g., culvert construction, bridge repair, highway, port, railroad)
☐	Intake/outfall
☐	Military (e.g., acoustic testing, training exercises)
☐	Mining (e.g., sand, gravel)
☐	Overboard dredged material placement
☐	Piers, ramps, floats, and other structures
☐	Restoration or fish/wildlife enhancement (e.g., fish passage, wetlands, mitigation bank/ILF creation)
☐	Survey (e.g., geotechnical, geophysical, habitat, fisheries)
☐	Water quality (e.g., storm water drainage, NPDES, TMDL, wastewater, sediment remediation)
☐	Other:

8. Effects Evaluation

Select all that apply	Potential Stressors Caused by the Activity	Select all that apply and if temporary[9] or permanent		Habitat alterations caused by the activity
	Underwater noise	Temp	Perm	
☐	Water quality/turbidity/ contaminant release	☐	☐	Water depth change
☑	Vessel traffic/barge grounding	☐	☐	Tidal flow change
☐	Impingement/entrainment	☑	☐	Fill
☐	Prevent fish passage/spawning	☑	☐	Habitat type conversion
☑	Benthic community disturbance	☐	☐	Other:
☑	Impacts to prey species	☐	☐	Other:

[9] Temporary in this instance means during construction. [10] 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.

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Details - project impacts and mitigation

Briefly describe how the project would impact each of the habitat types selected above and the amount (i.e., acreage or sf) of each habitat impacted. Include temporary and permanent impact descriptions and direct and indirect impacts. For example, dredging has a direct impact on bottom sediments and associated benthic communities. The turbidity generated can result in a temporary impact to water quality which may have an indirect effect on some species and habitats such as winter flounder eggs, SAV or rocky habitats. 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.

The Project will result in the temporary loss of a maximum of 28 square feet of river bottom in the footprint of the spud piles used to secure the logistics barge near the bridge site and near the southbound MNR platform reconstruction site. It will also result in the temporary loss of 1,100 square feet and 126 cubic yards below SHW in the footprint of the temporary shoreline stabilization, which will comprise riprap armor stone placed on top of geotextile fabric. The shoreline stabilization will facilitate delivery of equipment, materials, and personnel to the construction site on the west side of the MNR tracks. The bridge structure over the tracks and the southbound MNR platform will also be constructed using barge-based equipment. The shoreline stabilization will be in place for about 10 months between October 2024 and July 2025, at which time all materials below SHW will be removed and there will be no permanent impacts to waters of the U.S. A full length turbidity curtain will be installed just offshore along the length of the shoreline stabilization and will remain in place until the bridge is fully constructed and upland work is completed in this location. All barges and support vessels will maintain separation from the river bottom at all times.

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

Removal of all shoreline stabilization materials below SHW following construction of the bridge. Full length turbidity curtain to be used along shoreline stabilization area for duration of construction. Barges and support vessels will maintain separation at all times. Spud piles for barges will be installed hydraulically and under self-weight to limit potential for impacts from underwater noise.

Is compensatory mitigation proposed? Yes ☐ No ☑

If compensatory mitigation is not proposed, why not? If yes, describe plans for compensatory mitigation (e.g. permittee responsible, mitigation bank, in-lieu fee) and how this will offset impacts to EFH and other aquatic resources. Include a proposed compensatory mitigation and monitoring plan as applicable.

The project will not result in permanent impacts to EFH

9. Effects of Climate Change

Effects of climate change should be included in the EFH assessment if the effects of climate change may amplify or exacerbate the adverse effects of the proposed action on EFH. Use the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCP) 8.5/high greenhouse gas emission scenario (IPCC 2014), at a minimum, to evaluate the future effects of climate change on the proposed projections. For sea level rise effects, use the intermediate-high and extreme scenario projections as defined in Sweet et al. (2017). For more information on climate change effects to species and habitats relative to NMFS trust resources, see Guidance for Integrating Climate Change Information in Greater Atlantic Region Habitat Conservation Division Consultation Processes.

1. Could species or habitats be adversely affected by the proposed action due to projected changes in the climate?If yes, please describe how:

No, the project will not result in long-term changes to water quality or habitat that could amplify the effects of climate change

2. Is the expected lifespan of the action greater than 10 years? If yes, please describe project lifespan:

Yes the design life of the project is greater than 10 years. The shoreline stabilization is temporary and will be in place for less than 1 year.

3. Is climate change currently affecting vulnerable species or habitats, and would the effects of a proposed action be amplified by climate change? If yes, please describe how:

The project will only result in short-term and localized changes to water quality, and the temporary footprint of the shoreline stabilization will not be amplified by climate change

4. Do the results of the assessment indicate the effects of the action on habitats and species will be amplified by climate change? If yes, please describe how:

No

5. Can adaptive management strategies (AMS) be integrated into the action to avoid or minimize adverse effects of the proposed action as a result of climate? If yes, please describe how:

n/a - project will not result in long-term adverse effects and will not amplify effects of climate change

10. Federal Agency Determination

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 documents, if applicable.

[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.

11. Fish and Wildlife Coordination Act

Under the FWCA, federal agencies are required to consult with us if actions that the authorize, fund, or undertake will result in modifications to a natural stream or body of water. Federal agencies are required to consider the effects these modifications may have on fish and wildlife resources, as well as provide for the improvement of those resources. Under this authority, we consider the effects of actions on NOAA-trust resources, such as anadromous fish, shellfish, crustaceans, or their habitats, that are not managed under a federal fisheries management plan. Some examples of other NOAA-trust resources are listed below. Some of these species, including diadromous fishes, serve as prey for a number of federally-managed species and are therefore considered a component of EFH pursuant to the MSA. We will be considering the effects of your project on these species and their habitats as part of the EFH/FWCA consultation process and may make recommendations to avoid, minimize or offset and adverse effects concurrently with our EFH conservation recommendations.

Please contact our Greater Atlantic Regional Fisheries Office, Protected Resources Division regarding potential impacts to marine mammals or species listed under the Endangered Species Act and the appropriate consultation procedures.

Fish and Wildlife Coordination Act Resources

Species known to occur at site (list others that may apply)	Describe habitat impact type (i.e., physical, chemical, or biological disruption of spawning and/or egg development habitat, juvenile nursery and/or adult feeding or migration habitat). Please note, impacts to federally listed species of fish, sea turtles, and marine mammals must be coordinated with the GARFO Protected Resources Division.
alewife	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
American eel	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
American shad	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
Atlantic menhaden	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
blue crab	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
blue mussel	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
blueback herring	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
Eastern oyster	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species. Oyster habitat is not known to occur near the project site.
horseshoe crab	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species. No spawning habitat onsite.
quahog	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
soft-shell clams	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
striped bass	Temporary sediment disturbance and habitat alteration are minor and will not significantly affect habitat for this species
other species:	
other species:	
other species:	

12. Useful Links

National Wetland Inventory Maps
EPA's National Estuary Program (NEP)
Northeast Regional Ocean Council (NROC) Data Portal
Mid-Atlantic Regional Council on the Ocean (MARCO) Data Portal

Resources by State

Maine
Maine Office of GIS Data Catalog
Town shellfish information including shellfish conservation area maps
State of Maine Shellfish Sanitation and Management
Eelgrass maps
Casco Bay Estuary Partnership
Maine GIS Stream Habitat Viewer

New Hampshire
NH Statewide GIS Clearinghouse, NH GRANIT
NH Coastal Viewer
State of NH Shellfish Program

Massachusetts
MA DMF Shellfish Sanitation and Management Program
MassGIS Data (Including Eelgrass Maps)
MA DMF Recommended TOY Restrictions Document Massachusetts
Bays National Estuary Program
Buzzards Bay National Estuary Program
Massachusetts Division of Marine Fisheries
Massachusetts Office of Coastal Zone Management

Rhode Island
RI Shellfish and Aquaculture
RI Shellfish Management Plan
RI Eelgrass Maps
Narragansett Bay Estuary Program
Rhode Island Division of Marine Fisheries
Rhode Island Coastal Resources Management Council

Connecticut

CT Bureau of Aquaculture

Natural Shellfish Beds in CT

Eelgrass Maps

Long Island Sound Study

CT GIS Resources

CT DEEP Office of Long Island Sound Programs and Fisheries

CT River Watershed Council

New York

Eelgrass Report

Peconic Estuary Program

NY/NJ Harbor Estuary Program

New York GIS Clearinghouse

New Jersey

Submerged Aquatic Vegetation Mapping

Barnegat Bay Partnership

NJ GeoWeb

NJ DEP Shellfish Maps

Pennsylvania

Delaware River Management Plan

PA DEP Coastal Resources Management Program

PA DEP GIS Mapping Tools

Delaware

Partnership for the Delaware Estuary

Center for Delaware Inland Bays

Delaware FirstMap

Maryland

Submerged Aquatic Vegetation Mapping

MERLIN (Maryland's Environmental Resources and Land Information Network)

Maryland Coastal Atlas

Maryland Coastal Bays Program

Virginia

VMRC Habitat Management Division

Submerged Aquatic Vegetation mapping

Attachment 6

Breakneck Connector and Bridge Project

GARFO ESA Section 7 – 2017 NLAA Program Verification Form

NOAA FISHERIES
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
Greater Atlantic Region

US Army Corps of Engineers

GARFO ESA Section 7: NLAA Program Verification Form

(Please submit a signed version of this form, together with any project plans, maps, supporting analyses, etc., to nmfs.gar.esa.section7@noaa.gov with "**USACE NLAA Program: [Application Number]**" in the subject line)

Section 1: General Project Details

Application Number:	
Reinitiation:	No
Applicant(s):	Hudson Highlands Fjord Trail, Inc.
Permit Type:	NWP
Anticipated project start date (e.g., 10/1/2020)	4/1/2024
Anticipated project end date (e.g., 12/31/2022 – if there is no permit expiration date, write "N/A")	7/31/2025

Project Type/Category (check all that apply to entire action):

☐	Aquaculture (shellfish) and artificial reef creation	☐	Mitigation (fish/wildlife enhancement or restoration)
☐	Dredging and disposal/beach nourishment	☐	Bank stabilization
☐	Piers, ramps, floats, and other structures	☑	If other, describe project type category: Temporary bank stabilization

Town/City:	Town of Fishkill	Zip:	12508
State:	New York	Water body:	Hudson River

Project/Action Description **and** Purpose (*include relevant permit conditions that are not captured elsewhere on form*):		
Project is a 0.58-mile publicly accessible shared-use trail that includes a new 445 LF bridge over the Metro-North Railroad (MNR) tracks, parking areas along NYS Route 9D, trail connections to existing trails, and other upland components. Because heavy equipment is not permitted to cross the MNR tracks, construction of the western portion of the bridge will be supported by barges and delivery of equipment and materials by water. This will require approximately 260 LF of temporary shoreline stabilization comprising riprap atop geotextile to allow equipment to access the site from barges. All riprap and geotextile temporarily placed below spring high water (SHW) will be removed at the end of bridge construction. The Project Site in its current state presents a safety hazard to the general public because it provides limited separation between the train tracks and hikers arriving at the site by car. The purpose of the Project is to formalize trails that are already in place and currently in use; improve safety where there are dangerous traffic, pedestrian, cyclist, and parking conditions; and enhance access for all persons by building trails and parking areas that meet generally accepted accessibility standards.		
Type of Bottom Habitat Modified:	Permanent/Temporary:	Area (acres):
Silt/Mud/Clay (freshwater)	Temporary	0.03
Select Type of Bottom Habitat	Select Permanent or Temporary	
Select Type of Bottom Habitat	Select Permanent or Temporary	
Project Latitude (e.g., 42.625884)	41.447360	
Project Longitude (e.g., -70.646114)	-73.980390	
Mean Low Water (MLW)(m)	0.53	
Mean High Water (MHW)(m)	-0.37	

Width (m) of water body in action area:	Stressor Category (stressor that extends furthest distance into water body – e.g., turbidity plume; sound pressure wave):	Max extent (m) of stressor into the water body:
942.00	Turbidity plume	91.00

Section 2: ESA-listed species and/or critical habitat in the action area:

☑	Atlantic sturgeon (all DPSs)	☐	Kemp's ridley sea turtle
☑	Atlantic sturgeon critical habitat Indicate which DPS : NYB	☐	Loggerhead sea turtle (NW Atlantic DPS)
☑	Shortnose sturgeon	☐	Leatherback sea turtle
☐	Atlantic salmon (GOM DPS)	☐	North Atlantic right whale
☐	Atlantic salmon critical habitat (GOM DPS)	☐	North Atlantic right whale critical habitat
☐	Green sea turtle (N. Atlantic DPS)	☐	Fin whale

* Please consult GARFO PRD's ESA Section 7 Mapper for ESA-listed species and critical habitat information for your action area at: https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-species-critical-habitat-information-maps-greater.

Section 3: NLAA Determination (check all applicable fields):
If the Project Design Criteria (PDC) is met, select Yes. If the PDC is not applicable (N/A) for your project (e.g., the stressor category is not included for your project activity, or for PDC 2, your project does not occur within the range of the GOM DPS of Atlantic salmon), select N/A. If the PDC is applicable, but is not met, leave both boxes blank and provide a justification for that PDC in Section 4.

a) GENERAL PDC			
Yes	N/A	PDC #	PDC Description
☑	☐	1.	No portion of the proposed action will individually or cumulatively have an adverse effect on ESA-listed species or designated critical habitat.
☑	☐	2.	No portion of the proposed action will occur in the tidally influenced portion of rivers/streams where Atlantic salmon presence is possible from April 10–November 7. **Note**: If the project will occur within the geographic range of the GOM DPS Atlantic salmon but their presence is not expected following the best available commercial scientific data, the work window does not need to be applied (include reference in project description).
☑	☐	3.	No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as spawning grounds as follows: i. Gulf of Maine: April 1–Aug. 31 ii. Southern New England/New York Bight: Mar. 15–Aug. 31 iii. Chesapeake Bay: March 15–July 1 and Sept. 15–Nov. 1 **Note**: If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval (include reference in project description).
☐	☐	4.	No portion of the proposed action that may affect shortnose or Atlantic sturgeon will occur in areas identified as overwintering grounds, where dense aggregations are known to occur, as follows: i. Gulf of Maine: Oct. 15–April 30 ii. Southern New England/ New York Bight: Nov. 1–Mar. 15 iii. Chesapeake Bay: Nov. 1–Mar. 15 **Note**: If river specific information exists that provides better or more refined time of year information, those dates may be substituted with NMFS approval (include reference in project description).
☐	☑	5.	Within designated Atlantic salmon critical habitat, no portion of the proposed action will affect spawning and rearing areas (PBFs 1-7).
☑	☐	6.	Within designated Atlantic sturgeon critical habitat, no work will affect hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters (i.e., 0.0-0.5 parts per thousand) (PBF 1).

Yes	N/A	PDC #	PDC Description
☑	☐	7.	Work will result in no or only temporary/short-term changes in water temperature, water flow, salinity, or dissolved oxygen levels.
☑	☐	8.	If ESA-listed species are (a) likely to pass through the action area at the time of year when project activities occur; and/or (b) the project will create an obstruction to passage when in-water work is completed, then a zone of passage (~50% of water body) with appropriate habitat for ESA-listed species (e.g., depth, water velocity, etc.) must be maintained (i.e., physical or biological stressors such as turbidity and sound pressure must not create barrier to passage).
☐	☑	9.	Any work in designated North Atlantic right whale critical habitat must have no effect on the physical and biological features (PBFs).
☑	☐	10.	The project will not adversely impact any submerged aquatic vegetation (SAV).
☑	☐	11.	No blasting or use of explosives will occur.

b) The following stressors are applicable to the action (check all that apply – use Stressor Category Table for guidance):

☐	Sound Pressure
☐	Impingement/Entrapment/Capture
☑	Turbidity/Water Quality
☐	Entanglement (Aquaculture)
☑	Habitat Modification
☑	Vessel Traffic

	Stressor Category					
Activity Category	Sound Pressure	Impingement/ Entrapment/ Capture	Turbidity/ Water Quality	Entanglement	Habitat Mod.	Vessel Traffic
Aquaculture (shellfish) and artificial reef creation	N	N	Y	Y	Y	Y
Dredging and disposal/beach nourishment	N	Y	Y	N	Y	Y

	Stressor Category					
Activity Category	Sound Pressure	Impingement/ Entrapment/ Capture	Turbidity/ Water Quality	Entanglement	Habitat Mod.	Vessel Traffic
Piers, ramps, floats, and other structures	Y	N	Y	N	Y	Y
Transportation and development (e.g., culvert construction, bridge repair)	Y	N	Y	N	Y	Y
Mitigation (fish/wildlife enhancement or restoration)	N	N	Y	N	Y	Y
Bank stabilization and dam maintenance	Y	N	Y	N	Y	Y

c) SOUND PRESSURE PDC

Information for Pile Driving:
If your project includes non-timber piles*, please attach your calculation to this verification form showing that the noise is below the injury thresholds of ESA-listed species in the action area. The GARFO Acoustic Tool is available as one source, should you not have other information:

https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-consultation-technical-guidance-greater-atlantic

*Sound pressure effects from timber and steel sheet piles were analyzed in the NLAA programmatic consultation, so no additional acoustic information is necessary.

	Pile material	Pile diameter/width (inches)	Number of piles	Installation method
a)	Select pile material			Select installation method
b)	Select pile material			Select installation method
c)	Select pile material			Select installation method
d)	Select pile material			Select installation method

Yes	N/A	PDC #	PDC Description
☐	☑	12.	If pile driving is occurring during a time of year when ESA-listed species may be present, and the anticipated noise is above the behavioral noise threshold, a "soft start" is required to allow animals an opportunity to leave the project vicinity before sound pressure levels increase. *In addition to using a soft start at the beginning of the work day for pile driving, one must also be used at any time following cessation of pile driving for a period of 30 minutes or longer.* For impact pile driving: pile driving will commence with an initial set of three strikes by the hammer at 40% energy, followed by a one minute wait period, then two subsequent 3-strike sets at 40% energy, with one-minute waiting periods, before initiating continuous impact driving. For vibratory pile installation: pile driving will be initiated for 15 seconds at reduced energy followed by a one-minute waiting period. This sequence of 15 seconds of reduced energy driving, one-minute waiting period will be repeated two additional times, followed immediately by pile-driving at full rate and energy.
☐	☑	13.	Any new pile supported structure must involve the installation of ≤ 50 piles (below MHW).
☐	☑	14.	All underwater noise (pressure) is below (<) the physiological/injury noise threshold for ESA-species in the action area.

d) IMPINGEMENT/ENTRAINMENT/CAPTURE PDC

Information for Dredging/Disposal:			
Type of dredge:	Select type of dredge		
Maintenance dredging?:	Select Yes or No	If "Yes", how many acres?	
If maintenance, when was the last dredge cycle?			
New dredging:	Select Yes or No	If "Yes", how many acres?	
Estimated number of dredging events covered by permit:			
ESA-species exclusion measures required (e.g., cofferdam, turbidity curtain):	Select Yes or No		
If no exclusion measures required, explain why:	Select reason why no exclusion measures are required		
Information for Intake Structures:			
Mesh screen size (mm) for temporary intake:			

Yes	N/A	PDC #	PDC Description
☐	☑	15.	Only mechanical, cutterhead, and low volume hopper (e.g., CURRITUCK, ~300 cubic yard maximum bin capacity) dredges may be used.
☐	☑	16.	No new dredging in Atlantic sturgeon or Atlantic salmon critical habitat (maintenance dredging still must meet all other PDCs). New dredging outside Atlantic sturgeon or salmon critical habitat is limited to one time dredge events (e.g., burying a utility line) and minor (≤ 2 acres) expansions of areas already subject to maintenance dredging (e.g., marina/harbor expansion).
☐	☑	17.	Work behind cofferdams, turbidity curtains, or other methods to block access of animals to dredge footprint is required when operationally feasible or beneficial and ESA-listed species are likely to be present (if presence is limited to rare, transient individuals, exclusion methods are not necessary).
☐	☑	18.	Temporary intakes related to construction must be equipped with appropriate sized mesh screening (as determined by GARFO section 7 biologist and/or according to Chapter 11 of the NOAA Fisheries Anadromous Salmonid Passage Facility Design) and must not have greater than 0.5 fps intake velocities, to prevent impingement or entrainment of any ESA-listed species life stage.
☐	☑	19.	No new permanent intake structures related to cooling water, or any other inflow at facilities (e.g. water treatment plants, power plants, etc.).

e) TURBIDITY/WATER QUALITY PDC

Information for Turbidity Producing Activity (excluding disposal):	
ESA-species turbidity control measures required (e.g., turbidity curtain):	Yes
If no turbidity control measures required, explain why:	Select reason why no turbidity control measures are required
Information for Dredged Material Disposal:	
Disposal site:	Select disposal site
Estimated number of trips to disposal site:	
Relevant disposal site permit/special conditions required (NAE: for offshore disposal, include Group A, B, C, or relevant Long Island Sound consultation):	

Yes	N/A	PDC #	PDC Description
☑	☐	20.	Work behind cofferdams, turbidity curtains, or other methods to control turbidity is required when operationally feasible or beneficial and ESA-listed species are likely to be present (if presence is limited to rare, transient individuals, turbidity control methods are not necessary).
☐	☑	21.	In-water offshore disposal may only occur at designated disposal sites that have been the subject of ESA section 7 consultation with NMFS, where a valid consultation is in place and appropriate permit/special conditions are included.

