UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

AUG 19 2014

Mr. Brian Mills
Office of Electricity Delivery and Energy Reliability
U. S. Department of Energy
Washington, DC 20585

RE: NAN-2009-01089-EYA; Essential Fish Habitat (EFH) Assessment for the Champlain Hudson Power Express Transmission Line Project

Dear Mr. Mills:

We have reviewed your revised essential fish habitat (EFH) assessment for the Champlain Hudson Power Express Transmission Line Project, dated June 2014. As described in that document, the proposed project would include the construction, operation and maintenance of an approximately 336-mile long, 1000-megawatt, high voltage electric power transmission cable. The proposed transmission line will run from a converter station near Montreal, Quebec, Canada to New York City. The project includes 196 miles of transmission line buried in the beds of Lake Champlain, and the Hudson, Harlem and East rivers impacting a minimum of 347 acres of waters of the U.S. The project would extend through fifteen New York State counties and has an expected lifespan of 40 years.

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act (FWCA) require Federal agencies to consult with one another on projects such as this. When a project involves EFH, as this project does, 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 this consultation procedure. Included in this consultation process is the preparation of a complete and appropriate EFH assessment to provide necessary information on which to consult. The FWCA provides authority for our involvement in evaluating the impacts to fish and wildlife from proposed water resource development projects. Wildlife and wildlife resources are defined by the Act to include: birds, fish, mammals, and other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent. We offer the following comments and recommendations for your consideration.

Essential Fish Habitat

The project area has been designated as EFH for a number of federally managed species including Atlantic butterfish (*Peprilus triacanthus*), Atlantic sea herring (*Clupea harengus*), bluefish (*Pomatomus saltatri*), black sea bass (*Centropristis striata*), red hake (*Urophycis chuss*), scup (*Stenotomus chrysops*), summer flounder (*Paralichthys dentatus*), winter flounder

(*Pseudopleuronectes americanus),* windowpane flounder (*Scophthalmus aquosus*), clearnose skate (*Raja eglanteria*), little skate (*Leucoraja erinacea*), and winter skate (*Leucoraja ocellata*).

On January 15, 2014, we provided a response to your Draft Environmental Impact Statement and EFH assessment and concluded that the EFH assessment was not complete and that further evaluation of impacts was necessary. We have determined that the revised EFH assessment (June 2014) is adequate for us to resume our EFH consultation on this project. While we acknowledge the efforts made to this point to avoid sensitive resources, including hard bottom, shallow water, submerged aquatic vegetation, and shellfish beds, we have determined that the impacts associated with the installation/construction of the system will adversely affect EFH, living aquatic resources and their habitats.

Winter flounder migrate into shallow water or estuaries and coastal ponds to spawn, and tagging studies show that most return repeatedly to the same spawning grounds (Lobell 1939, Saila 1961, Grove 1982 in Collette and Klein-MacPhee 2002). They typically spawn in the winter and early spring, although the exact timing is temperature dependent and thus varies with latitude (Able and Fahay 1998). Winter flounder have demersal eggs that sink and remain on the bottom until they hatch. After hatching, the larvae are initially planktonic, but following metamorphosis they assume an epibenthic existence. Winter flounder larvae are negatively buoyant (Pereira et al. 1999), and are typically more abundant near the bottom (Able and Fahay 1998). These life stages are less mobile and thus more likely to be impacted by suspended sediments. To minimize impacts to winter flounder early life stages and their EFH, in-water activities should be avoided from January 15 to May 31, in the Lower Hudson and Harlem/East Rivers.

Anadromous fish such as alewife (*Alosa pseudoharengus*), American shad (*Alosa sapidissima*) striped bass (*Morone saxatilis*) and blueback herring (*Alosa aestivalis*) use the project area as a migratory pathway and nursery and forage habitat. Alewife and blueback herring spend most of their adult life at sea, but return to freshwater areas to spawn in the spring. These species are believed to be repeat spawners, generally returning to their natal rivers (Collette and Klein-MacPhee 2002). In the Mid-Atlantic, landings have declined dramatically since the mid-1960s and have remained very low in recent years (ASMFC 2007). Because landing statistics and the number of fish observed on annual spawning runs indicate a drastic decline in alewife and blueback herring populations throughout much of their range since the mid-1960's, they have been designated as Species of Concern by NOAA. "Species of concern" are those species about which NOAA has some concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the Endangered Species Act.

