United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Custom House, Room 244
200 Chestnut Street
Philadelphia, Pennsylvania 19106-2904

IN REPLY REFER TO:

June 26, 2019

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ER 19/0181

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
Mail Code: DLC, HL-11.2
888 First St., NE
Washington, DC 20426

RE: Packer-Banks Pumped Storage Project (FERC #14966)
Preliminary Permit Comments

Dear Secretary Bose:

The U.S. Department of the Interior (Department) has reviewed the May 1, 2019 "NOTICE OF PRELIMINARY PERMIT APPLICATION ACCEPTED FOR FILING AND SOLICITING COMMENTS, MOTIONS TO INTERVENE, AND COMPETING APPLICATIONS" regarding the application for preliminary permit filed by Grid Balance Hydropower, LLC (Applicant) for the proposed Packer-Banks Pumped Storage Project to be located in Carbon County, Pennsylvania.

General Comments

On page 2 of the application, the Applicant indicates that there are no existing water bodies at the location of the proposed project. However, there is a significant stream overlap under Option A for the lower reservoir, potential stream overlaps or impacts under Option B for the lower reservoir, and overlap of the remnants of Beaver Creek and an unnamed tributary (impacted by mining operations) by the Option C footprint (see Fisheries Resources comments, below, for more details).

Fish and Wildlife Resources

The following comments and recommendations are submitted pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq*.).

The proposed Packer-Banks Pumped Storage Project could have an adverse impact on existing fish and wildlife resources and their habitats. The Department provides the following comments to assist with both construction and operation planning that can minimize potential adverse effects on fish and wildlife resources in tributaries of Quakake Creek and the Lehigh River, and

in the Spring Mountain Natural Heritage Area. We recommend that the permittee coordinate with the U.S. Fish and Wildlife Service (Service) to consider development and operations that would be compatible with existing fish and wildlife resources.

Construction of the proposed upper reservoir, tunnels and penstocks would eliminate more than 120 acres of forest habitat within the Spring Mountain Natural Heritage Area. Construction of the lower reservoir, if Option A or Option B is chosen, would result in more than 50 additional acres of forest clearing.

Fisheries Resources:

The proposed Option A footprint for the lower reservoir would overlap a significant portion of a stream that is designated as a Pennsylvania Chapter 93 High Quality Cold Water Fishes (HQ-CWF) stream. The proposed Option B footprint for the lower reservoir may overlap the upper headwaters of HQ-CWF streams on the eastern and western sides of the footprint. The proposed Option C footprint for the lower reservoir overlaps a mapped stream that was a designated Chapter 93 Cold Water Fishes stream; however, this stream appears to have been significantly impacted by mining operations. These streams and their special designations can be viewed in the Pennsylvania Natural Heritage Program's Conservation Planning and PNDI Environmental Review tool: https://conservationexplorer.dcnr.pa.gov/.

Assessment of Risks to Migratory Birds:

Due to the amount of forest removal in the applicant's proposal, the potential exists for avian injury from habitat destruction and alteration within the project boundaries. Site-specific factors that should be considered in project siting to avoid and minimize the risk to birds include avian abundance; the quality, quantity and type of habitat; geographic location; type and extent of bird use (*e.g.* breeding, foraging, migrating, etc.); and landscape features. We recommend minimization of land and vegetation disturbance during project design and construction. New activities should be constrained to previously disturbed areas wherever possible (*e.g.*, road and utility line rights-of-way).

We offer the following recommendations to avoid and minimize impacts to migratory birds within and around the project area:

1. Due to the difficulty in assessing the entire project site for all bird nests, we recommend that the clearing of natural or semi-natural habitats (*e.g.*, forests, reverting fields, fencerows, shrubby areas) be carried out between September 1 and March 31, which is outside the nesting season for most native bird species. Without undertaking specific analysis of breeding species and their respective nesting seasons on the project site, the avoidance of habitat impacts during the aforementioned time frame will avoid impacts to most breeding birds, their nests, and their young (*i.e.*, eggs, hatchlings).

2. Avoid permanent habitat alterations in areas where birds are highly concentrated. Examples of high concentration areas for birds are wetlands, staging areas, rookeries, roosts, and riparian areas. Avoid establishing sizable structures along known bird migration pathways or known daily movement flyways (*e.g.*, between roosting and feeding areas).