Yes	N/A	PDC #	PDC Description
☑	☐	22.	Any temporary discharges must meet state water quality standards (e.g., no discharges of substances in concentrations that may cause acute or chronic adverse reactions, as defined by EPA water quality standards criteria).
☑	☐	23.	Only repair, upgrades, relocations and improvements of existing discharge pipes or replacement in-kind are allowed; no new construction of untreated discharges.
	f) ENTANGLEMENT PDC		

Information for Aquaculture Projects:

Approximate distance from shore (MHW)(m):	
Grow season begins (approximate):	
Grow season ends (approximate):	
Total number of vertical lines:	
Total number of horizontal lines:	
Is any gear seasonally removed from the water? If yes, which parts and when?	

	Aquaculture Gear	Acreage (total permit footprint)	Type of Shellfish Cultivated
a)	Select aquaculture gear		Select type of shellfish cultivated
b)	Select aquaculture gear		Select type of shellfish cultivated
c)	Select aquaculture gear		Select type of shellfish cultivated

Yes	N/A	PDC #	PDC Description
☐	☑	24.	Shell on bottom <50 acres with maximum of 4 corner marker buoys;
☐	☑	25.	Cage on bottom with no loose floating lines <5 acres and minimal vertical lines (1 per string of cages, 4 corner marker buoys);
☐	☑	26.	Floating cages in <3 acres in waters and shallower than -10 feet MLLW with no loose lines and minimal vertical lines (1 per string of cages, 4 corner marker buoys);
☐	☑	27.	Floating upweller docks in >10 feet MLLW.
☐	☑	28.	Any in-water lines, ropes, or chains must be made of materials and installed in a manner to minimize or avoid the risk of entanglement by using thick, heavy, and taut lines that do not loop or entangle. Lines can be enclosed in a rigid sleeve.
	g) HABITAT MODIFICATION PDC		
Yes	N/A	PDC #	PDC Description
☑	☐	29.	No conversion of habitat type (soft bottom to hard, or vice versa) for aquaculture or reef creation.

	h) VESSEL TRAFFIC PDC

Information for Vessel Traffic:

	Temporary Project Vessel Type	Number of Vessels
a)	Work barge	4
b)	Tug	1
c)	Crew support vessel	1
	Type of Non-Commercial or Aquaculture Vessels Added *– only include if there is a net increase directly/indirectly resulting from project*)	Number of Vessels (*if sum > 2, PDC 33 is not met and justification required in Section 4*)
a)	Select type of non-commercial or aquaculture vessels	
b)	Select type of non-commercial or aquaculture vessels	
	Type of Commercial Vessels Added (*only include if there is a net increase directly/indirectly resulting from project*)	Number of Vessels (*if > 0, PDC 33 is not met and justification required in Section 4*)
a)		
b)		

If no temporary/permanent vessel traffic, briefly explain (e.g., all land-based work, no net increase in vessel traffic)	

Yes	N/A	PDC #	PDC Description
☑	☐	30.	Maintain project vessels operating within the action area to speed limits below 10 knots and dredge vessel speeds of 4 knots maximum, while dredging.
☑	☐	31.	Maintain a 1,500-foot buffer between project vessels and ESA-listed whales and a 150-foot buffer between project vessels and sea turtles unless the vessel is navigating to an in-water disposal site/activity. If the vessel is navigating to an in-water disposal site/activity, refer to and include the conditions contained in the appropriate GARFO-USACE/EPA consultation for the disposal site.
☑	☐	32.	The number of project vessels must be limited to the greatest extent possible, as appropriate to size and scale of project.
☑	☐	33.	The permanent net increase in vessels resulting from a project (e.g., dock/float/pier/boating facility) must not exceed two non-commercial vessels. A project must not result in the permanent net increase of any commercial vessels (e.g., a ferry terminal).

Section 4: Justification for Review under the NLAA Program

If the action is not in compliance with all of the General PDC and appropriate stressor PDC, but you can provide justification and/or special conditions to demonstrate why the project still meets the NLAA determination and is consistent with the aggregate effects considered in the programmatic consultation, you may still certify your project through the NLAA program using

this verification form. Please identify which PDC your project does not meet (e.g., PDC 9, PDC 15, PDC 22, etc.) and provide your rationale and justification for why the project is still eligible for the verification form.

To demonstrate that the project is still NLAA, you must explain why the effects on ESA-listed species or critical habitat are **insignificant** (i.e., too small to be meaningfully measured or detected) or **discountable** (i.e., extremely unlikely to occur). **Please use this language in your justification.**

PDC#	Justification
4	The waters surrounding the Project Site are identified as overwintering habitat for adult shortnose sturgeon. The temporary shoreline stabilization will be installed over about 4 weeks between October and November 2024, which may partially occur during the November 1 through March 15 overwintering period for sturgeon. Shoreline stabilization will take place in very shallow waters along the shoreline which do not provide suitable habitat for overwintering sturgeon. A full-length turbidity curtain will be installed just offshore prior to placement of the geotextile and riprap armor stone and will remain in place for the duration of bridge construction. Should sturgeon be present in the area, the turbidity curtain will discourage them from entering the shallow waters of the project site where the temporary shoreline stabilization will be implemented and where barges will be located during bridge construction. Given the shallow waters of the site and the use of a full-length turbidity curtain, the effects of the action on ESA-listed species would be discountable.
PDC #	
PDC #	

PDC #	

Section 5: USACE Verification of Determination

☐	In accordance with the NLAA Program, USACE has determined that the action complies with all applicable PDC and is not likely to adversely affect listed species.
☐	In accordance with the NLAA Program, the USACE has determined that the action is not likely to adversely affect listed species per the justification and/or special conditions provided in Section 4.

USACE Signature:	Date:

Section 6: GARFO Concurrence

☐	In accordance with the NLAA Program, GARFO PRD concurs with USACE's determination that the action complies with all applicable PDC and is not likely to adversely affect listed species or critical habitat.
☐	In accordance with the NLAA Program, GARFO PRD concurs with USACE's determination that the action is not likely to adversely affect listed species or critical habitat per the justification and/or special conditions provided in Section 4.
☐	GARFO PRD does not concur with USACE's determination that the action complies with the applicable PDC (with or without justification), and recommends an individual Section 7 consultation to be completed independent from the NLAA Program.

GARFO Signature:	Date:

Attachment 7

Breakneck Connector and Bridge Project

OPRHP Habitat Suitability Assessment

Breakneck Connector and Bridge Project

Timber Rattlesnake and Eastern Fence Lizard Habitat Assessment

Jesse W. Jaycox
Wildlife Biologist
NYS Office of Parks, Recreation and Historic Preservation
625 Broadway, Albany, NY 12238
October 7, 2021

During environmental review of the Breakneck Connector and Bridge Project, NYSDEC Region 3 Wildlife staff requested a timber rattlesnake (*Crotalus horridus*) and Eastern fence lizard (*Sceloporus undulatus*) habitat suitability assessment of the project area, given that the entire project corridor is within 1.5-miles of a known timber rattlesnake hibernaculum and within close proximity to a known fence lizard occurrence. Being familiar with the project area and both species in New York State, I agreed to conduct that assessment.

Rebecca Ferry, OPRHP Stewardship Specialist, and I conducted a timber rattlesnake and Eastern fence lizard habitat suitability assessment for the Breakneck Connector and Bridge project on 24 August 2021, walking the project corridor from the Metro-North Railroad (MNR) pedestrian overpass to the north, and southerly to the Upper Overlook. I revisited the site on 27 August 2021, assessing the Hudson River shoreline below (west) and north of the Upper Overlook for the aforementioned species. The habitat types in the project corridor were defined into eight broad categories, delineated in GIS, and rated as to their suitability and likelihood to support timber rattlesnakes and Eastern fence lizards. The descriptions of each habitat category and their suitability are as follows:

- **Hardwood Forest**
  This is mixed deciduous forest, primarily along the edge of a larger contiguous significant Oak-Tulip Tree Forest mapped by the NY Natural Heritage Program. This hardwood forest is mostly along the eastern side of State Route 9D, but with some forested areas located on the west side of State Route 9D, including forest adjacent to a rocky summit community at the Breakneck Ridge trailhead. The road shoulder adjacent to this forested area contains the invasive species mugwort (*Artemisia vulgaris*) and tree of heaven (*Ailanthus altissima*), as well as a mix of other native and invasive herbaceous vegetation.

  Assessment:
  Timber Rattlesnake: We considered this habitat as suitable for timber rattlesnakes as it is forested and within the range that timber rattlesnakes can move from the nearest known hibernaculum. This habitat type would be suitable for foraging, but not basking, gestating, birthing, or denning. It's unlikely the species spends any time in this area given we have no records in this vicinity, but we cannot rule it out.

Eastern Fence Lizard:
Although fence lizards occur in nearby areas, the habitat here lacks the rocky structure we typically observe this species in. Additionally, it doesn't connect patches of suitable habitat since it's adjacent to State Route 9D and the railroad corridor. We are therefore considering this habitat not ideal for fence lizards and are not considering it suitable habitat.

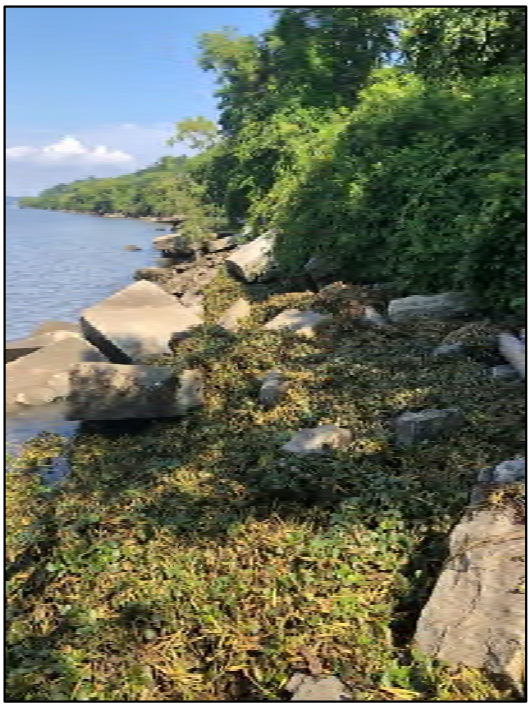
Please note that we made a distinction between this forested habitat type and another forested habitat (Hardwood Forest/Rocky Summit) to the south at the Breakneck trailhead. See that habitat description for more details.

Hardwood Forest East of State Route 9D

- **Scrub-Shrub/Riprap Shoreline**
  This area contains mixed deciduous trees interspersed with shrubs and invasive species between the western side of the Metro-North Railroad tracks and the Hudson River. This habitat grades into a shoreline comprised of stone riprap, including broken concrete slabs. The riprap shoreline was covered with the invasive species Water Chestnut (*Trapa natans*) during the time of the survey (low tide).

  Assessment:
  Timber Rattlesnake: Although within the known range of timber rattlesnakes from the nearest known hibernaculum, it is across State Route 9D and the Metro-North railroad tracks and we have no records of rattlesnakes in this area. Additionally, the riprap shoreline is also periodically flooded at high tide, making the rocky substrate less suitable. Therefore, we consider the species unlikely in this area.

Eastern Fence Lizard: Although fence lizards occur in nearby upland areas, the habitat here lacks the character of rocky summit type habitat we typically observe this species in at Hudson Valley sites. The riprap shoreline is also periodically flooded at high tide, making the rocky substrate less suitable and we are not considering this suitable habitat.



Scrub-Shrub/Riprap Shoreline

- **<u>Hardwood Forest/Rocky Summit (Includes Upper Overlook)</u>**
  This area is comprised of mixed deciduous rocky woods surrounding the Breakneck Ridge trailhead, leading to a small rocky summit community that's characterized by exposed bedrock outcroppings with some scattered rock slabs as structure. The ground vegetation in wooded areas includes false Solomon's seal (*Maianthemum racemosum*). The low ground vegetation in the rocky summit community contains common hairgrass (*Avenella flexuosa*), little bluestem (*Schizachyrium scoparium*), sedges (*Carex* sp.), goldenrod (*Solidago* sp.), slender bush clover (*Lespedeza virginica*), Virginia creeper (*Parthenocissus quinquefolia*), lowbush blueberry and/or huckleberry (*Vaccinium* sp.) and moss. Invasive species are mixed throughout the area and include Asian dayflower (*Commelina communis*) and black swallow-wort (*Vincetoxicum nigrum*). The canopy cover includes scattered red oak (*Quercus rubra*), pin (fire) cherry (*Prunus pensylvanica*), northern hackberry (*Celtis occidentalis*), ash (*Fraxinus* sp.), staghorn sumac (*Rhus typhina*), and red cedar (*Juniperus virginiana*). These trees are generally no taller than 25-feet.

Assessment:

Timber Rattlesnake: We consider this habitat type as suitable for timber rattlesnakes as it includes forested and rocky summit habitat within the range that timber rattlesnakes can move from the nearest known hibernaculum. Given the distance from the nearest known hibernaculum, the habitat type would most likely be suitable for foraging or basking, but not gestating, birthing, or denning. However, given the limited amount of suitable shelter rock and lack of rattlesnake records in this heavily used area, it's unlikely the species spends any significant time here, if any, but we cannot completely rule it out.

Eastern Fence Lizard: Overall, this is suitable habitat for fence lizards given the nature of the habitat (sunny rocky summit community with bedrock outcroppings with some shelter slabs) and proximity to known occurrences.

Since this location was determined to be potentially suitable fence lizard habitat, we conducted a survey for this species on 24 August 2021 between 12:30PM – 1:30PM. The air temperature was approximately 84 °F and it was mostly sunny. We observed one juvenile five-lined skink (Eumeces fasciatus) in the rocky summit community just south of the New York City Department of Environmental Protection's (DEP) drainage chamber, but no fence lizards were observed.

I also conducted a second survey of this area on 27 August 2021 from10:30AM – 12:15PM. The air temperature was approximately 84-90 °F and it was mostly sunny. I observed one juvenile five-lined skink at some fractured rock slabs within the rocky summit community, but no fence lizards were observed. This area is also just south of the DEP drainage chamber and not far from where we observed the five-lined skink on 24 August.

I returned on 24 September 2021 to conduct a third survey of the Upper Overlook. I searched the suitable habitat between 9:55AM and 12:00PM. The air temperature was approximately 61-66 °F and it was mostly sunny with a slight cool breeze. No lizards of any species were observed.

Although we did not find fence lizards during three survey efforts, we cannot assume they are not in this habitat, especially after identifying a common associate, the five-lined skink, here. Fence lizards can sometimes be difficult to detect, and I have personally experienced situations where I couldn't find the species in other appropriate habitats on some surveys, while finding several in the same habitats on other dates. Therefore, unless presence is assumed, additional surveys for this species are warranted if there's a goal of confirming the species here.

Given the close proximity of known fence lizard occurrences, we are also considering the forested community between this rocky summit community (Upper Overlook) and the

known occurrence at a higher elevation as suitable habitat, as it may provide a habitat connection between suitable rocky summit patches.

Hardwood Forest along trailhead

Hardwood Forest grading into rocky summit along trail

Rocky Summit shelter rocks

Rocky Summit

- **Ledge**
  This is a rock ledge created by the Metro-North Railroad corridor. This exposed bedrock cut is adjacent to the north and south sides of the Metro-North pedestrian overpass.

  Assessment:
  Timber Rattlesnake and Eastern Fence Lizard: Although this is within the range of timber rattlesnakes from the nearest known hibernaculum, the rock face lacks structure and vegetative cover and is not suitable habitat for this species or Eastern fence lizard.

Ledge (rock cut) adjacent to MNR
pedestrian overpass and observation platform

- **Railroad and Railroad Shoulder**
  This is the Metro-North Railroad tracks and the cleared gravel/soil shoulder on either side of the railroad tracks.

  Assessment:
  Timber Rattlesnake and Eastern Fence Lizard: Although this is within the range of timber rattlesnakes from the nearest known hibernaculum, the railroad tracks and adjacent gravel shoulders are not suitable habitat. The railroad also poses a threat to this species should it venture onto it. Likewise, this is not suitable habitat for Eastern fence lizard.

See photo above under the "Ledge" heading and photo below.

Cleared Railroad Shoulder

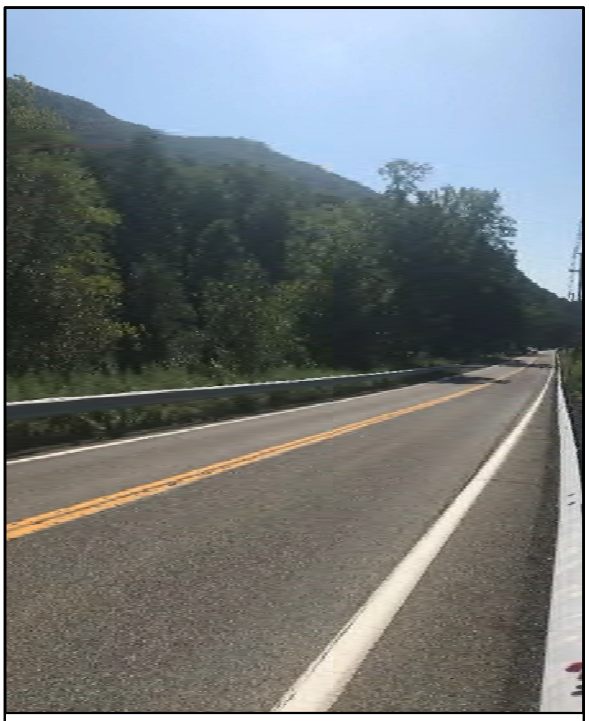
- **<u>Path/Metro-North Railroad Pedestrian Overpass</u>**
  This is the path from State Route 9D to and including the Metro-North pedestrian overpass.

  <u>Assessment:</u> *The path and Metro-North pedestrian overpass are not suitable habitat for timber rattlesnake and Eastern fence lizard.*

Path and MNR Pedestrian Overpass

- **Road and Road Shoulder**
  This includes State Route 9D and the adjacent road shoulder. The road shoulder is primarily a disturbed area consisting of exposed soil and some herbaceous vegetation, including invasive species.

  Assessment: *This is not suitable habitat for timber rattlesnakes or Eastern fence lizards. The road also poses a threat to these species should they venture onto it and we have no reports of either species from this specific location, including road-killed animals.*



State Route 9D

- **Tree/Shrub/Invasive Corridor**
  This is the vegetated zone between the Metro-North Railroad tracks and State Route 9D. The area is characterized by a narrow corridor of trees, including black walnut (*Juglans nigra*), staghorn sumac, sugar maple (*Acer saccharum*), hackberry, red maple (*Acer rubrum*), red oak, and black locust (*Robinia pseudoacacia*). Red cedar was also noted in at least one location. Woody invasives including Tree-of-Heaven and buckthorn (*Rhamnus sp*.) are also present. Additional species include goldenrod, poison ivy (*Toxicodendron radicans*), Virginia creeper, spicebush (*Lindera benzoin*), and pokeweed (*Phytolacca americana*). Spotted jewelweed (*Impatiens capensis*) and skunk cabbage (*Symplocarpus foetidus*) were present in a wet area. Additional exotic species include scattered occurrences of mullein (*Verbascum* sp.), black swallow-wort, Asian dayflower, primrose (*Oenothera* cf. *biennis*), mugwort, Oriental bittersweet (*Celastrus orbiculatus*), wineberry (*Rubus phoenicolasius*), Japanese stilt grass (*Microstegium vimineum*), multiflora rose (*Rosa multiflora*), and extensive areas of porcelain berry (*Ampelopsis glandulosa*) and Japanese knotweed (*Reynoutria japonica*). Common reed (*Phragmites australis*) was present in a wet area.

  Assessment: *Timber Rattlesnake: Although this is within the range of timber rattlesnakes from the nearest known hibernaculum, the presence of State Route 9D between the majority of Hudson Highlands State Park Preserve and no evidence of road-killed animals makes this area unlikely for rattlesnakes. However, we cannot rule it out.*

Eastern Fence Lizard: This corridor lacks the character of rocky summit type habitat we typically observe this species in at Hudson Valley sites and we are not considering it suitable habitat.

Three views of the Tree/Shrub/Invasive Corridor between State Route 9D and the railroad corridor

Hudson Highlands State Park Preserve

Breakneck Connector and Bridge Project - Habitat Assessment - Internal Use Only

Map produced by NYS OPRHP, October 14, 2021.