Juvenile river herring are a food source for several federally managed species. Buckel and Conover (1997) in Fahey et al. (1999) reports that diet items of juvenile bluefish include *Alosa* species such as these. Juvenile *Alosa* species have all been identified as prey species for windowpane flounder, summer flounder, scup, little skate and winter skate in Steimle et al. (2000).

The EFH final rule states that the loss of prey may be an adverse effect on EFH and managed species because the presence of prey makes waters and substrate function as feeding habitat and the definition of EFH includes waters and substrate necessary to fish for feeding. Therefore,

actions that reduce the availability of prey species, either through direct harm or capture, or through adverse impacts to the prey species' habitat may also be considered adverse effects on EFH. As a result, activities that adversely affect the spawning success and the quality for the nursery habitat of these anadromous fish can adversely affect the EFH for juvenile bluefish, windowpane, winter flounder, scup, summer flounder and others by reducing the availability of prey items.

As stated in our previous letter, increases in turbidity due to the resuspension of sediments into the water column during construction can degrade water quality, lower dissolved oxygen levels, and potentially release chemical contaminants bound to the fine-grained estuarine/marine sediments. Suspended sediment can also mask pheromones used by migratory fishes such as these to reach their spawning grounds and impede their migration and can smother immobile benthic organisms and demersal newly-settle juvenile fish (Auld and Schubel 1978; Breitburg 1988; Newcombe and MacDonald 1991; Burton 1993; Nelson and Wheeler 1997). While the EFH assessment states that sampling of total suspended sediments will be conducted during pre-installation trials and installation, we feel that it would be beneficial to sample during the debris removal operations as well.

Noise from the construction activities, including blasting, boat operations, and machinery operations, may also result in adverse effects. Effects may include (a) non-life threatening damage to body tissues, (b) physiological effects including changes in stress hormones or hearing capabilities, or (c) changes in behavior (Popper et al. 2004). In order to minimize the adverse effects of suspended sediment and noise on migrating anadromous fish, in-water work should be avoided during the upstream migration to their spawning grounds between March 1 and June 30 of each year in the Hudson River and March 1 to May 15 in the East and Harlem Rivers.

To the extent practical, the aquatic portions of the cable installation are being installed by the use of a jet plow. The jet plow will create a trench that is approximately 2' wide and 4-8' deep and the cable will sink to the bottom and sediment allowed to naturally back fill the trench. Use of a back fill plow is recommended, in order to restore the bottom contours as quickly as possible to allow the recolonization by benthic species. Allowing the trench to naturally fill in can take, according to the EFH assessment anywhere from six months to five years. Backfilling and restoring the pre-existing contours eliminates this waiting period and the habitat can begin to recover more quickly. Remedial action would be required if the compliance bathymetry monitoring shows, at the three year survey, the contours are not similar to those on the pre-installation survey.

The other portions of the cable installation including the entrance and exit holes, will be installed via horizontal directional drilling (HDD), and will require the installation of a cofferdam to stabilize the dredged hole. All material dredged from the three cofferdams, will be disposed of at an upland, permitted disposal location. At the completion of the work, the sheet pile will be cut off at the mudline, the area backfilled with clean sand, and should be topped with 2' of native clean material. The area will be restored and re-vegetated, as necessary, to pre-construction grades and conditions. Appropriate measures should be in place to ensure no drilling fluids are released into the waterway.

We agree with and support the decision to only conduct in river work south of Haverstraw Bay at high or flood tides in order to avoid impacts of re-suspended sediments , as Haverstraw Bay provides critical habitat for most estuarine-dependent fisheries originating from the Hudson River.

Mitigating for the Loss of Habitat

In accordance with the 2008 Federal Register, Part 332 Compensatory Mitigation for Losses to Aquatic Habitat, the project must specifically identify and fully account for all unavoidable impacts. This will include impacts to hard bottom, shallow water, submerged aquatic vegetation, and shellfish beds. Compensatory mitigation must match the type of habitat impacted, the quantity impacted, and be located within the same watershed or system.