NEW YORK STATE OF OPPORTUNITY | Parks, Recreation and Historic Preservation

Attachment 8

Breakneck Connector and Bridge Project

USFWS Correspondence and IPaC Biological Assessment

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: February 01, 2023
Project Code: 2023-0021022
Project Name: Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Project Code: 2023-0021022

Project Name: Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project

Project Type: Recreation - New Construction

Project Description: Construction of 0.58-mile ADA accessible shared use trail that includes a new bridge over the Metro North Railroad (MNR) tracks, parking areas along NYS Route 9D, trail connections to two trailheads within Hudson Highlands State Park Preserve including Breakneck Ridge Trail, addition of two comfort station buildings, upgrades to the MNR Breakneck Ridge station and platforms, relocation of the power lines from the western side of NYS Route 9D to the eastern side, installation of a trail steward station, and upgrades to the Upper Overlook area along the Breakneck Ridge Trail. Total 2,620 linear feet of shared use trail, 445 linear feet of bridge over MNR tracks, and 342 linear feet of trailhead connections. Lead agency for the project is New York State Office of Parks Recreation and Historic Preservation (OPRHP) and project will need authorization under CWA Section 404 from the U.S. Army Corps of Engineers.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.4461362,-73.98022177595242,14z

Counties: Dutchess and Putnam counties, New York

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: AKRF, Inc.
Name: Melissa Grese
Address: 7250 Parkway Drive
Address Line 2: Suite 210
City: Hanover
State: MD
Zip: 21076
Email mgrese@akrf.com
Phone: 4107124848

Lead Agency Contact Information

Lead Agency: Army Corps of Engineers

Environmental, Planning, and Engineering Consultants
7250 Parkway Drive
Suite 210
Hanover, MD 21076
tel: 410 712-4848
fax: 929 284-1085
www.akrf.com

March 16, 2023

Noelle L. Rayman-Metcalf
U.S. Fish and Wildlife Service
New York Field Office
3817 Luker Road
Cortland, NY 13045-9385
noelle_rayman@fws.gov

Re: Request for Review of NLAA Determinations under Section 7 of the Endangered Species Act
Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project

Dear Ms. Rayman-Metcalf:

Hudson Highlands Fjord Trail, Inc. (HHFT) is preparing a Joint Application for the Breakneck Connector and Bridge (BNCB) Project for coverage under Nationwide Permit 14 Linear Transportation from the US Army Corps of Engineers (USACE) and Article 15 of the New York Environmental Conservation Law and Section 401 Water Quality Certification from the New York State Department of Environmental Conservation (NYSDEC). As part of the permit application, HHFT has reviewed the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consulting (IPaC) database to determine the presence of protected species and to evaluate the potential effects of the Project on these species. A brief project description and a summary of the USFWS IPaC results are provided below.

Project Description

The BNCB Project is an approximately 0.6-mile section of a larger planned 7.5-mile shared-use trail between Beacon and Cold Spring, New York. The full trail would establish a linear park comprising a non-motorized shared-use trail with recreation destinations along the Hudson River and connect to existing parks, recreational resources, and heavily used trails including those in the Hudson Highlands State Park Preserve (HHSPP). The BNCB section would be developed on previously disturbed lands including the New York City Department of Environmental Protection's Hudson River Drainage Chamber property, Metro-North Railroad (MNR) right-of-way, NYS Department of Transportation Route 9D, dirt parking areas, MNR access roads, the Breakneck Ridge MNR station, and the heavily trafficked Breakneck Ridge Trail. This portion of the trail is being advanced independent of the larger trail due to an urgent need to address pedestrian safety and congestion issues along this section of NYS Route 9D. The project would establish a publicly-accessible shared-use trail, including a bridge over the MNR tracks, parking areas along NYS Route 9D, connections to the Breakneck Ridge trail and Wilkinson Memorial Trail within the HHSPP, two comfort station buildings, and replacement of the MNR Breakneck Ridge station platforms.

Activities for which authorization is being requested under the Joint Application include:

- Temporary shoreline stabilization at the new bridge location to provide construction access from water comprising 260 LF of riprap with 126 CY below SHW and 106 CY below MHW placed on geotextile.

Riprap and geotextile will be removed following bridge construction. No footings or trail components will be placed below SHW or MHW or within wetlands.

- Water-based construction of the bridge and a new Breakneck Ridge MNR station.
- Minor grading affecting delineated freshwater wetlands.

USFWS IPAC Results

Review of the USFWS IPaC database indicated that northern long-eared bat (*Myotis septentrionalis*; threatened), Indiana bat (*Myotis sodalis*; endangered), and monarch butterfly (*Danaus plexippus*; candidate) have the potential to occur at the Project Site. The Rangewide Determination Key for northern long-eared bat indicated "may affect" (**Enclosure 1**) and the Northeast Species Determination Key indicated "may affect" for Indiana bat (**Enclosure 2**). Given the "may affect" determinations, a Biological Assessment was prepared on March 14, 2023 through IPaC to evaluate the potential effects of the Project on northern long-eared bat, Indiana bat, and monarch butterfly (**Enclosure 3**). As described in the Biological Assessment, HHFT has made the determination that the Project may affect but is not likely to adversely affect Indiana bat, northern long-eared bat, or monarch butterfly. HHFT is requesting feedback from USFWS with this determination which will be included in the Joint Application being submitted for the project.

If you have any questions or require additional information about this request or the Project, please contact me at 646-388-9657 or scollins@akrf.com.

Sincerely,

Sandra L Collins

Sandy Collins
AKRF, Inc.

cc: Amy Kacala, HHFT
Melissa Grese, AKRF

Enclosure 1: Rangewide Determination Key Results for Northern Long-Eared Bat dated March 10, 2023
Enclosure 2: Northeast Species Determination Key Results dated February 9, 2023
Enclosure 3: USFWS IPaC Biological Assessment dated March 14, 2023

ENCLOSURE 1

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: February 09, 2023
Project code: 2023-0021022
Project Name: Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project
IPaC Record Locator: 892-122256521

Federal Nexus: yes
Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Technical assistance for 'Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project'

Dear Melissa Grese:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on February 09, 2023, for “Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project” (here forward, Project). This project has been assigned Project Code 2023-0021022 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species’ determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat.

Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is required (ESA

§7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect (NLAA)" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	**Listing Status**	**Determination**
Indiana Bat (*Myotis sodalis*)	Endangered	May affect

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect". Please contact our New York Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Threatened

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New York Ecological Services Field Office and reference the Project Code associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project

2. Description

The following description was provided for the project 'Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project':

> Construction of 0.58-mile ADA accessible shared use trail that includes a new bridge over the Metro North Railroad (MNR) tracks, parking areas along NYS Route 9D, trail connections to two trailheads within Hudson Highlands State Park Preserve including Breakneck Ridge Trail, addition of two comfort station buildings, upgrades to the MNR Breakneck Ridge station and platforms, relocation of the power lines from the western side of NYS Route 9D to the eastern side, installation of a trail steward station, and upgrades to the Upper Overlook area along the Breakneck Ridge Trail. Total 2,620 linear feet of shared use trail, 445 linear feet of bridge over MNR tracks, and 342 linear feet of trailhead connections. Lead agency for the project is New York State Office of Parks Recreation and Historic Preservation (OPRHP) and project will need authorization under CWA Section 404 from the U.S. Army Corps of Engineers.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.4461362,-73.98022177595242,14z

Qualification Interview

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

   Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

   Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

   No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

   No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

   Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

   Yes

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

   Yes

7. Will the proposed project involve the use of herbicide?

   No

8. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

   No

9. Does any componentof the project associated with this action include structures that may pose a collision risk to birds or bats (e.g., wind turbines, communication towers, transmission lines, any type of towers with or without guy wires)?

   NoteFor federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

10. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

    For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

    No

11. Will the proposed project affect wetlands?

    This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

    Yes

12. Will the proposed project activities (including upland project activities) occur within 0.5 miles of the water's edge of a stream or tributary of a stream?

    Yes

13. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary?

    Yes

14. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream?

    No

15. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds)?

    No

16. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining?

    No

17. Will the proposed project involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

    Note that sedimentation will be addressed in a separate question.

    No

18. Will the proposed project involve perennial stream loss that would require an individual permit under 404 of the Clean Water Act?

    No

19. Will the proposed project involve blasting?

    No

20. Will the proposed project include activities that could result in an increase to recreational fishing or potentially affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage)?

    No

21. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream?

    Yes

22. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank?

    Yes

23. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, or the equivalent to these BMPs, be applied to the project?

    Yes

24. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

    Automatically answered
    No

25. [Semantic] Does the project intersect the Indiana bat AOI?

    Automatically answered
    Yes

26. Is the action area within 0.5 mile radius of any known hibernacula (caves or mines) openings or underground features?

    Note: If you are unsure, contact the appropriate Ecological Services Field Office before continuing through the key.

    No

27. Is suitable summer habitat for the Indiana bat present within the action area?

    Note: If unsure, answer "Yes." Or refer to Appendix A of the Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines for definitions and an assessment form that will assist you in determining if suitable habitat is present within your project area. Suitable summer habitat for Indiana bat consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥5 inches dbh (12.7 centimeter) that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/ wooded habitat

    Yes

28. Is the action area within known occupied Indiana bat habitat? Known occupied Indiana bat habitat includes established conservation buffers (10-mile buffer around Phase 1 or Phase 2 hibernacula, 5-mile buffer around Phase 3 or Phase 4 hibernacula; 5-mile buffer around Indiana bat captures or detections; 2.5-mile buffer around known roosts).

    No

29. Has a presence/probable absence bat survey following the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines been conducted within the action area?

    No

30. Does the project involve removal or modification of a human-made structure (barn, house, or other building) known or suspected to contain roosting bats?

    Note: Most maintenance and general human disturbance in and around structures will not affect Indiana bats as bats roosting in human structures are adjusted to a certain level of routine noise and are generally expected to roost away from areas with excessive disturbance. Answer 'no' if the proposed action will not include disturbance to human structures known or suspected to contain roosting bats or if the structure does not offer suitable roosting habitat for northern long-eared bats. If unsure, answer 'yes.'

    No

31. Does the project include removal/modification of an existing bridge or culvert?

    No

32. Will the project include tree cutting, other means of knocking down or bringing down trees, or tree trimming?

    Yes

33. Does the project include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property?

    No

34. Will the proposed project result in the removal of any known or potential Indiana bat roost trees?

    Note: Suitable Indiana bat roost trees are live trees and/or snags ≥5 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

    Yes

35. [Semantic] Does the project intersect the Indiana bat critical habitat?

    Automatically answered
    No

36. [Semantic] Does the project intersect the candy darter critical habitat?

    Automatically answered
    No

37. [Semantic] Does the project intersect the diamond darter critical habitat?

    Automatically answered
    No

38. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

    Automatically answered
    No

39. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

    Automatically answered
    No

40. Do you have any other documents that you want to include with this submission?

    No

Project Questionnaire

1. Approximately how many acres of trees would the proposed project remove?

   0.01

2. Approximately how many total acres of disturbance are within the disturbance/ construction limits of the proposed project?

   12

3. Briefly describe the habitat within the construction/disturbance limits of the project site.

   Approximately 0.6 miles along the Hudson River shoreline, mainly between Route 9D to the east and the Metro-North Railroad (MNR) Tracks to the west. A small portion of the Breakneck Connector path will be between the Hudson River and the MNR Tracks. It would be developed on previously disturbed lands comprising the NYCDEP's Hudson River Drainage Chamber, MNR right-of-way, NYSDOT Route 9D, dirt parking areas, MNR access roads, the Breakneck Ridge MNR station, and a very heavily trafficked Breakneck Ridge Trail. Trees and brush are present along the MNR right-of-way throughout the project site, where informal trails are currently in use.

IPaC User Contact Information

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State: MD
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Phone: 4107124848

Lead Agency Contact Information

Lead Agency: Army Corps of Engineers

ENCLOSURE 2

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: March 10, 2023
Project code: 2023-0021022
Project Name: Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project
IPaC Record Locator: 892-123460235

Federal Nexus: yes
Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Technical assistance for 'Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project'

Dear Melissa Grese:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on March 10, 2023, for 'Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project' (here forward, Project). This project has been assigned Project Code 2023-0021022 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.**

Determination for the Northern Long-Eared Bat

Based on your IPaC submission and the standing analysis for the Dkey, your project has reached the determination of "May Affect" on the northern long-eared bat. If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that the action "is not likely to adversely affect" the species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See §402.17).

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.

Next Steps

Your action may qualify for the Interim Consultation Framework for the northern long-eared bat. To determine if it qualifies, review the Interim Consultation Framework posted here. If you determine it meets the requirements of the Interim Consultation Framework, send an email to the Midwest Regional Office at consultationr3es@fws.gov to determine if northern long-eared bats are reasonably certain to occur in your action area. The email subject line must include the Project Code provided in this letter. The Midwest Regional Office will respond with the appropriate determination and next steps.

If your project does **not** meet the requirements of the Interim Consultation Framework, please contact our New York Ecological Services Field Office for further coordination on this project. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of “May Affect”.

If you have any questions regarding this letter or need further assistance, please contact the New York Ecological Services Field Office and reference Project Code 2023-0021022 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project

2. Description

The following description was provided for the project 'Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project':

> Construction of 0.58-mile ADA accessible shared use trail that includes a new bridge over the Metro North Railroad (MNR) tracks, parking areas along NYS Route 9D, trail connections to two trailheads within Hudson Highlands State Park Preserve including Breakneck Ridge Trail, addition of two comfort station buildings, upgrades to the MNR Breakneck Ridge station and platforms, relocation of the power lines from the western side of NYS Route 9D to the eastern side, installation of a trail steward station, and upgrades to the Upper Overlook area along the Breakneck Ridge Trail. Total 2,620 linear feet of shared use trail, 445 linear feet of bridge over MNR tracks, and 342 linear feet of trailhead connections. Lead agency for the project is New York State Office of Parks Recreation and Historic Preservation (OPRHP) and project will need authorization under CWA Section 404 from the U.S. Army Corps of Engineers.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.44679585,-73.98058801162003,14z

DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of "may affect" for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Does any component of the action involve construction or operation of wind turbines?

   Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

3. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   No

5. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   No

6. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

7. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the effects of any activities that would not occur but for the proposed action.

   If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer "No" below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project's action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a "no effect" determination for the northern long-eared bat.

   Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer "No" and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of Effects of the Action can be found here: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

   No

8. Have you contacted the appropriate agency to determine if your action is near any known northern long-eared bat hibernacula?

   Note: A document with links to Natural Heritage Inventory databases and other state-specific sources of information on the locations of northern long-eared bat hibernacula is available here. Location information for northern long-eared bat hibernacula is generally kept in state natural heritage inventory databases – the availability of this data varies by state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited.

   Yes

9. Is any portion of the action area within 0.5-mile radius of any known northern long-eared bat hibernacula? If unsure, contact your local Ecological Services Field Office.

   No

10. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

    No

11. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
(If unsure, answer "Yes.")

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥5 inches dbh (12.7 centimeter dbh)), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    Yes

12. Will the action cause effects to a bridge?

    No

13. Will the action result in effects to a culvert or tunnel?

    No

14. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

    Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures

    No

15. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

    No

16. Will the action cause construction of one or more new roads open to the public?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

17. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic on one or more existing roads?

    Note: For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

    No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

    For federal actions, answer ‘yes’ when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

19. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)?

    No

20. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

    No

21. Will the proposed action involve blasting?

    No

22. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

    No

23. Will the proposed action involve the use of herbicides or pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

    Yes

24. Will the action result in herbicide use that may affect suitable summer habitat for the northern long-eared bat?

    Note: Additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    No

25. Will the action include or cause the application or drift of pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides) into forested areas that are suitable summer habitat for the northern long-eared bat? Answer "Yes" if the application may result in transport (e.g., in water) or aerial drift of the pesticide into forested areas that are suitable summer habitat for the northern long-eared bat.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    No

26. Will the action include or cause activities that are reasonably certain to cause chronic nighttime noise in suitable summer habitat for the northern long-eared bat? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    No

27. Does the action include, or is it reasonably certain to cause, the use of artificial lighting within 1000 feet of suitable northern long-eared bat roosting habitat?

    Note: Additional information defining suitable roosting habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions.

    Yes

28. Will the action use only downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting)
    when installing new or replacing existing permanent lights? Or for those transportation agencies using the Backlight, Uplight, Glare (BUG) system developed by the Illuminating Engineering Society, will all three ratings (backlight, uplight, and glare) be as close to zero as is possible, with a priority of "uplight" of 0?

    Yes

29. Will the action direct any temporary lighting away from suitable northern long-eared bat roosting habitat during the active season?

    Note: Active season dates for northern long-eared bat can be found here: https://www.fws.gov/media/inactive-season-dates-areas-outside-swarming-and-staging-areas

    Yes

30. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

    Yes

31. Have you contacted the appropriate agency to determine if the action area overlaps with a known northern long-eared bat conservation buffer / known summer habitat (3-mile buffers around northern long-eared bat captures or detections; 1.5 mile buffer around known roosts)) or spring staging/fall swarming buffer (within 5 miles of known hibernacula)?

    Note: A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees can be found here. Location information for northern long-eared bat maternity roost trees and swarming areas is generally kept in state natural heritage inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. If you'd like to assume presence of northern long-eared bats, answer "No".

    No

PROJECT QUESTIONNAIRE

Will all project activities by completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

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Name: Melissa Grese
Address: 7250 Parkway Drive
Address Line 2: Suite 210
City: Hanover
State: MD
Zip: 21076
Email mgrese@akrf.com
Phone: 4107124848

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

expected to reduce stormwater impacts and minimize flood impacts to MNR properties and operations, and to NYS Route 9D. In addition, the Steward Station may include a green roof, which would minimize runoff. Therefore, the Project is consistent with this policy.

Policy 35: Dredging and filling in coastal waters and disposal of dredged material will be undertaken in a manner that meets existing State dredging permit requirements, and protects significant fish and wildlife habitats, scenic resources, natural protective features, important agricultural lands, and wetlands.

The Project would not involve any dredging in coastal waters. Minor grading is proposed within less than one-tenth of an acre of wetlands. Proposed regrading in the wetlands will result in a net-fill of about 59.7 cubic yards. Filling would generally include well-graded soil, imported or from on-site. Proposed filling is less than three feet in depth at specific areas to support grading for drainage. This placement of fill associated with the minor grading in the wetland would require a CWA Section 404 permit from USACE if deemed to be under USACE jurisdiction, and a Section 401 Water Quality Certification and Article 24 Freshwater Wetlands Permit from NYSDEC if deemed to be under NYSDEC jurisdiction. The use of silt barriers or turbidity barriers would be used during shoreline stabilization to minimize the potential for sediment re-suspension during placement of the geotextile and crushed limestone. The Project Site is strongly influenced by the tidal currents of the Hudson River and any temporary increase in suspended sediment and localized turbidity that may result from the installation of shoreline stabilization would dissipate shortly after the completion of the sediment disturbing activity. Therefore, the Project is consistent with this policy.

Policy 38: The quality and quantity of surface water and groundwater supplies, will be conserved and protected, particularly where such waters constitute the primary or sole source of water supply.

Mapping resources indicate there are no Sole-Source, Primary, or Principal Aquifers in or near the Project Site. Regardless, measures would be included to protect the quality of surface and groundwater, such as vegetated swales to provide control of stormwater quality. At the well location, six-inch-inner-diameter steel casing was installed into bedrock to about 40 feet deep, and a 6-inch-diamater well-hole was then drilled into bedrock to about 310-feet deep. A pump test was conducted in the well-hole which proved about 30-gpm of water yield. The comfort stations would use Clivus composting toilets that would not discharge to groundwater. Wastewater would be stored in liquid end tanks that would be pumped out by a service company.

A draft SWPPP for the Project has been developed in accordance with the New York State Stormwater Management Design Manual. The Project would implement erosion and sediment control measures (e.g., silt fencing, inlet protection, surface stabilization, and dust control) in accordance with the SWPPP prepared for the Project as required by the SPDES General Permit GP-0-20-001 for Stormwater Discharges from Construction Activity and would minimize the potential for discharges of sediment to the Hudson River during upland construction activities.

The Project would include a series of vegetated swales for control and treatment of stormwater runoff prior to discharge to the Hudson River, in accordance with NYSDEC standards. The drainage design for the Project intends to largely maintain existing flow patterns and proposes to keep existing culverts crossing under both NYS Route 9D and the MNR tracks. The proposed vegetated swales would reduce runoff and promote infiltration through soil improvement and are expected to reduce stormwater impacts to MNR properties and operations, and to NYS Route 9D. In addition, the Steward Station may include a green roof, which would minimize runoff.

Therefore, the Project is consistent with this policy.

Policy 40: Effluent discharged from major steam electric generating and industrial facilities into coastal waters will not be unduly injurious to fish and wildlife and shall conform to state water quality standards.

The Project does not include steam electric generating or industrial facilities. Therefore, this policy is not applicable.

ENCLOSURE 3

HUDSON HIGHLANDS FJORD TRAIL BREAKNECK CONNECTOR AND BRIDGE PROJECT

BIOLOGICAL ANALYSIS

Prepared using IPaC

Generated by Melissa Grese (mgrese@akrf.com)

March 14, 2023

The purpose of this document is to assess the effects of the proposed project and determine whether the project may affect any federally threatened, endangered, proposed, or candidate species. If appropriate for the project, this document may be used as a biological assessment (BA), as it is prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536 (c)).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of January 24, 2023.

Prepared using IPaC version 6.89.0-rc6

HUDSON HIGHLANDS FJORD TRAIL BREAKNECK CONNECTOR AND BRIDGE PROJECT BIOLOGICAL ASSESSMENT

TABLE OF CONTENTS

1 DESCRIPTION OF THE ACTION

1.1 PROJECT NAME

Hudson Highlands Fjord Trail Breakneck Connector and Bridge Project

1.2 EXECUTIVE SUMMARY

The Breakneck Connector and Bridge (BNCB) Project is an approximately 0.6-mile section of a larger planned 7.5-mile shared-use trail between Beacon and Cold Spring, New York, which includes a 445-linear foot bridge over the MNR tracks. The full trail would establish a linear park comprising a non-motorized shared-use trail with recreational destinations along the Hudson River and connect to existing parks, recreational resources, and heavily used trails including those in the HHSPP. The project would include removal of trees and brush between the northbound platform and MNR pedestrian overpass and along the MNR right-of-way within the Project Site. Relocation of the overhead power lines from the west side of NYS Route 9D to the east side of NYS Route 9D would require tree removal and installation of new poles along the east side of the road. All tree removal would be conducted between November 1 and March 31 to minimize potential impacts to wildlife. A SWPPP has been developed for the Project in accordance with NYSDEC requirements to minimize the potential effects of ground disturbance associated with the Project and tree removal. Native vegetation, including milkweed, would be planted to permanently restore the disturbed areas. While there is potential habitat for Indiana bats, northern long-eared bats, and monarch butterflies in the project area, the Project is not likely to adversely affect these species given the nature of the Project and the measures that would be implemented to minimize potential impacts.

1.3 EFFECT DETERMINATION SUMMARY

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
Indiana Bat	Myotis sodalis	Endangered	Yes	NLAA
Monarch Butterfly	Danaus plexippus	Candidate	Yes	NLAA
Northern Long-eared Bat	Myotis septentrionalis	Threatened	Yes	NLAA

1.4 PROJECT DESCRIPTION

1.4.1 LOCATION

LOCATION
Dutchess and Putnam counties, New York

1.4.2 DESCRIPTION OF PROJECT HABITAT

Project will be developed within approximately 12 acres of previously disturbed lands along roadways, rail right-of-way, and heavily trafficked trails. The trail is generally bounded by Route 9D to the east, the MNR tracks and Hudson River to the west, and the New York City Department of Environmental Protection (NYCDEP) Hudson River Drainage Chamber to the south. Limited vegetation is present within the parking areas and along the informal trails. The southern portion of the project site and the areas between Route 9D and the MNR tracks are dominated by upland and non-wetland vegetative communities including hardwood forested areas with a dense understory of scrub-shrub vegetation. The Hudson River shoreline comprises areas of riprap and scrubby upland woody vegetation. Milkweed has been observed within the Project Site and is included in the post-construction landscaping plan.

A wetland delineation for the project site conducted in June 2020 by Tim Miller Associates Inc. (TMA) identified four small freshwater wetland areas in the project site, labeled as Wetlands A, B, C, and D. Wetland A is a linear feature that receives flow through a culvert beneath Route 9D from a wetland and surface water corridor on the east side of the road. Wetlands B, C, and D are hydrologically connected at the surface during storm events and likely connected during dry periods through gravelly subsurface soils. Wetland B receives overflows from Wetlands C and D and conveys the water the Hudson River through a large culvert under the MNR tracks. Wetlands C and D receive runoff from the western slopes of Breakneck Hill through existing culverts that convey water under Route 9D. Vegetation in Wetland A is dominated by cattails (*Typha* sp.) and common reed (*Phragmites australis*). Wetlands B, C, and D contain a combination of native species like sensitive fern (*Onoclea sensibilis*), arrow arum (*Peltandra virginica*), redosier dogwood (*Cornus sericea*), and elderberry (*Sambucus canadensis*), as well as non-native vines and weedy brush like multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*), privet (*Ligustrum* sp.), and oriental bittersweet (*Celastrus orbiculatus*).

1.4.3 PROJECT PROPONENT INFORMATION

Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.

REQUESTING AGENCY
AKRF, Inc.

FULL NAME
Melissa Grese

STREET ADDRESS
7250 Parkway Drive

Suite 210

CITY
Hanover

STATE
MD

ZIP
21076

PHONE NUMBER
4107124848

E-MAIL ADDRESS
mgrese@akrf.com

LEAD AGENCY
Department of Defense

Army Corps of Engineers

1.4.4 PROJECT PURPOSE

The Breakneck Connector and Bridge (BNCB) Project is an approximately 0.6-mile section of a larger planned 7.5-mile shared-use trail between Beacon and Cold Spring, New York. The full trail would establish a linear park comprising a non-motorized shared-use trail with recreational destinations along the Hudson River and connect to existing parks, recreational resources, and heavily used trails including those in the HHSPP. The BNCB portion of the trail is being advanced independent of the larger trail due to an urgent need to address pedestrian safety and congestion issues along this section of NYS Route 9D. The Project area, in its existing state, has been a safety hazard to the general public, providing limited separation between the train tracks and hikers arriving at the site by car. The Metro North Railroad (MNR) Breakneck Ridge Train Station was closed in late 2019 due to a pedestrian fatality, and parking lot and roadside parking controls (jersey barriers) were implemented to reduce the number of vehicles able to park at this time. MNR and HHFT, Inc. installed a trail and fencing on MNR property to mitigate this safety concern in fall 2021, securing the tracks and providing a clear path between the existing train station platforms, and the station was reopened in spring 2022. The Project would create a permanent solution to the safety and public access concerns with the establishment of the publicly accessible shared-use trail, including a bridge over the MNR tracks, parking areas along NYS Route 9D, connections to the Breakneck Ridge trail and Wilkinson Memorial Trail within the HHSPP, two comfort station buildings, and replacement of the MNR Breakneck Ridge station platforms.

1.4.5 PROJECT TYPE AND DECONSTRUCTION

This project is a bridge construction and recreational trail construction project.

1.4.5.1 PROJECT MAP

LEGEND

Project footprint

Barge staging: Barge staging

Multi-use path: Cut above-ground vegetation, landscaping/restoration, multi-use path construction, prepare the project site (terrestrial), multi-use path (structure)

Temporary shoreline stabilization: Riprap placement

1.4.5.2 MULTI-USE PATH

STRUCTURE COMPLETION DATE
June 30, 2025

REMOVAL/DECOMMISSION DATE (IF APPLICABLE)
Not applicable

STRESSORS

- Increase in native vegetation
- Change in human structures
- Increase in impervious surfaces
- Change in surface runoff
- Change in artificial lighting

DESCRIPTION
The Project would establish a permanent recreational trail where informal trails are already in use and is expected to accommodate existing use of the area rather than increasing visitorship. It would limit the increase in impervious surface to approximately 2 acres total by using flagstone pavers over crushed stone at the comfort station area, permeable pavers in portions of the parking lots, and crushed stone surfacing for on-grade sections of the trail. Native plantings would be incorporated to restore areas disturbed during construction, and the new steward station may incorporate a green roof to help reduce runoff. The Project would include a series of swales for treatment of stormwater prior to its discharge to the Hudson River, in accordance with NYSDEC standards. Artificial lighting would be installed at the MNR station platform in accordance with MNR Station Standards. Lights would be downward facing with a full cutoff lens design.

1.4.5.3 BARGE STAGING

ACTIVITY START DATE
February 01, 2024

ACTIVITY END DATE
June 30, 2025

STRESSORS

- Change in shoreline
- Increase in boat traffic

DESCRIPTION
The bridge over the MNR tracks near the DEP drainage chamber would be constructed using barge-based equipment, except for its eastern abutment on the east side of the MNR tracks which would be constructed using land-based equipment. Construction of the southbound MNR platform would also be constructed using barge-based equipment. The barges are required because heavy equipment is not permitted to cross the MNR tracks to reach the Project site.

Waterside construction for the bridge would use up to four barges at a time including: a 60x260 foot logistics/mobilization barge for staging in place for about 12 months; a 50x200 foot materials barge that would moor temporarily to the logistics barge for periodic delivery of materials (approximately 10 trips and anchored for one week per trip); a 50x200 foot barge to deliver and erect major bridge components, in place for about 12 weeks; and a 60x260 foot crane barge to assist with bridge assembly, in place for about 12 weeks. The bridge construction would also require temporary shoreline stabilization to facilitate the movement of equipment and personnel between the barge and the project site. The shoreline stabilization would comprise riprap stone placed atop geotextile along approximately 260 linear feet of the shoreline at the bridge location to accommodate placement of a temporary ramp for equipment. The shoreline stabilization would be entirely removed once the bridge construction is complete.

Construction of the southbound MNR platform would use a 50x200 foot logistics/ mobilization barge anchored offshore for about 14 weeks and a 100x200 foot crane barge that would move pre-fabricated platform components and heavy materials from the logistics barge to the construction site. The southbound platform construction would not require shoreline stabilization. The logistics barge would deliver materials for construction and remove materials at the completion of construction, including stockpiled debris and vegetation.

1.4.5.4 CUT ABOVE-GROUND VEGETATION

ACTIVITY START DATE
March 01, 2023

ACTIVITY END DATE
March 31, 2024

STRESSORS

- Change in vegetation structure
- Decrease in trees
- Decrease in vegetation
- Increase in noise
- Increase in soil disturbance

DESCRIPTION
While the start and end dates for vegetation removal indicate a 13-month duration, vegetation will only be removed in the spring or fall of 2023 for the utility relocation along NYS Route 9D and between January 1, 2024 and March 31, 2024 for the bridge and trail connector construction. Details are provided below.

The project would include removal of trees and brush between the northbound platform and MNR pedestrian overpass and along the MNR right-of-way within the Project Site. Relocation of the overhead power lines from the west side of NYS Route 9D to the east side of NYS Route 9D would require tree removal and installation of new poles along the east side of the road. Tree removal for this activity would take about 8 weeks. Tree and vegetation removal would also be required to construct the at-grade portion of the trail, parking areas, comfort stations, northbound MNR platform, stormwater management practices, and stone trail banks. Most of the tree clearing would occur directly along NYS Route 9D and the MNR tracks. Some larger trees have been identified to remain and would be protected during construction. All tree removal would be conducted between November 1 and March 31 to minimize potential impacts to wildlife. A SWPPP has been developed for the Project in accordance with NYSDEC requirements to minimize the potential effects of ground disturbance associated with the Project and tree removal. Native vegetation would be planted to permanently restore the disturbed areas.

1.4.5.5 LANDSCAPING/RESTORATION

ACTIVITY START DATE
September 01, 2024

ACTIVITY END DATE
November 30, 2025

STRESSORS

- Change in vegetation
- Change in herbicides

DESCRIPTION
Hardscaping and post-construction landscaping would be completed in stages with planting periods occurring between September and November 2024 and between March and May 2025. Landscaping and restoration at the bridge site would be completed in the fall of 2025. There would be a decrease in vegetation resulting from clearing of brush and trees to prepare for construction of the Project components. All temporarily disturbed areas and some of the existing informal/social trails would be restored through planting of native vegetation. Closure of the social trails would reduce visitor use of these areas and allow plantings to become established over time. The vegetation structure may change temporarily with the Project because larger trees and established brush would be removed for its construction. However, trees would be replanted and native vegetation would take the place of cleared areas within the Project Site. Invasive species would be removed from some wetland areas and along the MNR tracks and NYS Route 9D and would install new plantings that are consistent with OPRHP's Native Plants Policy.

1.4.5.6 MULTI-USE PATH CONSTRUCTION

ACTIVITY START DATE
March 01, 2024

ACTIVITY END DATE
June 15, 2025

STRESSORS

- Change in vegetation structure
- Change in surface runoff
- Change in vehicle traffic
- Increase in noise

DESCRIPTION
During construction of the trail, there would be an increase in human activity, vehicle use, and noise from construction equipment. These would be temporary impacts, as the trail itself would not be expected to result in increased visitorship. Trail construction would require grading to prepare the site and stabilize the shoreline to facilitate delivery of equipment and materials by barge to the west side of the MNR tracks. Most of the trail would be constructed on the east side of the MNR tracks using land-based equipment that would arrive to the site via NYS Route 9D. Site preparation activities would include implementation of erosion and sediment control measures, tree clearing, grubbing, and grading for construction of the at-grade portion of the trail, parking areas, comfort stations, northbound MNR platform, stormwater management practices, and stone trail banks. The parking areas would be paved and crushed stone would be laid for the trail. An excavator would be used to create an adjoining basement for the comfort stations to house a composting toilet system. Lighting would be installed at the reconstructed northbound and southbound MNR platforms. The lights would be downward facing with cut-off lens.

The trail would include a bridge crossing over the MNR tracks in the southern portion of the Project Site near the existing NYCDEP Hudson River Drainage Chamber. The bridge would support pedestrian use as part of the trail as well as vehicle access for NYCDEP to the Drainage Chamber. Construction of the eastern abutment of the bridge would be facilitated from land via NYS Route 9D, but most of the bridge deck over the tracks and the western abutment would be constructed from the Hudson River via barges because heavy equipment is not permitted to cross the MNR tracks. Staging and site access for the eastern abutment would use the same staging area used for the rest of the trail and related amenities east of the MNR tracks, and would not require additional clearing of trees or vegetation. Construction on the west side of the MNR tracks would require temporary shoreline stabilization accomplished through minor grading of the shoreline and placement of riprap over geotextile. This would allow for the transfer of equipment, materials, and personnel between the barges and the Project Site. Barges supporting the construction activities would be used between February 2024 and June 2025, including bridge and platform construction as well as some tree removal.

1.4.5.7 PREPARE THE PROJECT SITE (TERRESTRIAL)

ACTIVITY START DATE
March 01, 2023

ACTIVITY END DATE
November 30, 2025

STRESSORS

- Change in vegetation structure
- Decrease in trees
- Decrease in vegetation
- Change in surface runoff
- Change in vehicle traffic
- Increase in noise

DESCRIPTION
Site preparation for the trail includes the implementation of erosion and sediment control measures, vegetation removal, grubbing, and grading to establish construction work zones and staging and material storage areas. These activities would take place along the at-grade portion of the trail, parking areas, comfort stations, northbound MNR platform, stormwater management practice locations, and stone trail banks. Tree removal for the utility relocation along NYS Route 9D would be conducted in the spring or fall of 2023. There would be temporary increases in human activity, vehicle use, and equipment noise during site preparation activities. Erosion and sediment control measures (e.g., silt fencing, inlet protection, surface stabilization, and dust control) would be implemented in accordance with the SWPPP developed for the Project to minimize the potential for soil erosion and discharge of sediments to nearby waterbodies during construction.

1.4.5.8 RIPRAP PLACEMENT

ACTIVITY START DATE
June 01, 2024

ACTIVITY END DATE
June 30, 2024

STRESSORS
- Increase in soil disturbance

DESCRIPTION
Temporary shoreline stabilization along 260 linear feet of the shoreline in the southern portion of the Project Site would involve the placement of riprap armor stone atop geotextile. This would facilitate the movement of equipment, materials, and personnel between the barges and the Project Site during bridge construction on the western side of the MNR tracks. The geotextile and riprap would be removed once bridge construction is complete and the shoreline would be restored through minor grading and planting of native vegetation. Removal would take place over about 4 weeks in June 2025.

1.4.6 ANTICIPATED ENVIRONMENTAL STRESSORS

Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.

1.4.6.1 ANIMAL FEATURES

Individuals from the Animalia kingdom, such as raptors, mollusks, and fish. This feature also includes byproducts and remains of animals (e.g., carrion, feathers, scat, etc.), and animal-related structures (e.g., dens, nests, hibernacula, etc.).

1.4.6.2 PLANT FEATURES

Individuals from the Plantae kingdom, such as trees, shrubs, herbs, grasses, ferns, and mosses. This feature also includes products of plants (e.g., nectar, flowers, seeds, etc.).

1.4.6.2.1 CHANGE IN VEGETATION

ANTICIPATED MAGNITUDE

Changes in vegetation would result from clearing and grubbing associated with site preparation, trail construction, and shoreline stabilization. This would include removal of trees within the Project Site ranging in size from less than 3 inches DBH up to about 30 inches DBH. The vegetation structure may change temporarily with the Project because larger trees and established brush would be removed for its construction. However, trees would be replanted and native vegetation would take the place of cleared areas within the Project Site. Disturbed areas would be replanted with native vegetation when construction is complete in accordance with the landscaping plan developed for the Project, and some of the informal paths currently in use would be blocked off and replanted with native vegetation. The planting plan includes herbaceous, shrub, and tree species throughout the Project Site along the trail. It also includes protective measures for the root systems of trees left in place within the Project Site (i.e., hand/pneumatic excavation within driplines of existing trees). Invasive species would be removed from some wetland areas and along the MNR tracks and NYS Route 9D and the Project would install new plantings that are consistent with OPRHP's Native Plants Policy.

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Landscaping/restoration

1.4.6.2.2 CHANGE IN VEGETATION STRUCTURE

ANTICIPATED MAGNITUDE

(Same as change in vegetation)

Changes in vegetation would result from clearing and grubbing associated with site preparation, trail construction, and shoreline stabilization. This would include removal of trees within the Project Site ranging in size from less than 3 inches DBH up to about 30 inches DBH. Disturbed areas would be replanted with native vegetation when construction is complete in accordance with the landscaping plan developed for the Project, and some of the informal paths currently in use would be blocked off and replanted with native vegetation. The planting plan includes herbaceous, shrub, and tree species throughout the Project Site along the trail. It also includes protective measures for the root systems of trees left in place within the Project Site (i.e., hand/pneumatic excavation within driplines of existing trees) and would only plant native species in accordance with OPRHP requirements.

STRESSOR LOCATION

LEGEND


Project footprint
Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Cut above-ground vegetation
- Prepare the project site (terrestrial)
- Multi-use path construction

1.4.6.2.3 DECREASE IN TREES

ANTICIPATED MAGNITUDE

Relocation of the overhead power lines from the west side of NYS Route 9D to the east side of NYS Route 9D would require tree removal and installation of new poles along the east side of the road. Tree and vegetation removal would also be required to construct the at-grade portion of the trail, parking areas, comfort stations, northbound MNR platform, stormwater management practices, and stone trail banks. Most of the tree clearing would occur directly along NYS Route 9D and the MNR tracks. Some larger trees have been identified to remain and would be protected during construction. All tree removal would be conducted between November 1 and March 31 to minimize potential impacts to wildlife. A SWPPP has been developed for the Project in accordance with NYSDEC requirements to minimize the potential effects of ground disturbance associated with the Project and tree removal. Native vegetation would be planted to permanently restore the disturbed areas.

STRESSOR LOCATION

LEGEND


Project footprint
Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Cut above-ground vegetation
- Prepare the project site (terrestrial)

1.4.6.2.4 DECREASE IN VEGETATION

ANTICIPATED MAGNITUDE

The Project would result in a temporary decrease in vegetation between site preparation, when vegetation is removed, and restoration/landscaping at the site when construction is finished. Tree and vegetation removal would be required to construct the at-grade portion of the trail, parking areas, comfort stations, northbound MNR platform, stormwater management practices, and stone trail banks. Most of the tree clearing would occur directly along NYS Route 9D and the MNR tracks. Some larger trees have been identified to remain and would be protected during construction. All tree removal would be conducted between November 1 and March 31 to minimize potential impacts to wildlife. A SWPPP has been developed for the Project in accordance with NYSDEC requirements to minimize the potential effects of ground disturbance associated with the Project and tree removal. Native vegetation would be planted to permanently restore the disturbed areas.

STRESSOR LOCATION

LEGEND


Project footprint
Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Cut above-ground vegetation
- Prepare the project site (terrestrial)

1.4.6.2.5 INCREASE IN NATIVE VEGETATION

ANTICIPATED MAGNITUDE

The landscaping plan for the Project would include planting of native trees, shrubs, and herbaceous species in all disturbed areas within the Project Site. Invasive species would also be removed from some wetland areas and along the MNR tracks and NYS Route 9D. With the removal of invasive species and the planting of native species, it is expected that the Project would increase or maintain the occurrence of native vegetation within the Project Site.

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Multi-use path

1.4.6.3 AQUATIC FEATURES

Bodies of water on the landscape, such as streams, rivers, ponds, wetlands, etc., and their physical characteristics (e.g., depth, current, etc.). This feature includes the groundwater and its characteristics. Water quality attributes (e.g., turbidity, pH, temperature, DO, nutrients, etc.) should be placed in the Environmental Quality Features.