We appreciate the effort that has been made to establish the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust (public trust) and fund it as part of the compensatory mitigation package for this project. However, beyond the list of priority project sites, we have no further information on how the Trust will compensate the lost habitat for aquatic resources. It is important to assure that the Trust, as currently arranged, will follow the 2008 mitigation regulations by outlining the exact impacts and propose a specific mitigation plan. It should outline a specific site to offset the impacts and should replace the lost functions and services within the same marine ecological system. As presented, we have no indication how the public trust will distinguish between the different watersheds, and ensure proper compensation to each area. We also have no details or timelines on the priority projects and whether these projects would meet the definition of onsite and in kind, as presented in the 2008 regulations, for the impacts discussed in this document. All compensatory mitigation should be completed prior to or concurrent with the impacts to the resource, as required in the 2008 mitigation regulations. The governance committee, as listed, does not include any Federal Agencies. As this mitigation is a Federal requirement, inclusion of the agencies should be considered. In summary, the mitigation for the impacts to aquatic habitat has not been described and addressed adequately in the EFH assessment. A more detailed compensatory mitigation plan should be developed in accordance with the 2008 compensatory mitigation regulations.

EFH Conservation Recommendations

To minimize impacts to winter flounder EFH and EFH for juvenile bluefish, windowpane flounder, winter flounder, and summer flounder, we offer the following EFH conservation recommendation pursuant to Section 305(b) (4) (A) of the MSA..

1) No in-water work from January 15 to May 31 to minimize impacts to spawning and early life stages of winter flounder.

2) No in-water work from March 1 to June 30 to minimize impacts to migrating, spawning and early life stages of anadromous fish, in the Hudson River and March 1 to May 15 in the Harlem and East Rivers.

3) Reporting of the Pre and Post installation monitoring should be submitted to us on a regular basis, after each event, until it is complete to ensure re-establishment of benthic resources and bottom contours utilized by EFH species and anadromous fish. This should include reporting of the bathymetry monitoring at the three year survey to ensure contours are similar the those on the pre-installation survey.

4) A compensatory mitigation plan for all unavoidable impacts to aquatic habitats including intertidal and subtidal shallows, wetlands and shellfish habitats in accordance with the 2008 federal mitigation regulations should be developed and implemented. The plan should include baseline information on the mitigation site(s), the goals and objectives of the plan, performance measures and success criteria, monitoring and maintenance plans and provisions for the long-term stewardship of the site. Compensatory mitigation should be completed prior to or concurrent with the impacts to the resource, as required in the 2008 mitigation regulations.

Please note that Section 305(b)(4)(B) of the MSA requires you to provide us with a detailed written response to these EFH conservation recommendations, including a description of measures adopted by you for avoiding, mitigating, or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with our recommendations, Section 305(b) (4) (B) of the MSA also indicates that you must explain your reasons for not following the recommendations. Included in such reasoning would be the scientific justification for any disagreements with us over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects pursuant to 50 CFR 600.920(k).

Please also note that further EFH consultation must be reinitiated pursuant to 50 CRF 600.920 (j) if new information becomes available, or if the project is revised in such a manner that affects the basis for above determination.

Fish and Wildlife Coordination Act

The project area provides habitat for a wide variety of NOAA trust resources including resident, migratory and forage species such as winter flounder, bluefish, striped bass, alewife and others. Best management practices should be used during construction to minimize the release of sediments into the waterway. If any work is proposed in wetlands, impacts should be minimized and areas of temporary impact restored.

While the EFH assessment states that sampling of total suspended sediments will be conducted during pre-installation trials and installation, we feel that it would be beneficial to sample during the debris removal operations as well. Backfilling and restoring the pre-existing contours eliminates this waiting period and the habitat can begin to recover more quickly. No in-water work from March 1 to June 30 to minimize impacts to migrating, spawning and early life stages of anadromous fish, in the Hudson River and March 1 to May 15 in the East and Harlem Rivers.

Endangered Species Act

On July 17, 2014, we received your request for Section 7 consultation pursuant to the Endangered Species Act of 1973. Informal ESA Section 7 consultation has been initiated and is ongoing. For further information regarding the Section 7 consultation, please contact William Barnhill at (978) 282-8460 or William.Barnhill@noaa.gov.

We look forward to continued coordination with your office on this project as it moves forward. If you have any questions or need additional information, please do not hesitate to contact Melissa Alvarez at (732) 872-3116 or melissa.alvarez@noaa.gov .

Sincerely,

Louis A. Chiarella
Assistant Regional Administrator
for Habitat Conservation

cc: Jodi McDonald, Jun Yan, ACOE

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