1.4.6.4 CHEMICALS / CONTAMINANTS

Substances that pollute, spoil, or poison the environment (e.g., herbicides, heavy metals, oil, etc.).

1.4.6.4.1 CHANGE IN HERBICIDES

ANTICIPATED MAGNITUDE

Intensive and adaptive invasive species management is anticipated. Prior to construction, a site-specific invasive species inventory would be conducted to help identify and prioritize species for intensive management. A detailed management plan would provide appropriate methodologies and timing for removals related to the unique requirements of each species. Invasive species would be removed primarily through mechanical methods, but the use of chemical control such as herbicides may be required in controlled locations dependent on which species are documented onsite. Methods for invasive species control would be developed to be sensitive to the riparian corridor. The plan would address pre-, during, and post-construction activities and would be used as an ongoing guide for maintenance of the project area. The proposed plan for replanting the site has been designed to promote growth of diverse, native species that can outcompete opportunist species.

STRESSOR LOCATION

LEGEND

Project footprint


Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Landscaping/restoration

1.4.6.5 HUMAN FEATURES

Man-made Structures on the landscape (e.g., roads, trails, buildings, bridges, farm fields, etc.).

1.4.6.5.1 CHANGE IN HUMAN STRUCTURES

ANTICIPATED MAGNITUDE

The Project would construct a shared-use trail with a bridge over the MNR tracks where there currently is not a formal trail, along with paved parking areas and new comfort stations. Informal/social paths along the MNR right-of-way and informal parking areas along NYS Route 9D would be replaced with formal structures, resulting in changes to the amount and type of human structures at the Project Site. The Project would formalize trails that are already in place and currently used by hikers and pedestrians, improve visitor safety, and enhance access to the site through the use of accepted accessibility standards. It is not expected to result in increased visitorship, but would improve existing use of the Site.

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Multi-use path

1.4.6.6 LANDFORM (TOPOGRAPHIC) FEATURES

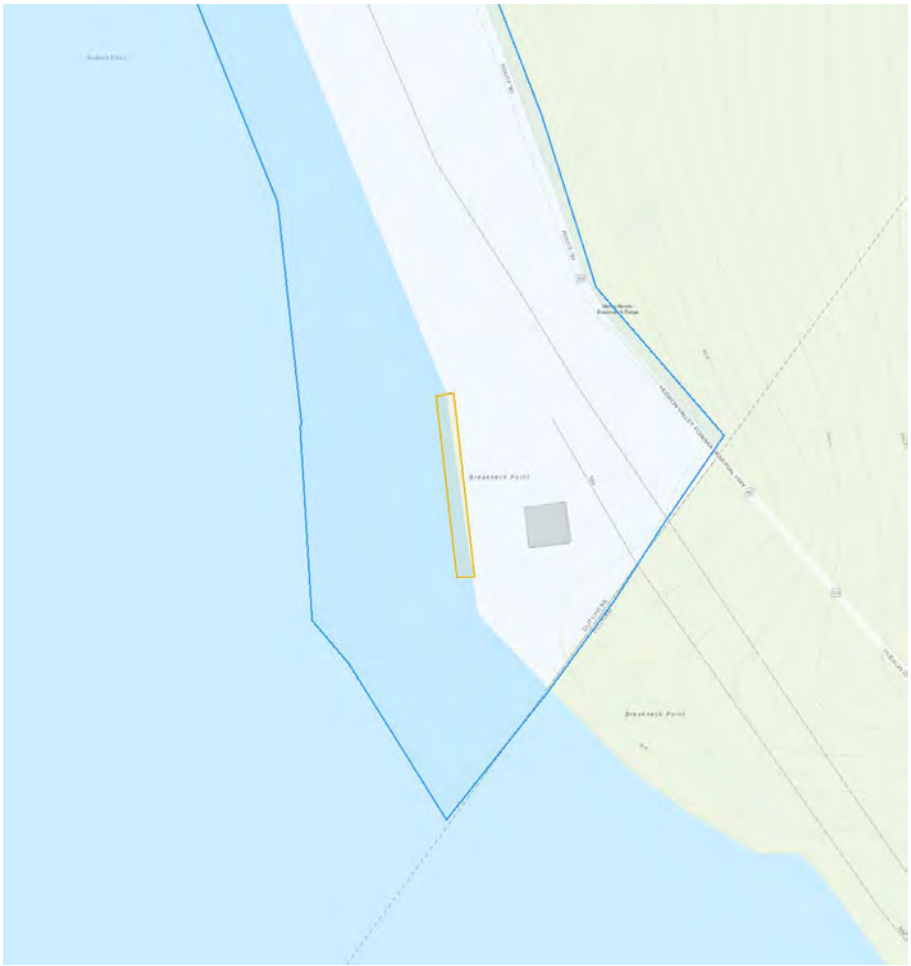
Topographic (landform) features that typically occur naturally on the landscape (e.g., cliffs, terraces, ridges, etc.). This feature does not include aquatic landscape features or man-made structures.

1.4.6.6.1 CHANGE IN SHORELINE

ANTICIPATED MAGNITUDE

The Project would result in temporary stabilization of approximately 260 linear feet of shoreline to facilitate bridge construction west of the MNR tracks. This would comprise minor grading and placement of riprap armor stones atop geotextile on the shoreline in the southern portion of the Project Site near the NYCDEP Hudson River Drainage Chamber. All armor stone and geotextile would be removed when bridge construction is complete, and the shoreline would be planted with native vegetation.

STRESSOR LOCATION



LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Barge staging

1.4.6.6.2 INCREASE IN IMPERVIOUS SURFACES

ANTICIPATED MAGNITUDE

The Project would result in increased impervious surface from the bridge over the MNR tracks and the paved parking areas. However, the Project would minimize the overall amount of new impervious surfaces by using flagstone pavers on crushed stone at the comfort stations, permeable pavers in portions of the parking lots, and crushed stone surfacing for on-grade sections of the trail.

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Multi-use path

1.4.6.7 ENVIRONMENTAL PROCESSES

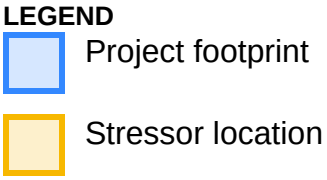
Abiotic processes that occur in the natural environment (e.g., erosion, precipitation, flood frequency, photoperiod, etc.).

1.4.6.7.1 CHANGE IN SURFACE RUNOFF

ANTICIPATED MAGNITUDE

Erosion and sediment control measures (e.g., silt fencing, inlet protection, surface stabilization, dust control) would be implemented in accordance with the SWPPP prepared for the Project to minimize the potential for sediment to discharge to the Hudson River during construction. Native vegetation would be planted to restore areas temporarily disturbed during construction. The new steward station may incorporate a green roof to help reduce runoff. The Project would minimize the amount of new impervious surface, thereby minimizing the potential changes in surface runoff at the Project Site. Through grading efforts and the addition of vegetated swales, the Project would increase the stormwater runoff storage volume between NYS Route 9D and the MNR tracks from approximately 38,400 cubic feet to 126,000 cubic feet. Stormwater runoff from the bridge deck would infiltrate through gaps in the surface and fall 20 feet to the ground surface beneath. Landscape design like erosion resistant ground surface (e.g., gravel, vegetation) would be incorporated outside the MNR right-of-way.

STRESSOR LOCATION


LEGEND
Project footprint
Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Multi-use path
- Prepare the project site (terrestrial)
- Multi-use path construction

1.4.6.8 HUMAN ACTIVITIES

Human actions in the environment (e.g., fishing, hunting, farming, walking, etc.).

1.4.6.8.1 CHANGE IN ARTIFICIAL LIGHTING

ANTICIPATED MAGNITUDE

The Project would include the installation of lighting at the MNR platforms in accordance with MNR safety requirements. New lighting would also be installed at the comfort stations, parking areas, on the trail, and for signage. The lights would be downward facing and would not shine into the trees or surrounding properties. All new lighting would be dark sky compliant and would not shine onto adjacent properties or into the trees.

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Multi-use path

1.4.6.8.2 CHANGE IN VEHICLE TRAFFIC

ANTICIPATED MAGNITUDE

The Project Site is along NYS Route 9D and is already heavily trafficked by vehicles, visitors, and trains. Construction of the Project would result in temporary changes in vehicle traffic. Parking for the general public along NYS Route 9D would be prohibited during construction, which would offset the increase in construction vehicle trips and equipment traveling to and from the site during the construction period. The Project is not expected to result in a significant increase in visitorship and vehicles to the Site following construction. Rather it is intended to enhance existing use with new amenities and accessibility and improve safety and parking conditions.

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Prepare the project site (terrestrial)
- Multi-use path construction

1.4.6.8.3 INCREASE IN BOAT TRAFFIC

ANTICIPATED MAGNITUDE

The Project would result in a temporary increase in boat traffic during construction of the bridge over the MNR tracks. Construction of the bridge on the west side of the MNR tracks requires barge support because heavy equipment is not permitted to cross over the tracks. Up to 4 barges at a time would be used including a logistics barge for staging, a materials barge that would periodically moor to the logistics barge for deliveries, a bridge barge to deliver and erect major bridge components, and a crane barge for bridge assembly. A debris scow would also enter and leave the Project Site periodically to remove debris from the work site. The barges may be supported by small crew vessels or tugs, as necessary. Each barge used during construction would be secured by spud piles and would maintain separation from the river bottom at all times.

STRESSOR LOCATION

LEGEND

Project footprint


Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Barge staging

1.4.6.8.4 INCREASE IN NOISE

ANTICIPATED MAGNITUDE

Construction would result in temporary increases in noise related to equipment use and Project activities. However, the Project is located directly adjacent to the MNR tracks, where high-speed trains pass through multiple times a day. The loudest noise-producing activities from the Project would take place generally between 8:00 AM and 3:00 PM on workdays and would entail the installation of drilled piles for the bridge foundation and the potential use of hydraulic mounted hammers if bedrock is encountered. There would be occasional noise generated from truck deliveries that is not anticipated to exceed acceptable noise thresholds and such noise would be limited to a few hours each workday, at most. The Project would not result in any permanent increases in noise after construction.

STRESSOR LOCATION

LEGEND

Project footprint

Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Cut above-ground vegetation
- Prepare the project site (terrestrial)
- Multi-use path construction

1.4.6.8.5 INCREASE IN SOIL DISTURBANCE

ANTICIPATED MAGNITUDE

(Same as change in topography)

Site preparation for the Project would include minor grading throughout the site, including to approximately 0.095 acres of freshwater wetland between the MNR tracks and NYS Route 9D. Grading, removal of invasive species, and planting of native vegetation within the wetland would support drainage and enhance its ecological function. Grading throughout the Project Site would generally preserve existing drainage patterns, with the addition of a series of swales as a stormwater management measure. The swales would be vegetated and would reduce runoff and promote infiltration through soil improvement and would reduce stormwater impacts and minimize flood impacts to NYS Route 9D and MNR properties and operations. The Project would not result in permanent increases in soil disturbance following construction.

STRESSOR LOCATION

LEGEND


Project footprint
Stressor location

CONSERVATION MEASURES

No conservation measures for this stressor

STRUCTURES AND ACTIVITIES

- Riprap placement
- Cut above-ground vegetation

1.4.6.9 MISCELLANEOUS

Miscellaneous should only be used if the created feature does not fit into one of the other categories or if the creator is not sure in which category it should be placed.

1.5 ACTION AREA

LEGEND

Project footprint

Stressor location

1.6 CONSERVATION MEASURES

1.6.1 CLEAN AND MAINTAIN EQUIPMENT

DESCRIPTION

All vehicles, machinery, and equipment, including technical gear and personal protective equipment, scheduled to work within the project site must be clean, free of invasive species (e.g. plants, invertebrates, fungus), free of leaks, and in good working condition. Clean and disinfect equipment before arrival at the project site. Inspect all vehicles for leaks immediately prior to in-water or cofferdam work. Repair any leaks and clean construction vehicles thoroughly to remove any residual dirt, mud, debris, grease, motor oil, hydraulic fluid, coolant, or other hazardous substances. Inspections, repairs, cleaning, and/or servicing will be conducted before the vehicle, equipment, or machinery is transported into the field. Inspect structures and equipment on a regular basis. Ensure that all structures and equipment are in good working order, replace parts and perform updates and maintenance on a proactive schedule in order to prevent failure of components. Ensure that all discharge, runoff and/or harmful materials will be appropriately controlled to prevent entry into the project site with particular attention to sensitive habitats, including karst areas, waterbodies and riparian zones. Clean, disinfect, or replace personal protective equipment as directed by appropriate agency guidelines in order to prevent the spread of contaminants and/or wildlife disease.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- native vegetation (Milkweed)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.2 DESIGN PROJECTS TO REDUCE IMPACTS TO HABITAT

DESCRIPTION

Place structures and design the layout and grade of the project area in such a way as to avoid impacts as a result of increased human presence, and the facilities and structures associated, that will impact natural conditions associated with habitats of listed species. Engineer projects to mimic or restore natural environments in order to avoid impacts to sensitive habitats that could change sedimentation rates, surface runoff, or micro-climate associated with these habitats by creating a physical alteration in the species habitat. Include educational signage to enhance education and understanding of listed species and how human interactions may impact local populations.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- native vegetation (Milkweed)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.3 ENGINEER PROJECT TO MIMIC NATURAL GRADE

DESCRIPTION

Place structures and design the layout and grade of the project area in such a way as to avoid impacts to habitat that will change surface flow patterns or impact natural conditions. Engineer projects to mimic or restore natural environments in order to avoid impacts to sensitive habitats that could change erosion, sedimentation rates, surface runoff, or micro-climate associated with these habitats by creating a physical alteration in the species habitat. Incorporate measures to ensure that sensitive habitats are protected from erosion and toxicity as a result of changes to surface flow patterns.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- native vegetation (Milkweed)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.4 IMPLEMENT EROSION CONTROL MEASURES

DESCRIPTION

Implement erosion control measures (e.g., silt fencing, hay bales, soil stabilization matting) to avoid increased erosion that could directly or indirectly impact endangered species. Erosion and Sediment Control measures must strictly adhere to State and Federal guidance that has been provided for your project area and project type. Inspect Erosion and Sediment Control devices regularly during construction to ensure efficacy and prevent failure of devices. Inspect devices prior to expected high rainfall occurrences. Ensure removal of all materials after the construction activity ends.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- native vegetation (Milkweed)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.5 IMPLEMENT SPILL PROTECTION PLAN

DESCRIPTION

Implement a Spill Prevention Plan that is consistent with any state or federal guidance provided for your project area. Submit the proposed plan to the Service for approval prior to the initiation of construction. Retain a Service-approved plan on-site at all times. Review the plan with each on-site construction worker prior to their initial entry onto the site. Post the plan in a prominent, on-site location for easy reference. Report any spills of motor oil, hydraulic fluid, coolant, or similar fluids to the National Response Center (800-424-8802) immediately and to the appropriate Service office within 48 hours. If a spill occurs near known or assumed listed species habitat, clean any fuel or oil spills immediately using approved protocols.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- native vegetation (Milkweed)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.6 INSTALL SURFACE RUNOFF STRUCTURES

DESCRIPTION

Design and install structures that will capture surface runoff and filter runoff toxicity before it enters habitats with known or assumed presence of listed species. Design of structures should be suitable for the habitat and the types of substances expected to be present based on activities that are located in proximity to the structures.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.7 RESTRICT ARTIFICIAL LIGHTING

DESCRIPTION

Restrict the use of artificial lighting to only the minimum required for safety. Ensure that lighting does not significantly increase illumination above ambient conditions and incorporate full cut-off, downward facing lights directed away from forested areas during the active season.

DIRECT INTERACTIONS

- disturbance

1.6.8 RESTRICT NOISE AND PERCUSSIVES

DESCRIPTION

Limit all work that includes increasing percussives (vibration) or noise levels more than 10% above background level within 300 feet of known or potential maternity roosts during the active season, and within 0.5 mile of known or potential hibernacula during winter hibernation. Dampen percussives and limit noise associated with activities whenever practicable.

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.9 RESTRICT OFF-ROAD ACTIVITIES

DESCRIPTION

Restrict use of vehicles off-road in locations where presence of species is known or assumed. Avoid driving heavy equipment/vehicles in sensitive habitats (e.g., wetlands, streams, karst) whenever possible. Avoid use of vehicles in areas where soil disturbance would result in increased sedimentation or decreased water quality. Only use vehicles on already-established roads or paths. Refuel vehicles only in the project specific staging areas.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.10 RESTRICT ROAD TRAVEL

DESCRIPTION

Reduce use of roads and access roads within 300 feet of known or assumed listed species locations (e.g hibernacula, maternity roosts, bachelor colonies). If access can be controlled, limit use to the minimum number of vehicles necessary for the project to be completed. Whenever possible, gate access roads to prevent unnecessary use. Deploy speed limit signs or speed bumps to limit speeds along roadways where listed species may be present to avoid injury or death, and to reduce noise associated with vehicle traffic.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.11 RESTRICT SITING OF PROJECT COMPONENTS

DESCRIPTION

Restrict siting of project components near known or assumed occupied habitat for listed species. Design project to avoid siting permanent or temporary components and their associated infrastructure in or within close proximity to listed species or their habitats to reduce the likelihood of impacting those species. Minimize activities that could result in alteration of suitable habitat or direct harm to listed species. Apply appropriate time of year restrictions and buffer zones between project activities and known or assumed current species records. Contact appropriate State and Federal agencies to determine the time of year restrictions and size of buffers to be applied. Surveys should be conducted in suitable habitat in order to determine species presence or probable absence. Avoid all activities that may remove, displace, injure or kill listed species, as well as the physical alteration of suitable habitat if the species are not present if the result of the activity will impair essential behavioral patterns.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- auditory disturbance
- collisions
- disturbance

1.6.12 RESTRICT THE USE OF HERBICIDES

DESCRIPTION

A detailed invasive species management plan will provide appropriate methodologies and timing for removals. Invasive species would be removed primarily through mechanical methods, but the use of chemical control such as herbicides may be required in controlled locations depending on which invasive species are documented onsite. Methods for invasive species control will be developed to be sensitive to the riparian corridor.

Limit use of herbicides in order to maintain healthy vegetation communities. Limit use of herbicides to that needed in order to maintain or restore natural plant vegetation communities that contain a high abundance and diversity of native plant species. Only apply herbicide locally, to individual plants or stands of target species. Only use herbicides as directed on the manufacturer's label. No aerial application of chemicals used for rodent or weed control will occur.

RESOURCE NEEDS

- insects (type: flying)
- insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)
- open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)
- trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)
- trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)

DIRECT INTERACTIONS

- collisions
- disturbance

1.6.13 SIGN OR MARK SENSITIVE HABITAT

DESCRIPTION

If suitable habitat or presence of listed species has been determined through surveys, mark sensitive areas in order to exclude project activities and avoid impacts to listed species. Examples may include signs or rebar posts. Ensure removal of all materials after activities are completed. If long-term impacts are expected due to increased human presence, install fences and educational signage to prevent entry into sensitive habitats where feasible.

DIRECT INTERACTIONS

- disturbance

1.7 PRIOR CONSULTATION HISTORY

Previous consultation includes the Northeast Endangered Species Determination Key letter obtained through IPaC on February 9, 2023.

1.8 OTHER AGENCY PARTNERS AND INTERESTED PARTIES

New York City Department of Environmental Protection; New York State Department of Environmental Conservation; New York State Department of State; New York State Department of Transportation; Metropolitan Transportation Authority

1.9 OTHER REPORTS AND HELPFUL INFORMATION

None

2 SPECIES EFFECTS ANALYSIS

This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).

These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.

2.1 INDIANA BAT

2.1.1 STATUS OF THE SPECIES

This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.1.1.1 LEGAL STATUS

The Indiana Bat is federally listed as 'Endangered' and additional information regarding its legal status can be found on the ECOS species profile.

2.1.1.2 RECOVERY PLANS

Available recovery plans for the Indiana Bat can be found on the ECOS species profile.

2.1.1.3 LIFE HISTORY INFORMATION

The Indiana bat is a medium-sized Myotis, closely resembling the little brown bat (Myotis lucifugus) but differing in coloration. Its fur is a dull grayish chestnut rather than bronze, with the basal portion of the hairs on the back a dull-lead color. This bat's underparts are pinkish to cinnamon, and its hind feet are smaller and more delicate than in M. lucifugus. The calcar (heel of the foot) is strongly keeled.

IDENTIFIED RESOURCE NEEDS

Hibernacula

Humidity: high and temperature: <10°c (50.0°f) but infrequently drops below freezing, and the temperature is relatively stable.

Insects

Type: flying

Open water

Type: streams, rivers, ponds, wetlands, lakes, road ruts

Travel corridors

Location: between two whole patches of forests. and type: hedgerow, riparian corridor, forest edge

Trees

Size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts

2.1.1.4 CONSERVATION NEEDS

Conservation needs for Indiana bat are included in the recovery plan for the species at https://ecos.fws.gov/docs/recovery_plan/070416.pdf (https://ecos.fws.gov/docs/recovery_plan/070416.pdf)

2.1.2 ENVIRONMENTAL BASELINE

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.1.2.1 SPECIES PRESENCE AND USE

Indiana bat has the potential to occur in the Project area. NY Natural Heritage Program (NYNHP) has records of a hibernaculum and maternity colonies to the east, north, and across the Hudson River to the west of the Project Site, but all of these occurrences are more than five miles away. While Indiana bats have not been documented anywhere within Hudson Highlands State Park Preserve (HHSPP), they have not specifically been surveyed for in the Project area and there is potential habitat within the wooded areas near Breakneck Ridge that could be used for foraging or roosting. Foraging and roosting of adult or juvenile bats could occur during any time of year except November through March when Indiana bats would be hibernating.

2.1.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

Outside their winter hibernation period, Indiana bats use varied habitats including riparian, bottomland/floodplain, and upland forests, often within agricultural landscapes. They typically roost near forest gaps or edges where trees receive direct sunlight for much of the day and forage along forest edges or over fields and other large open habitats. While Indiana bats are not known to occur anywhere within Hudson Highlands State Park Preserve, there is potential habitat for them within the wooded areas near Breakneck Ridge that could be used for foraging or roosting. Trees sufficient for roosting would include those with cracks or crevices, shingled bark, or other features where bats could seek shelter, and trees meeting this description do occur at the Project Site. While minimal roosting habitat may be available onsite, the Project Site is along transportation rights-of-way and does not support a significant tract of wooded area nor does it connect larger forested areas that would be able to support a greater population of bats.

2.1.2.3 HABITAT CONDITION (GENERAL)

INSECTS (TYPE: FLYING)
Flying insects are present throughout the Project Site. Removal of vegetation during site preparation would directly reduce the amount of available habitat for flying insects within the Project Site, but they would be able to relocate to undisturbed areas just outside the work areas. After construction, native vegetation would be planted throughout the Project Site and would provide additional habitat for flying insects, including pollinators.

OPEN WATER (TYPE: STREAMS, RIVERS, PONDS, WETLANDS, LAKES, ROAD RUTS)
The Project would take place along the Hudson River and freshwater wetlands are present between the MNR tracks and NYS Route 9D where a portion of the trail would be constructed.

TREES (SIZE: > OR = 5 INCHES DBH, SPATIAL ARRANGEMENT: WITHIN 1000 FEET OF FOREST, STRUCTURE: CRACKS, CREVICES, LOOSE BARK, TYPE: DEAD, NEARLY DEAD, AND LIVING WITH DEAD PARTS)
Trees that would be removed for the Project are between the MNR tracks and NYS Route 9D and along NYS Route 9D where utility relocation would take place. There is a significant amount of interior forest habitat within Hudson Highlands State Park Preserve east of NYS Route 9D that would be unaffected by the Project. Some trees that would be removed are greater than 5 inches DBH and/or have loose bark, cracks, or crevices. Dead or partially dead trees would also be removed.

2.1.2.4 INFLUENCES
General activities or influences that have affected the Indiana bat population are described in the species recovery plan at: https://ecos.fws.gov/docs/recovery_plan/070416.pdf (https://ecos.fws.gov/docs/recovery_plan/070416.pdf)

The Project would be developed on previously disturbed lands associated with the NYCDEP Hudson River Drainage Chamber, MNR right-of-way, NYS Route 9D, dirt parking areas, MNR access roads, the Breakneck Ridge MNR station, and the heavily trafficked Breakneck Ridge Trail. There is periodic tree maintenance along the tracks and where trees overhang the existing utility lines along NYS Route 9D. The Project would be established on informal/social paths that are currently used by visitors. Existing vegetation onsite is limited to areas along the parking areas and walking trails including scrubby upland woody vegetation, a dense understory of scrub-shrub vegetation, and a series of trees and snags along the rights-of-way. Additionally, there is a vast tract of forest interior habitat in the vicinity that would provide more suitable habitat for Indiana bats compared to the limited and previously disturbed areas within the Project Site.

2.1.2.5 ADDITIONAL BASELINE INFORMATION

Known hibernacula for Indiana bat do not occur within 5 miles of the Project Site.

2.1.3 EFFECTS OF THE ACTION

This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.1.3.1 INDIRECT INTERACTIONS

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
Hibernacula (humidity: high and temperature: <10°c (50.0°f) but infrequently drops below freezing, and the temperature is relatively stable.)			***This resource is not present in the action area*** There are no known hibernacula for Indiana bat within 5 miles of the Project Site based on correspondence with OPRHP.	***There will be no impacts to this resource, so no individuals will be affected.***
Insects (type: flying)	Increase in native vegetation Increase in soil disturbance Change in vegetation Decrease in vegetation	Install surface runoff structures Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict the use of herbicides	***There will be no impacts to this resource*** Replanting of native vegetation once construction is complete would provide habitat for flying insects. Vegetated habitat would be improved through the removal of invasive species and their replacement with native species. Temporary impacts during construction would not result in changes to the population of flying insects in the area given the amount of unaffected habitat that would continue to be available just outside the Project Site boundaries.	***There will be no impacts to this resource, so no individuals will be affected.***
Open water (type: streams, rivers, ponds,	Increase in impervious surfaces	Install surface runoff structures	Temporary shoreline stabilization along 260 linear feet of the Hudson River and	***No individuals will be affected***

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
wetlands, lakes, road ruts)	Change in human structures Change in vegetation	Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict the use of herbicides	the use of that shoreline for transfer of equipment and materials between the barges and the Project Site would temporarily restrict that portion of the shoreline for use by bats. The riprap would be entirely removed following bridge construction and the shoreline would be restored through replanting of native vegetation. Minor grading would take place within approximately 0.095 acres of freshwater wetland between NYS Route 9D and the MNR tracks. This grading would serve to support existing drainage patterns and enhance the ecological functions of the wetland, along with the removal of invasive species and planting of native wetland vegetation. Vegetated swales implemented along the trail for stormwater management may also provide new sources of intermittent surface water.	The Project would increase the available wetland area by approximately 0.10 acres through the grading efforts and the vegetated swales could provide new sources of surface water after rainfall. The Hudson River shoreline would be returned to pre-construction conditions following bridge construction. The minimal changes to surface waters within suboptimal bat habitat would not result in impacts to Indiana bat, especially given the amount of unaffected Hudson River shoreline and other surface waters in the vicinity.

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
Travel corridors (location: between two whole patches of forests. and type: hedgerow, riparian corridor, forest edge)			***This resource is not present in the action area*** The Project Site is on previously disturbed land next to road and rail rights-of-way and does not connect the listed habitats.	***There will be no impacts to this resource, so no individuals will be affected.***
Trees (size: > or = 5 inches dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, loose bark, type: dead, nearly dead, and living with dead parts)	Decrease in trees Decrease in vegetation	Install surface runoff structures Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict road travel Restrict the use of herbicides	While Indiana bats have not been documented anywhere within the Hudson Highlands State Park Preserve and there are no known hibernacula or maternity colonies within 5 miles of the Site, the species have not specifically been surveyed for in this area and there is potential habitat within the wooded areas near Breakneck Ridge that could be used for foraging or roosting. Some of the trees that would be removed could serve as roosting habitat given the occurrence of loose bark, cracks, crevices, and dead or partially dead trees and snags.	***No individuals will be affected*** As a precautionary measure, all tree clearing would be limited to the winter hibernation period between November 1 and March 31 to avoid the potential for direct impacts to Indiana bats during the active season. Tree removal would not be expected to result in impacts to individual bats given the limited potential habitat at the Project Site and the extent of more suitable habitat within the state park nearby.

2.1.3.2 DIRECT INTERACTIONS

DIRECT IMPACT	CONSERVATION MEASURES	INDIVIDUALS IMPACTED	IMPACT EXPLANATION
Auditory disturbance	Install surface runoff structures Restrict off-road activities Implement spill protection plan	Yes	If Indiana bats are present near the Project Site they may experience auditory disturbance during a typical workday (generally weekdays between 8:00 AM and 5:00 PM) related to construction vehicles

DIRECT IMPACT	CONSERVATION MEASURES	INDIVIDUALS IMPACTED	IMPACT EXPLANATION
	Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict noise and percussives		and equipment noise. Temporary construction noise would be expected to result in avoidance of the Project Site by wildlife sensitive to elevated noise levels, including bats. Any bats occurring within the limits of construction noise may relocate to forested areas near the Project Site that would be unaffected by construction. These effects would be temporary and would not result in long term impacts to the bat population in the area.
Collisions	Install surface runoff structures Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict noise and percussives	No	The Project Site does not provide significant habitat for Indiana bat and the occurrence of construction vehicles and equipment at the Site during construction would not result in increased risk of collision.
Disturbance	Install surface runoff structures Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict noise and percussives Sign or mark sensitive habitat	No	Indiana bat has the potential to occur in the Project Site where it contains roosting habitat, generally during the spring/summer months. All tree removal would be conducted during the hibernation period between November and March and would not have the potential to directly disturb foraging or roosting bats.

DIRECT IMPACT	CONSERVATION MEASURES	INDIVIDUALS IMPACTED	IMPACT EXPLANATION
	Restrict artificial lighting		

2.1.4 CUMULATIVE EFFECTS

The Project is part of a larger planned 7.5-mile shared-use trail (Fjord Trail) between Beacon and Cold Spring, New York, which is being evaluated separately in a Generic Environmental Impact Statement. The Fjord Trail would be partially within the HHSPP and would connect to other parks and heavily used trails along its length. Like the Project, the Fjord Trail construction would include some tree removal, all of which would be scheduled to take place during the hibernation period for bats, between November 1 and March 31. Periodic tree trimming/maintenance is also conducted along NYS Route 9D and the MNR tracks.

2.1.5 DISCUSSION AND CONCLUSION

DETERMINATION: NLAA

COMPENSATION MEASURES

All tree clearing would be limited to the winter hibernation period (November 1 to March 31) to avoid the potential for direct impacts to Indiana bats during the active season. Artificial lighting would be downward facing with a full cutoff lens or otherwise dark sky compliant. Construction activities would not take place at night.

2.2 MONARCH BUTTERFLY

2.2.1 STATUS OF THE SPECIES

This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.2.1.1 LEGAL STATUS

The Monarch Butterfly is federally listed as 'Candidate' and additional information regarding its legal status can be found on the ECOS species profile.

2.2.1.2 RECOVERY PLANS

Available recovery plans for the Monarch Butterfly can be found on the ECOS species profile.

2.2.1.3 LIFE HISTORY INFORMATION

Note - the monarch is a candidate species and not yet listed or proposed for listing. Consultation with U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act is not required for candidate species, like the monarch. We encourage agencies, however, to take advantage of any opportunity they may have to conserve the species.

For information on monarch conservation, visit https://www.fws.gov/savethemonarch/, http://www.mafwa.org/?page_id=2347, and, for the West, https://wafwa.org/committees-working-groups/monarch-working-group/.

Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots, present on the upper side of the wings. Adult monarchs are sexually dimorphic, with males having narrower wing venation and scent patches. The bright coloring of a monarch serves as a warning to predators that eating them can be toxic.

During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily Asclepias spp.), and larvae emerge after two to five days. Larvae develop through five larval instars (intervals between molts) over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals (cardenolides) as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks; overwintering adults enter into reproductive diapause (suspended reproduction) and live six to nine months.

In many regions where monarchs are present, monarchs breed year-round. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again.

IDENTIFIED RESOURCE NEEDS

Native vegetation

Milkweed

2.2.1.4 CONSERVATION NEEDS

Protection, restoration, enhancement and creation of habitat, highlighting the importance of restoring and enhancing milkweed and nectar resources. See Species Status Assessment Report, version 2.1, September 2020 (https://ecos.fws.gov/ServCat/DownloadFile/191345).

2.2.2 ENVIRONMENTAL BASELINE

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.2.2.1 SPECIES PRESENCE AND USE

Monarch butterflies are primarily found in open meadows and fields containing wildflowers, especially milkweed, and along coastal beaches with dunes or manmade butterfly gardens. While these habitats do not exist within the Project Site, milkweed has been observed within the Project Site and wildflowers that could provide habitat for adult monarch butterflies may also be present. Milkweed would also be included in the post-construction landscaping plan.

2.2.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

The monarch butterfly does not currently have a recovery plan. Milkweed has been observed in the Project Site during site reconnaissance, and there is the potential that certain vegetated areas on the edges of the affected woodland, along NYS Route 9D, or along the MNR tracks could support milkweed and other flowering plants. It is unlikely that the action area provides high quality habitat for monarchs, as it is bordered by heavily used transportation uses and is disconnected from larger open meadow areas. The Project Site is along the MNR tracks where herbicides may be used on track ballast and embankment side slopes, so the areas directly adjacent to the tracks are unlikely to support monarch habitat.

2.2.2.3 HABITAT CONDITION (GENERAL)

NATIVE VEGETATION (MILKWEED)
Milkweed has been observed during site reconnaissance for the Project. There is the potential for milkweed and other wildflowers to grow along the forest edge. The post-construction landscaping plan for the Project includes milkweed and other flowering native vegetation.

Project will be developed within approximately 12 acres of previously disturbed lands along roadways, rail right-of-way, and heavily trafficked trails, generally bounded by Route 9D to the east, the MNR tracks and Hudson River to the west, and the New York City Department of Environmental Protection (NYCDEP) Hudson River Drainage Chamber to the south. Limited vegetation is present within the parking areas and along the informal trails. The southern portion of the project site and the areas between Route 9D and the MNR tracks are dominated by upland and non-wetland vegetative communities including hardwood forested areas with a dense understory of scrub-shrub vegetation. The Hudson River shoreline comprises areas of riprap and scrubby upland woody vegetation. Milkweed could potentially grow along the edge of the vegetated areas but has not been observed.

2.2.2.4 INFLUENCES
Past influences include habitat loss and fragmentation. Present influences include limited habitat availability due to fragmentation and transportation uses. Habitat is not available directly adjacent to the MNR tracks due to the required use of herbicides to keep the rails clear.

2.2.2.5 ADDITIONAL BASELINE INFORMATION
No additional information

2.2.3 EFFECTS OF THE ACTION
This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.2.3.1 INDIRECT INTERACTIONS

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
Native vegetation (milkweed)	Increase in native vegetation Change in vegetation	Implement spill protection plan	Site preparation for the Project may result in the removal of some milkweed	***No individuals will be affected***

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
	Change in herbicides Decrease in vegetation	Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures	within the Project Site.	The post-construction landscaping plan for the Project includes milkweed and other native flowering plants, which would provide habitat for monarch butterfly.

2.2.3.2 DIRECT INTERACTIONS

No direct interactions leading to effects on species are expected to occur from the proposed project.

2.2.4 CUMULATIVE EFFECTS

The Project is part of a larger planned 7.5-mile shared-use trail (Fjord Trail) between Beacon and Cold Spring, New York, which is being evaluated separately in a Generic Environmental Impact Statement. The Fjord Trail would be partially within the HHSPP and would connect to other parks and heavily used trails along its length. The Fjord Trail construction would include some vegetation removal but as with the Project, habitat conditions along the Fjord Trail location are not optimal for milkweed and monarch butterfly are not expected to occur in significant numbers. Periodic tree trimming and other maintenance is also conducted along NYS Route 9D and the MNR tracks, where milkweed has the potential to grow along the edge of the wooded areas and could provide limited habitat for monarch butterfly.

2.2.5 DISCUSSION AND CONCLUSION

DETERMINATION: NLAA

COMPENSATION MEASURES
The Project would result in the removal of existing vegetation and trees within the Project site and replanting of disturbed areas with native trees, shrubs, and perennial species. Clearing of trees and most vegetation would occur between November and March to correspond with the hibernation period for bats, and would also limit the potential impacts to any milkweed that may grow in the area between spring and fall. Monarch butterflies migrate south in the fall and spend the winter months in Mexico before returning to habitats in the Northeast U.S. in the spring. The loss of potential habitat for milkweed would not result in significant adverse impacts to monarch butterfly, as similar habitat that could support milkweed is available in the vicinity and across the river, including commercial and residential developments, farms, and transportation rights-of-way. Milkweed would also be planted as part of the post-construction landscaping plan for the Project Site.

2.3 NORTHERN LONG-EARED BAT

2.3.1 STATUS OF THE SPECIES
This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.3.1.1 LEGAL STATUS
The Northern Long-eared Bat is federally listed as 'Threatened' and additional information regarding its legal status can be found on the ECOS species profile.

2.3.1.2 RECOVERY PLANS
Available recovery plans for the Northern Long-eared Bat can be found on the ECOS species profile.

2.3.1.3 LIFE HISTORY INFORMATION

The northern long-eared bat is a medium-sized bat about 3 to 3.7 inches in length but with a wingspan of 9 to 10 inches. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, Myotis, which are actually bats noted for their small ears (Myotis means mouse-eared). The northern long-eared bat is found across much of the eastern and north central United States and all Canadian provinces from the Atlantic coast west to the southern Northwest Territories and eastern British Columbia. The species range includes 37 states. White-nose syndrome, a fungal disease known to affect bats, is currently the predominant threat to this bat, especially throughout the Northeast where the species has declined by up to 99 percent from pre-white-nose syndrome levels at many hibernation sites. Although the disease has not yet spread throughout the northern long-eared bats entire range (white-nose syndrome is currently found in at least 25 of 37 states where the northern long-eared bat occurs), it continues to spread. Experts expect that where it spreads, it will have the same impact as seen in the Northeast.

IDENTIFIED RESOURCE NEEDS

Hibernacula

Humidity: high, noise: low, with minimal distrubance, temperature: 0-9 degrees celsius, time of year: august through april, type: caves, mines, sewers, and spillways

Insects

Type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae

Open water

Type: streams, rivers, ponds, wetlands, lakes, road ruts

Travel corridors

Location: between forest patches and type: riparian corridors, wooded paths, hedgerows, fence rows

Trees

Size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure

2.3.1.4 CONSERVATION NEEDS

Conservation needs for northern long-eared bat are included in the Species Status Assessment Report at https://ecos.fws.gov/ServCat/DownloadFile/225001 (https://ecos.fws.gov/ServCat/DownloadFile/225001)

2.3.2 ENVIRONMENTAL BASELINE

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.3.2.1 SPECIES PRESENCE AND USE

Northern long-eared bat has the potential to occur in the Project area. NYNHP has records of hibernacula and maternity colonies across the Hudson River and to the east of the Project Site, but all of these occurrences are more than five miles away. While northern long-eared bats have not been documented anywhere within HHSPP, they have not specifically been surveyed for in the Project area and there is potential habitat within the wooded areas near Breakneck Ridge that could be used for foraging or roosting. The occurrence of northern long-eared bats in the vicinity of the Project Site is expected to be unlikely, particularly considering the abundance of preferred forest-interior habitat available in the eastern portions of HHSPP.

2.3.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

Northern long-eared bats prefer mature, closed-canopy, deciduous or mixed forest habitat within heavily forested landscapes. The species is sensitive to fragmentation and requires interior forest for both foraging and breeding. While they may occur in HHSPP where forest interior habitat is available, they are not expected to occur at the Project Site, which comprises edge habitat along a previously disturbed transportation corridor. Northern long-eared bat only has the potential to occur at the Project Site on rare occasions for roosting as they move to or from their preferred interior forest habitat. Trees sufficient for roosting would include those with cracks or crevices, shingled bark, or other features where bats could seek shelter, and trees meeting this description do occur at the Project Site. While minimal roosting habitat may be available onsite, the Project Site is along transportation rights-of-way and does not support a significant tract of wooded area nor does it connect larger forested areas that would be able to support a greater population of bats.

2.3.2.3 HABITAT CONDITION (GENERAL)

INSECTS (TYPE: LEPIDOPTERA (MOTHS AND BUTTERFLIES), COLEOPTERA (BEETLES), TRICHOPTERA (CADDISFLIES), DIPTERA (FLIES), SPIDERS, LEPIDOPTEROUS LARVAE)
Flying insects are present throughout the Project Site. Removal of vegetation during site preparation would directly reduce the amount of available habitat for flying insects within the Project Site, but they would be able to relocate to undisturbed areas just outside the work areas. After construction, native vegetation would be planted throughout the Project Site and would provide additional habitat for flying insects, including pollinators.

OPEN WATER (TYPE: STREAMS, RIVERS, PONDS, WETLANDS, LAKES, ROAD RUTS)
The Project would take place along the Hudson River and freshwater wetlands are present between the MNR tracks and NYS Route 9D where a portion of the trail would be constructed.

TREES (SIZE: > OR EQUAL TO 3 INCH DBH, SPATIAL ARRANGEMENT: WITHIN 1000 FEET OF FOREST, STRUCTURE: CRACKS, CREVICES, CAVITIES, EXFOLIATING BARK, TIME OF YEAR: APRIL THROUGH AUGUST, TYPE: DEAD, NEARLY DEAD, LIVING TREE WITH DEAD PARTS, AND LIVING WITH APPROPRIATE STRUCTURE)
Trees that would be removed for the Project are between the MNR tracks and NYS Route 9D and along NYS Route 9D where utility relocation would take place. There is a significant amount of interior forest habitat within Hudson Highlands State Park Preserve east of NYS Route 9D that would be unaffected by the Project. Some trees that would be removed are greater than 5 inches DBH and/or have loose bark, cracks, or crevices. Dead or partially dead trees would also be removed.

2.3.2.4 INFLUENCES

General activities or influences that have affected the northern long-eared bat population are described in the Species Status Assessment Report at: https://ecos.fws.gov/ServCat/DownloadFile/225001 (https://ecos.fws.gov/ServCat/DownloadFile/225001)

The Project would be developed on previously disturbed lands associated with the NYCDEP Hudson River Drainage Chamber, MNR right-of-way, NYS Route 9D, dirt parking areas, MNR access roads, the Breakneck Ridge MNR station, and the heavily trafficked Breakneck Ridge Trail. There is periodic tree maintenance along the tracks and where trees overhang the existing utility lines along NYS Route 9D. The Project would be established on informal/social paths that are currently used by visitors. Existing vegetation onsite is limited to areas along the parking areas and walking trails including scrubby upland woody vegetation, a dense understory of scrub-shrub vegetation, and a series of trees and snags along the rights-of-way. Additionally, there is a vast tract of forest interior habitat in the vicinity that would provide more suitable habitat for northern long-eared bats compared to the limited and previously disturbed areas within the Project Site.

2.3.2.5 ADDITIONAL BASELINE INFORMATION

Known hibernacula for northern long-eared bat do not occur within 5 miles of the Project Site.

2.3.3 EFFECTS OF THE ACTION

This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.3.3.1 INDIRECT INTERACTIONS

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
Hibernacula (humidity: high, noise: low, with minimal distrubance, temperature: 0-9 degrees celsius, time of year: august through april, type: caves, mines, sewers, and spillways)			***This resource is not present in the action area*** There are no known hibernacula for northern long-eared bat within 5 miles of the Project Site based on correspondence with OPRHP.	***There will be no impacts to this resource, so no individuals will be affected.***

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
Insects (type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae)	Increase in native vegetation Increase in impervious surfaces Increase in soil disturbance Change in vegetation Decrease in vegetation	Install surface runoff structures Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict the use of herbicides	***There will be no impacts to this resource*** Replanting of native vegetation once construction is complete would provide habitat for flying insects. Vegetated habitat would be improved through the removal of invasive species and their replacement with native species. Temporary impacts during construction would not result in changes to the population of flying insects in the area given the amount of unaffected habitat that would continue to be available just outside the Project Site boundaries.	***There will be no impacts to this resource, so no individuals will be affected.***
Open water (type: streams, rivers, ponds, wetlands, lakes, road ruts)	Increase in impervious surfaces Change in human structures Increase in soil disturbance Change in vegetation	Install surface runoff structures Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict the use of herbicides	Temporary shoreline stabilization along 260 linear feet of the Hudson River and the use of that shoreline for transfer of equipment and materials between the barges and the Project Site would temporarily restrict that portion of the shoreline for use by bats. The riprap would be entirely removed following bridge construction and the shoreline would be restored through replanting of native vegetation. Minor grading would take place within approximately 0.095 acres of freshwater wetland between NYS Route 9D and the MNR tracks. This grading would serve to support	***No individuals will be affected*** The Project would increase the available wetland area by approximately 0.10 acres through the grading efforts and the vegetated swales could provide new sources of surface water after rainfall. The Hudson River shoreline would be returned to pre-construction conditions following bridge construction. The minimal changes to surface waters within suboptimal bat habitat would not result in impacts to northern long-eared bat, especially given the amount of unaffected Hudson

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
			existing drainage patterns and enhance the ecological functions of the wetland, along with the removal of invasive species and planting of native wetland vegetation. Vegetated swales implemented along the trail for stormwater management may also provide new sources of intermittent surface water.	River shoreline and other surface waters in the vicinity.
Travel corridors (location: between forest patches and type: riparian corridors, wooded paths, hedgerows, fence rows)			***This resource is not present in the action area*** The Project Site is on previously disturbed land next to road and rail rights-of-way and does not connect the listed habitats.	***There will be no impacts to this resource, so no individuals will be affected.***
Trees (size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure)	Decrease in trees Decrease in vegetation	Install surface runoff structures Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat	While northern long-eared bats have not been documented anywhere within the Hudson Highlands State Park Preserve and there are no known hibernacula or maternity colonies within 5 miles of the Site, the species have not specifically been surveyed for in this area and there is potential habitat	***No individuals will be affected*** As a precautionary measure, all tree clearing would be limited to the winter hibernation period between November 1 and March 31 to avoid the potential for direct impacts to northern long-eared bats during the active season. Tree removal would not

RESOURCE NEED	STRESSORS	CONSERVATION MEASURES	AMOUNT OF RESOURCE IMPACTED	INDIVIDUALS AFFECTED
		Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict the use of herbicides	within the wooded areas near Breakneck Ridge that could be used for foraging or roosting. Some of the trees that would be removed could serve as roosting habitat given the occurrence of loose bark, cracks, crevices, and dead or partially dead trees and snags.	be expected to result in impacts to individual bats given the limited potential habitat at the Project Site and the extent of more suitable habitat within the state park nearby.

2.3.3.2 DIRECT INTERACTIONS

DIRECT IMPACT	CONSERVATION MEASURES	INDIVIDUALS IMPACTED	IMPACT EXPLANATION
Auditory disturbance	Install surface runoff structures Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict noise and percussives	Yes	If northern long-eared bats are present near the Project Site they may experience auditory disturbance during a typical workday (generally weekdays between 8:00 AM and 5:00 PM) related to construction vehicles and equipment noise. Temporary construction noise would be expected to result in avoidance of the Project Site by wildlife sensitive to elevated noise levels, including bats. Any bats occurring within the limits of construction noise may relocate to forested areas near the Project Site that would be unaffected by construction. These effects would be temporary and would not result in long term impacts to the bat population in the area.
Collisions	Install surface runoff structures Implement spill protection plan	No	The Project Site does not provide significant habitat for northern long-eared bat and the occurrence of construction vehicles and equipment at the Site

DIRECT IMPACT	CONSERVATION MEASURES	INDIVIDUALS IMPACTED	IMPACT EXPLANATION
	Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict noise and percussives Restrict the use of herbicides		during construction would not result in increased risk of collision.
Disturbance	Install surface runoff structures Restrict off-road activities Implement spill protection plan Engineer project to mimic natural grade Design projects to reduce impacts to habitat Clean and maintain equipment Implement erosion control measures Restrict siting of project components Restrict road travel Restrict noise and percussives Sign or mark sensitive habitat Restrict artificial lighting Restrict the use of herbicides	No	Northern long-eared bat has the potential to occur in the Project Site where it contains roosting habitat, generally during the spring/summer months. All tree removal would be conducted during the hibernation period between November and March and would not have the potential to directly disturb foraging or roosting bats.

2.3.4 CUMULATIVE EFFECTS

The Project is part of a larger planned 7.5-mile shared-use trail (Fjord Trail) between Beacon and Cold Spring, New York, which is being evaluated separately in a Generic Environmental Impact Statement. The Fjord Trail would be partially within the HHSPP and would connect to other parks and heavily used trails along its length. Like the Project, the Fjord Trail construction would include some tree removal, all of which would be scheduled to take place during the hibernation period for bats, between November 1 and March 31. Periodic tree trimming/maintenance is also conducted along NYS Route 9D and the MNR tracks.

2.3.5 DISCUSSION AND CONCLUSION

DETERMINATION: NLAA

COMPENSATION MEASURES
All tree clearing would be limited to the winter hibernation period (November 1 to March 31) to avoid the potential for direct impacts to northern long-eared bats during the active season. Artificial lighting would be downward facing with a full cutoff lens or otherwise dark sky compliant. Construction activities would not take place at night.

3 CRITICAL HABITAT EFFECTS ANALYSIS

No critical habitats intersect with the project action area.

4 SUMMARY DISCUSSION AND CONCLUSION

4.1 SUMMARY DISCUSSION

Indiana bat and northern long-eared bat: While Indiana bats and northern long-eared bats are not known to occur within HHSPP, there is potential habitat for both species within the wooded areas near Breakneck Ridge that could be used for foraging or roosting. Most of the tree clearing for the Project would occur directly along NYS Route 9D and the MNR tracks and all tree removal would be done between November 1 and March 31. Tree clearing in general has the potential to reduce bat habitat, but the loss of some trees in the Project Site is not likely to significantly reduce habitat for Indiana bat or northern long-eared bat given the vast tract of preferred forest interior habitat that is present nearby. Additionally, the Project Site is already heavily trafficked by vehicles, visitors, and trains, and is not likely to provide optimal habitat for Indiana bat or northern long-eared bat. Overall, the Project has the potential to result in temporary and minor impacts on Indiana bat and northern long-eared bat during construction and may remove trees that would be suitable for roosting during the active season, but these effects are not expected to significantly impact the bat population.

Monarch butterfly: Monarch butterflies require milkweed and are primarily found in open meadows and fields with wildflowers, coastal beaches with dunes, and man-made butterfly gardens. While these habitats do not exist within the Project Site, wildflowers and milkweed that could provide habitat for monarch butterflies may be present. Butterflies may avoid portions of the Project Site during active construction, but post-construction landscaping of milkweed and native coastal plants has the potential to attract them to the area when the Project is complete. Ultimately, the Project has the potential to result in temporary and minor impacts on potential monarch butterfly habitat if milkweed occurs in the Project Site.

4.2 CONCLUSION

The Project may affect but is not likely to adversely affect Indiana bat.

The Project may affect but is not likely to adversely affect northern long-eared bat.

The Project may affect but is not likely to adversely affect monarch butterfly.

Attachment 9

Breakneck Connector and Bridge Project

SAAF and SHPO Correspondence

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

STRUCTURAL ARCHAEOLOGICAL ASSESSMENT FORM (SAAF)
Supplement to the Joint Application Form

PART 1 – APPLICANT COMPLETES

APPLICANT INFORMATION

1. Applicant Name: Hudson Highlands Fjord Trail Inc., c.o. Amy Kacala

2. Applicant Address: 85 Civic Center Plaza, Suite 300
Poughkeepsie, NY 12601

PROJECT INFORMATION

3. Project/Facility Name: Breakneck Connector and Bridge Project

4. Project/Facility Location: 0.58-mile linear trail along Hudson River between NYS Route 9D and Metro North Railroad tracks from Breakneck Ridge Trailhead south to Fishkill (Metro North station at BNR)

5. Is the proposed project adjacent to, or does it contain a building or structure listed in the State or National Register of Historic Places? Yes No

6. Are there any buildings or structures 50 years old or older adjacent to or within the proposed project area? Yes No

If the answer to question 5 and /or 6 is yes, provide the following information for each building and structure (use attachments if necessary):

a. Name of structure: NYC Department of Environmental Protection Hudson River Drainage Chamber

b. Location: Near Breakneck Ridge Trailhead between Hudson River shoreline and Metro-North railroad tracks

c. Type of structure (ex. house, outbuilding, barn, bridge, dam, ruins): Building

d. Approximate age or date of construction: 1917

7. Might the proposed project have any impact (physical/visual) upon any buildings or structures listed in the State or National Register of Historic Places or 50 years old or older? Yes No

If yes, describe briefly (use attachments if necessary):

See Attached OPRHP SHPO correspondence for Sect.14.09/Sect. 106. No concerns regarding the potential impacts of the proposed Breakneck Connector segment on archaeological and/or historic architectural resources listed in or eligible for the New York State and National Registers of Historic Places.

APPLICANT SECTION CONTINUES ON REVERSE SIDE

8. Provide photographs of every building and structure that may be impacted by the project as described in number 7, on the opposite side of this page. The following standards are recommended:

- Minimum of 2 photographs
- Photographs must be 3.5" x 5" in size or larger
- Photos must be clear and focused
- Digital photographs must be printed on photo paper and be produced at a printer setting of a minimum of 600 dpi
- Clearly label photos so it is obvious what is being illustrated; key photos to map or plan, if possible
- Photo 1: show both the entire front and side of the structure in a single shot from as close to the building as possible. Be sure the structure is not partially or fully blocked by trees or other obstructions
- Photo 2: show relationship of building or structure to roadway or surroundings

9. Has the land within the proposed project area been previously disturbed or altered (excavated, landscaped, filled, utilities installed)? Yes No

If yes, describe briefly, including depth of disturbance (use attachments if necessary):

Previously disturbed land along roadways, rail right-of-way, and heavily trafficked trails. Project site currently includes two trailheads, MNR Breakneck Ridge station, and gravel parking area providing access to Hudson Highlands State Park Preserve, and is north of DEP Hudson River Drainage Chamber

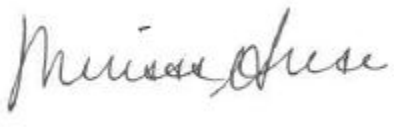
10. Approximate percentage of proposed project area with slopes:

- 0-10% 85 %
- 10-15% ____%
- 15% or greater 15 ____%

11. Approximate percentage of proposed project site with the following drainage characteristics:

- Well drained 80 ____%
- Moderately well drained 10 ____%
- Poorly drained 10 ____%

Prepared By (Print or type name): Melissa Grese, AKRF Inc.

Signature:  Date: 2/17/2023

RESET PART 1

PART 2 – DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) COMPLETES

APPLICANT/PROJECT INFORMATION

1.Applicant Name:

2. Project/Facility Name:

3. DEC Number:

BUILDINGS AND STRUCTURES

4. Might the proposed project have any impact (physical/visual) upon any buildings or structures listed in the State or National Register of Historic Places or 50 years old or older? Yes No

If yes, DEC must consult with the Office of Parks, Recreation and Historic Preservation (OPRHP). DEC must request a determination of eligibility for the State Register of Historic Places and/or comments regarding project impact. Include information supplied by the applicant in response to questions 5, 6, 7 and 8 of **Part 1** of this form.

ARCHAEOLOGICAL SITES

5. Does the proposed project area coincide with a circle, square or stippled area on OPRHP's Statewide Archaeological Inventory Map? Yes No

6. Is the proposed project area outside of a circle or square, but one for which information has been provided (ex: documented reports of known sites) that suggests the area is archaeologically sensitive? Yes No

If yes, what is the nature and source of information?

7. Is the proposed project area apparently undisturbed? Yes No

8. Will the proposed action include a physical disturbance of the project area? Yes No

9. Is the slope in the area characteristically less than 15% (unless on limestone/flint escarpments)? Yes No

DEC SECTION CONTINUES ON REVERSE SIDE

10. Is the proposed project area characteristically moderately well or well drained? Yes No

If the answers to 5, 7-10 are yes, an archeological survey should be performed by the applicant. Provide the applicant with a copy of or the link to the *State Historic Preservation Office Phase 1 Archaeological Report Format Requirements (08/05)*.

If the answer to 5 is no, but answers to 6-10 are yes, DEC must consult with OPRHP before requiring that the applicant perform an archaeological survey.

RESULTS OF EVALUATION

☐ SHPA-1 No buildings, structures or archaeological sites identified at the project location.

☐ SHPA-2 Buildings, structures or archaeological sites identified, but no impacts will occur, no survey required. No further cultural resources review required.

☐ Consultation by DEC with OPRHP required. ☐ Structures ☐ Archaeology

☐ Archaeological survey required.

Prepared by: Date:

RESET PART 2

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

September 10, 2020

Ms. Erin Drost
ORPHP
Taconic Regional Office
9 Old Post Rd
Staatsburg, NY 12580

Re: OPRHP
Hudson Highlands Fjord Trail EPF/PKS 148913
Town of Fishkill, Dutchess County, NY
14PR04481

Dear Ms. Drost:

Thank you for continuing to consult with the Division for Historic Preservation (DHP) of the Office of Parks, Recreation and Historic Preservation. We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law) and the Intra-Agency Protocol for Application of Section 14.09 (HP-PCD-001). These comments are those of the DHP and relate only to historic/cultural resources.

We are in receipt of the 60% design drawings showing the Breakneck Connector, Bridge and Steward Station Upper Overlook. The DHP continues to have no concerns regarding the potential impacts of the proposed Breakneck Connector segment on archaeological and/or historic architectural resources listed in or eligible for the New York State and National Registers of Historic Places.

If further correspondence is required regarding this project, please refer to the DHP Project Review (PR) number noted above. If you have any questions, please do not hesitate to contact me at andrew.farry@parks.ny.gov.

Sincerely,

Andrew Farry, Ph.D.
Scientist/Archaeology

Cc: Dan Seymour, Parks
Nancy Stoner, Parks

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

April 07, 2022

Nancy Stoner
Environmental Analyst
NYS Office of Parks, Recreation & Historic Preservation
Division of Environmental Stewardship and Planning
625 Broadway, 2nd Floor
Albany, NY 12238

Re: USACE
Hudson Highlands SPP/Breakneck Connector and Bridge Project
Town of Fishkill, Dutchess County, NY
22PR01700

Dear Nancy Stoner:

Thank you for consulting with the New York State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based on the submitted information, it is the SHPO's opinion that this project will have No Effect upon cultural resources in or eligible for inclusion in the National Registers of Historic Places. Please note this determination applies to the Breakneck connector and bridge component of the larger Hudson Highlands State Park fjord trail project (14PR04481).

If further correspondence is required regarding this project, please refer to the DHP Project Review (PR) number noted above. If you have any questions, please do not hesitate to contact me at 518.268.2185 or andrew.farry@parks.ny.gov.

Sincerely,

Andrew Farry, Ph.D.
Scientist/Archaeology

Attachment 10

Breakneck Connector and Bridge Project

Federal Consistency Assessment Form

NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Federal Consistency Assessment Form

An applicant, seeking a permit, license, waiver, certification or similar type of approval from a federal agency which is subject to the New York State Coastal Management Program (CMP), shall complete this assessment form for any proposed activity that will occur within and/or directly affect the State's Coastal Area. This form is intended to assist an applicant in certifying that the proposed activity is consistent with New York State's CMP as required by U.S. Department of Commerce regulations (15 CFR 930.57). It should be completed at the time when the federal application is prepared. The Department of State will use the completed form and accompanying information in its review of the applicant's certification of consistency.

A. **APPLICANT** (please print)

1. Name: Hudson Highlands Fjord Trail, Inc., c.o. Amy Kacala

2. Address: 85 Civic Center Plaza, Poughkeepsie, NY 12601

3. Telephone: Area Code ( ) 845-473-4440

B. **PROPOSED ACTIVITY**

1. Brief description of activity:
The Breakneck Connector and Bridge Project (Project) consists of the following elements: a 0.58-mile publicly accessible shared-use trail that includes a new bridge over the MNR tracks, parking areas along NYS Route 9D, trail connections to the Breakneck Ridge Trail and Wilkinson Memorial Trail, the addition of two comfort station buildings, removal of the existing MNR Breakneck Ridge wooden platforms and replacement with new platforms, relocation of the power lines from the western side of NYS Route 9D to the eastern side, and upgrades to the Upper Overlook area, including installation of a small steward station along the Breakneck Ridge Trail and a scramble construction area.

2. Purpose of activity
The Project would be developed on previously disturbed lands (i.e., New York City Department of Environmental Protection's (NYCDEP) Drainage Chamber land, MNR rail line right-of-way, New York State Department of Transportation (NYSDOT) Route 9D, dirt parking areas, MNR access roads, the MNR Breakneck Ridge station and a very heavily trafficked Breakneck Ridge Trail) to formalize trails that are already in place and currently in use, improve safety where there are dangerous traffic, parking, pedestrian and bicycle conditions, and to enhance access for all persons to this area by building trails and parking that meet generally-accepted accessibility standards.

3. Location of activity

Putnam and Dutchess	Towns of Fishkill and Philipstown	A half mile long project site starting at Breakneck Ridge and heading north
County	City, Town, or Village	Street or Site Description

4. Type of federal permit/license required: Nationwide Permit 14

5. Federal application number, if known:

6. If a state permit/license was issued or is required for the proposed activity, identify the state agency and provide the application or permit number, if known:

NYSDEC SPDES General Permit GP-0-20-001 for Stormwater Discharges from Construction Activity;
NYSDEC 401 Water Quality Certification, Article 15, Article 24

C. **COASTAL ASSESSMENT** Check either "YES" or "NO" for each of these questions. The numbers following each question refer to the policies described in the CMP document (see footnote on page 2) which may be affected by the proposed activity.

1. Will the proposed activity result in any of the following:	YES	NO
a. Large physical change to a site within the coastal area which will require the preparation of an environmental impact statement? (11, 22, 25, 32, 37, 38, 41, 43)	☐	☒
b. Physical alteration of more than two acres of land along the shoreline, land under water or coastal waters? (2, 11, 12, 20, 28, 35, 44)	☐	☒
c. Revitalization/redevelopment of a deteriorated or underutilized waterfront site? (1)	☐	☒
d. Reduction of existing or potential public access to or along coastal waters? (19, 20)	☐	☒
e. Adverse effect upon the commercial or recreational use of coastal fish resources? (9, 10)	☐	☒
f. Siting of a facility essential to the exploration, development and production of energy resources in coastal waters or on the Outer Continental Shelf? (29)	☐	☒
g. Siting of a facility essential to the generation or transmission of energy? (27)	☐	☒
h. Mining, excavation, or dredging activities, or the placement of dredged or fill material in coastal waters? (15, 35)	☒	☐
i. Discharge of toxics, hazardous substances or other pollutants into coastal waters? (8, 15, 35)	☐	☒
j. Draining of stormwater runoff or sewer overflows into coastal waters? (33)	☒	☐
k. Transport, storage, treatment, or disposal of solid wastes or hazardous materials? (36, 39)	☐	☒
l. Adverse effect upon land or water uses within the State's small harbors? (4)	☐	☒

2. Will the proposed activity affect, or be located in, on, or adjacent to any of the following:	YES	NO
a. State designated freshwater or tidal wetland? (44)	☐	☒
b. Federally designated flood and/or state designated erosion hazard area? (11, 12, 17)	☒	☐
c. State designated significant fish and/or wildlife habitat? (7)	☒	☐
d. State designated significant scenic resource or area? (24)	☒	☐
e. State designated important agricultural lands? (26)	☐	☒
f. Beach, dune or barrier island? (12)	☒	☐
g. Major ports of Albany, Buffalo, Ogdensburg, Oswego or New York? (3)	☐	☒
h. State, county, or local park? (19, 20)	☒	☐
i. Historic resource listed on the National or State Register of Historic Places? (23)	☒	☐

3. Will the proposed activity require any of the following:	YES	NO

a. Waterfront site? (2, 21, 22) ..... ☒ ☐

b. Provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (5) ..... ☐ ☒

c. Construction or reconstruction of a flood or erosion control structure? (13, 14, 16) ..... ☐ ☒

d. State water quality permit or certification? (30, 38, 40) ..... ☒ ☐

e. State air quality permit or certification? (41, 43) ..... ☐ ☒

4. Will the proposed activity occur within and/or affect an area covered by a State approved local waterfront revitalization program? (see policies in local program document) ..... ☐ ☒

D. **ADDITIONAL STEPS**

1. If all of the questions in Section C are answered "NO", then the applicant or agency shall complete Section E and submit the documentation required by Section F.

2. If any of the questions in Section C are answered "YES", then the applicant or agent is advised to consult the CMP, or where appropriate, the local waterfront revitalization program document*. The proposed activity must be analyzed in more detail with respect to the applicable state or local coastal policies. On a separate page(s), the applicant or agent shall: (a) identify, by their policy numbers, which coastal policies are affected by the activity, (b) briefly assess the effects of the activity upon the policy; and, (c) state how the activity is consistent with each policy. Following the completion of this written assessment, the applicant or agency shall complete Section E and submit the documentation required by Section F.

E. **CERTIFICATION**

The applicant or agent must certify that the proposed activity is consistent with the State's CMP or the approved local waterfront revitalization program, as appropriate. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program, or with the applicable approved local waterfront revitalization program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Hudson Highlands Fjord Trail, Inc., c.o. Amy Kacala

Address: 85 Civic Center Plaza, Poughkeepsie, NY 12601

Telephone: Area Code ( ) 845-473-4440

Applicant/Agent's Signature: Amy Kacala (Apr 4, 2023 11:07 EDT) Date: Apr 4, 2023

F. **SUBMISSION REQUIREMENTS**

1. The applicant or agent shall submit the following documents to the **New York State Department of State, Office of Coastal, Local Government and Community Sustainability, Attn: Consistency Review Unit, 1 Commerce Plaza, 99 Washington Avenue – Suite 1010, Albany, New York 12231**.

    a. Copy of original signed form.
    b. Copy of the completed federal agency application.
    c. Other available information which would support the certification of consistency.

2. The applicant or agent shall also submit a copy of this completed form along with his/her application to the federal agency.

3. If there are any questions regarding the submission of this form, contact the Department of State at (518) 474-6000.

*These state and local documents are available for inspection at the offices of many federal agencies, Department of Environmental Conservation and Department of State regional offices, and the appropriate regional and county planning agencies. Local program documents are also available for inspection at the offices of the appropriate local government.

Additional Information

As determined by the Federal Consistency Assessment Form, the Proposed Action requires detailed assessment for several New York State Coastal Management Program policies, including policies 2, 7, 11, 12, 15, 17, 19, 20, 21, 22, 23, 24, 30, 33, 35, 38, and 40. The consistency assessment is provided below for all questions that were answered "YES" in the CAF.

Policy 2: Facilitate the siting of water-dependent uses and facilities on or adjacent to coastal waters.

The Project would provide visual access and wildlife viewing opportunities along the Hudson River, the latter of which is a New York State Department of State (NYSDOS)-identified water-dependent use. In addition, and also considered a water-dependent use by NYSDOS, the Project would include support facilities necessary for the successful functioning of this permitted water-dependent use. These support facilities include parking areas, restrooms, and a steward station. Consistent with Guideline 4, the proposed recreational water-dependent uses are located such that they would enhance tourism in the surrounding communities. Therefore, the Project is consistent with this policy.

Policy 7: Significant coastal fish and wildlife habitats will be protected, preserved, and where practical, restored so as to maintain their viability as habitats.

The southern-most portion of the Project would be located adjacent to the Hudson River, which in this location is mapped as the Hudson Highlands Significant Coastal Fish and Wildlife Habitat (SCFWH). The Hudson Highlands SCFWH designation is due largely to a significant concentration of wintering bald eagles, presence of spawning area for striped bass, presence of nursery and summering areas for Atlantic sturgeon, and the presence of migratory routes for both Atlantic and shortnose sturgeon. The closest known bald eagle nests to the Project Site are on the opposite (western) side of the Hudson River. The Project would not be expected to impact bald eagle nesting habitat, as there are no known nests within the Project Area.

Construction of the bridge will require approximately 260 linear feet of shoreline stabilization starting just upstream from the NYCDEP water tunnel. This will facilitate crane and other equipment access from the barge to the construction site and will support the upland work occurring close to the shoreline. The shoreline stabilization will result in temporary placement of about 1,100 square feet of armor stone comprising 126 cubic yards below SHW, of which 106 cubic yards will be below MHW that will allow equipment and materials to be moved from barges to the work site. Following construction of the bridge, the temporary stabilization materials (geotextile, stone) will be removed from the landing areas, the soil will be stabilized at pre-construction grade, and native vegetation will be replanted. Construction of the southbound MNR platform will also be supported by barges but will not require any alterations to the shoreline.

The spud piles that would be used to secure construction barges adjacent to the shoreline would be hollow steel pipe piles or spud piles, which do not constitute fill within Waters of the United States under Section 404 of the Clean Water Act. Piles securing the spud barges would be installed in the river bottom by self-weight. The resulting increase in suspended sediment due to pile installation would be minimal and would be localized. Sediments that become resuspended when the spuds are demobilized would dissipate quickly with the tidal currents of the river and would not result in long term adverse impacts to water quality or aquatic biota. Barges and any other smaller vessels would maintain a 2-foot separation from the mudline during all tidal cycles to minimize the potential for sediment resuspension. Additionally, the shoreline stabilization activities would be enclosed in turbidity curtains to minimize the potential effects of sediment resuspension. As such, any disturbance of sediments would be minimized and temporary and would not adversely affect water quality and aquatic biota of the Hudson River. The river has substantial width at this location to allow for fish, including sturgeon and striped bass, and other species to avoid the area of the barges.

Stormwater management would be incorporated into the Project design with a series of swales for water quality treatment prior to the stormwater runoff being discharged to the Hudson River, in accordance with NYSDEC standards. The drainage design for the Project intends to largely maintain existing flow

patterns and proposes to keep existing culverts crossing under NYS Route 9D and the MNR tracks. The proposed vegetated swales would reduce runoff and promote infiltration through soil improvement and are expected to reduce stormwater impacts and minimize flood impacts to MNR properties and operations, and to NYS Route 9D. The swales would treat water prior to discharge into the Hudson River. With these measures in place, potential impacts related to stormwater runoff and erosion during construction and operation of the Project would be minimized.

Therefore, the Project is consistent with this policy.

Policy 11: Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.

On-grade segments may be planted with stabilizing vegetation and supported by boulder edges along the river side to minimize potential damage to the trail resulting from flood waters or associated shoreline erosion. The lower elevation southern-most portion of the Project, which is located adjacent to the Hudson River on the west side of the MNR tracks, is designed to be resilient to flooding through material selection and design practices that allow it to be submerged with little to no damage and easily repaired if necessary. Landscape materials, including planting and trail surfacing, are designed to be resilient under 100-year flood conditions. The design flood elevation for the project site is +8 feet NAVD88, which is also the approximate base flood elevation (BFE) for the 1% annual chance floodplain. With the exception of the comfort station (first floor at +9.25 feet NAVD88 with dry flood-proofed basement), site features are resilient or are above +8 feet NAVD88. The lowest elevation of the bottom of bridge deck is +15.75 feet NAVD88, which is about 7.75 feet above the BFE.

The existing stormwater runoff storage volume between NYS Route 9D and the MNR tracks is approximately 38,400 cubic feet (CF). The Project would increase the runoff storage to approximately 126,000 CF, thereby increasing the storage capacity for floodwaters. Expected flow to the MNR culverts from storms would be reduced as a result of the Project. Therefore, the likelihood of flooding from runoff in the MNR right-of-way from equivalent storms would decrease with the Project. The Project is not expected to exacerbate existing flooding or erosion either along the proposed trail or elsewhere. Therefore, the Project is consistent with this policy.

Policy 12: Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands and bluffs.

There are no dunes, barrier islands, or beaches within the vicinity of the Project. Rocky cliffs (i.e., bluffs) that protrude out into the Hudson River are located at Breakneck Ridge (Upper Overlook) at the southern edge of the Project's limit of disturbance. The proposed Steward Station would be constructed in this area; this building may include a green roof, which would minimize runoff. No blasting is anticipated and no changes to geological features are expected at the Upper Overlook. The trail in the lower elevation portion of the southern section would be constructed waterward of the bluffs and would protect the bluffs through inclusion of a boulder edge and stabilizing vegetation to minimize damage from flooding and erosion. Therefore, the Project is consistent with this policy.

Policy 15: Mining, excavation or dredging in coastal waters shall not significantly interfere with the natural coastal processes which supply beach materials to land adjacent to such waters and shall be undertaken in a manner which will not cause an increase in erosion of such land.

The Project would not involve any mining, excavation, or dredging. Therefore, this policy is not applicable.

Policy 17: Non-structural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible.

The lower elevation southern-most portion of the Project, which is located adjacent to the Hudson River on the west side of the MNR tracks, is designed to be resilient to flooding through material selection and design practices that allow it to be submerged with little to no damage and easily repaired if

necessary. Landscape materials, including planting and trail surfacing, are designed to be resilient under 100-year flood conditions. The Project would include a series of vegetated swales for control and treatment of stormwater prior to discharge to the Hudson River, in accordance with NYSDEC standards. The drainage design for the Project intends to largely maintain existing flow patterns and proposes to keep existing culverts crossing under NYS Route 9D and the MNR tracks. The proposed vegetated swales would reduce runoff and promote infiltration through soil improvement and are expected to reduce stormwater impacts and minimize flood impacts to MNR properties and operations, and to NYS Route 9D. In addition, the Steward Station may include a green roof, which would minimize runoff. Therefore, the Project is consistent with this policy.

Policy 19: Protect, maintain, and increase the level and types of access to public water related recreation resources and facilities.

The Project would protect, maintain, and increase the level of access to public water related recreation resources. The Project would provide a safe, formal public access by formalizing trails that are already in place and currently in use within the vicinity of the Hudson River shoreline, and would enhance access for all persons to this area by building trails and parking that meet generally-accepted accessibility standards. The trail route between the parking areas, the trailheads, and the MNR platforms would be ADA Accessible. Therefore, the Project is consistent with this policy.

Policy 20: Access to the publicly owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly owned shall be provided and it shall be provided in a manner compatible with adjoining uses.

The Project would provide public access to the foreshore and to lands immediately adjacent to the foreshore or water's edge through the creation of a publicly-accessible recreational trail and bridge connecting to the Hudson River. Provision of this public access would be compatible with the adjoining recreational uses, which include HHSPP and its trail system to which the Project would provide connections. A large portion of the Project site is held by MNR and public access is largely restricted due to the proximity to the MNR tracks. The Project would amplify physical barriers to the MNR tracks and make for safe pedestrian and bicycle use of the trail and bridge corridor within these public lands. In addition, upon completion of the Project MNR intends to grant the applicable permissions for public use of the Breakneck Connector and Bridge. Thus, the Project would provide public access where there currently is none and where such access would not be allowed without the Project. Therefore, the Project is consistent with this policy.

Policy 21: Water dependent and water enhanced recreation will be encouraged and facilitated, and will be given priority over non-water-related uses along the coast.

The Project itself serves as a water-enhanced recreation asset. A large portion of the Project site is held by MNR and public access is largely restricted due to the proximity to the MNR tracks (see response for Policy 20 above). The Project would provide public access where there is none and where such access would not be allowed without the project. Therefore, the Project is consistent with this policy.

Policy 22: Development when located adjacent to the shore will provide for water-related recreation whenever such use is compatible with reasonably anticipated demand for such activities, and is compatible with the primary purpose of the development.

The guidance for Policy 22 states that parks are a type of development that can provide water-related recreation as a multiple use. As outlined in the guidance for Policy 21, water-related recreation includes certain activities which are enhanced by a coastal location and increase the general public's access to the coast such as pedestrian and bicycle trails, scenic overlooks and passive recreation areas that take advantage of coastal scenery, all of which are incorporated into the Project. Furthermore, the Project is fully compatible with reasonably anticipated demand for such activities, given the current use of portions of the site for such recreational uses. Therefore, the Project is consistent with this policy.

Policy 23: Protect, enhance and restore structures, districts, areas or sites that are of significance in the history, architecture, archaeology or culture of the State, its communities, or the Nation.

The NYCDEP Hudson River Drainage Chamber (HRDC), located near Breakneck Ridge, is eligible to be listed on the National Register of Historic Places. The NYCDEP has been involved in the Project design and layout as it occurs adjacent to the NYCDEP HRDC. There are no direct impacts to the structure itself. The Applicant has a Section 14.09 letter from the OPRHP Division for Historic Preservation (DHP)/State Historic Preservation Office (SHPO) indicating DHP has "no concerns regarding the potential impacts of the proposed Breakneck Connector segment on archaeological and/or historic architectural resources listed in or eligible for the New York State and National Registers of Historic Places" (Farry, 2/10/2020). The Applicant also has a Section 106 letter from DHP indicating "it is the SHPO's opinion that this Project will have No Effect upon cultural resources in or eligible for inclusion in the National Registers of Historic Places" (Farry, 4/7/2022). Therefore, the Project is consistent with this policy.

Policy 24: Prevent impairment of scenic resources of statewide significance.

The Project is located within the Hudson Highlands Scenic Areas of Statewide Significance (SASS). Construction and operation of the Project is not anticipated to result in a significant adverse visual impact to the Hudson Highlands SASS. The development of a bridge and associated trail segment is in keeping with other, similar, recreational resources in the area. Construction of the Project would grant users greater access to the Hudson River shoreline and other natural features of the area, and provide enhanced connectivity to HHSPP recreational resources, ultimately enhancing the public's enjoyment of those resources, including the SASS. To minimize the visual impact of the Bridge, from very early in the planning process, alternative bridge designs were considered. The ultimate design chosen is the least obvious and intrusive on the existing landscape. The Bridge is designed to be as visually quiet as possible. The abutments would appear to grow out of the existing landscape and land on either side of the MNR tracks. The Bridge, while maintaining necessary clearances for train traffic, would be visually unobtrusive as the elevation of the bridge deck is similar to the existing elevation of NYS Route 9D. In addition, the curvilinear design of the Bridge conforms with the surrounding geological features. Moreover, the materials and colors for the Bridge were intentionally selected to blend into the landscape. Finally, the size and scale of the Project, when compared to the overall expanse of the HHSPP and the surrounding landscape, support a determination that construction and operation of the Project would not interfere with the public's enjoyment of the SASS, and parks or other community assets within its boundaries, and that the Project would in fact enhance the public's enjoyment of them. Therefore, the Project is consistent with this policy.

Policy 30: Municipal, industrial, and commercial discharge of pollutants, including but not limited to, toxic and hazardous substances, into coastal waters will conform to State and National water quality standards.

The Project will not introduce municipal, industrial, or commercial discharge to the area. Therefore, this policy is not applicable.

Policy 33: Best management practices will be used to ensure the control of stormwater runoff and combined sewer overflows draining into coastal waters.

The Project would implement erosion and sediment control measures (e.g., silt fencing, inlet protection, surface stabilization, and dust control) in accordance with the SWPPP prepared for the Project as required by the SPDES General Permit GP-0-20-001 for Stormwater Discharges from Construction Activity and would minimize the potential for discharges of sediment to the Hudson River during upland construction activities. The Project would include a series of vegetated swales for control and treatment of stormwater runoff prior to discharge to the Hudson River, in accordance with NYSDEC standards. The drainage design for the Project intends to largely maintain existing flow patterns and proposes to keep existing culverts crossing under NYS Route 9D and the MNR tracks. The proposed vegetated swales would reduce runoff and promote infiltration through soil improvement and are

expected to reduce stormwater impacts and minimize flood impacts to MNR properties and operations, and to NYS Route 9D. In addition, the Steward Station may include a green roof, which would minimize runoff. Therefore, the Project is consistent with this policy.

Policy 35: Dredging and filling in coastal waters and disposal of dredged material will be undertaken in a manner that meets existing State dredging permit requirements, and protects significant fish and wildlife habitats, scenic resources, natural protective features, important agricultural lands, and wetlands.

The Project would not involve any dredging in coastal waters. Minor grading is proposed within less than one-tenth of an acre of wetlands. Proposed regrading in the wetlands will result in a net-fill of about 59.7 cubic yards. Filling would generally include well-graded soil, imported or from on-site. Proposed filling is less than three feet in depth at specific areas to support grading for drainage. This placement of fill associated with the minor grading in the wetland would require a CWA Section 404 permit from USACE if deemed to be under USACE jurisdiction, and a Section 401 Water Quality Certification and Article 24 Freshwater Wetlands Permit from NYSDEC if deemed to be under NYSDEC jurisdiction. The use of silt barriers or turbidity barriers would be used during shoreline stabilization to minimize the potential for sediment re-suspension during placement of the geotextile and crushed limestone. The Project Site is strongly influenced by the tidal currents of the Hudson River and any temporary increase in suspended sediment and localized turbidity that may result from the installation of shoreline stabilization would dissipate shortly after the completion of the sediment disturbing activity. Therefore, the Project is consistent with this policy.

Policy 38: The quality and quantity of surface water and groundwater supplies, will be conserved and protected, particularly where such waters constitute the primary or sole source of water supply.

Mapping resources indicate there are no Sole-Source, Primary, or Principal Aquifers in or near the Project Site. Regardless, measures would be included to protect the quality of surface and groundwater, such as vegetated swales to provide control of stormwater quality. At the well location, six-inch-inner-diameter steel casing was installed into bedrock to about 40 feet deep, and a 6-inch-diamater well-hole was then drilled into bedrock to about 310-feet deep. A pump test was conducted in the well-hole which proved about 30-gpm of water yield. The comfort stations would use Clivus composting toilets that would not discharge to groundwater. Wastewater would be stored in liquid end tanks that would be pumped out by a service company.

A draft SWPPP for the Project has been developed in accordance with the New York State Stormwater Management Design Manual. The Project would implement erosion and sediment control measures (e.g., silt fencing, inlet protection, surface stabilization, and dust control) in accordance with the SWPPP prepared for the Project as required by the SPDES General Permit GP-0-20-001 for Stormwater Discharges from Construction Activity and would minimize the potential for discharges of sediment to the Hudson River during upland construction activities.

The Project would include a series of vegetated swales for control and treatment of stormwater runoff prior to discharge to the Hudson River, in accordance with NYSDEC standards. The drainage design for the Project intends to largely maintain existing flow patterns and proposes to keep existing culverts crossing under both NYS Route 9D and the MNR tracks. The proposed vegetated swales would reduce runoff and promote infiltration through soil improvement and are expected to reduce stormwater impacts to MNR properties and operations, and to NYS Route 9D. In addition, the Steward Station may include a green roof, which would minimize runoff.

Therefore, the Project is consistent with this policy.

Policy 40: Effluent discharged from major steam electric generating and industrial facilities into coastal waters will not be unduly injurious to fish and wildlife and shall conform to state water quality standards.

The Project does not include steam electric generating or industrial facilities. Therefore, this policy is not applicable.