3. To conserve area-sensitive species, avoid fragmenting large, contiguous tracts of wildlife habitat, especially if habitat cannot be fully restored after construction. Maintain contiguous habitat corridors to facilitate wildlife dispersal. Where practicable, concentrate construction activities, infrastructure, and man-made structures on lands already altered, and away from areas of intact and healthy native habitats. If not feasible, select fragmented or degraded habitats over relatively intact areas.

4. To reduce habitat fragmentation, co-locate roads, fences, lay down areas, staging areas, and other infrastructure in or immediately adjacent to already-disturbed areas (*e.g.*, existing roads, pipelines). Where this is not possible, minimize roads, fences, and other infrastructure. To minimize habitat loss and fragmentation, cluster development features (*e.g.*, buildings, roads) rather than distributing them throughout land parcels.

5. Develop a habitat restoration plan for the proposed site that avoids or minimizes negative impacts on vulnerable wildlife. We recommend the use of plant species that are native to the local area for revegetation of the project area.

Please be aware that since these are general guidelines, some of them may not be applicable to the current project design.

Bald Eagle:

The bald eagle (*Haliaeetus leucocephalus*) was removed from the Federal Endangered Species List on August 8, 2007, and is no longer protected under the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.; ESA); however, bald eagles are still protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). The proposed project falls within the range of the bald eagle. If bald eagles are present in the project area, the Service recommends that you follow the Bald Eagle Management Guidelines found on the Service's website[1] prior to commencement of work.

Threatened and Endangered Species

The following comments are provided as technical assistance pursuant to the ESA. As you may be aware, Federal agencies, including the Federal Energy Regulatory Commission (FERC), have responsibilities under Section 7(a)(2) of the ESA to consult with the Service regarding projects that may adversely affect federally-listed species or "critical habitat," and confer with the Service regarding projects that may affect federally-proposed species or proposed "critical habitat." Pursuant to 50 CFR§402.08, Federal agencies have the option to designate a non-Federal representative for the purposes of conducting informal consultation or preparation of a Biological Assessment. Should the FERC choose to designate Grid Balance Hydropower, LLC as a non-Federal representative, the FERC should send the Service that designation in writing. Directions for completing consultation can be found on the Service's website.[2]

Indiana Bat and Northern Long-eared Bat:

[1] http://www.fws.gov/northeast/EcologicalServices/eagle.html
[2] http://www.fws.gov/northeast/pafo/pdf/HOW%20AND%20WHY%20DO%20I%20CONSULT.pdf

The proposed project is located within the ranges of the federally listed endangered Indiana bat (*Myotis sodalis*) and the federally listed threatened northern long-eared bat (*Myotis septentrionalis*). The Applicant indicates that the proposed project will include tree removal.

Indiana bats and northern long-eared bats hibernate in caves and abandoned mines during the winter months (November through March), and use a variety of upland, wetland and riparian habitats during the spring, summer and fall. These bats usually roost in dead or living trees with exfoliating bark, crevices or cavities. Female Indiana and northern long-eared bats form nursery colonies under the exfoliating bark of dead or living trees, such as shagbark hickory, black birch, red oak, white oak, and sugar maple, in upland or riparian areas. Land-clearing, especially of forested areas, may adversely affect these bat species by killing, injuring or harassing roosting bats, and by removing or reducing the quality of foraging and roosting habitat.

In addition, if any natural caves or abandoned mines occur within the project area, it is possible that bats may be using them during hibernation or potentially as summer roost sites. Entrances to these potential hibernacula could be intentionally or inadvertently closed or destroyed during activities such as land clearing, grading, fill disposal, mining, road construction or building construction. If bats are present within a cave or abandoned mine when this occurs, they may become trapped inside and perish. Even if bats are not present during the closure, they may be adversely affected when they return to their hibernaculum in the fall and find it closed. This will force them to expend energy looking for another suitable hibernaculum during a time when it is crucial that they store up sufficient fat reserves for hibernation. Bats are at an increased risk of mortality when they enter hibernation with insufficient fat reserves, or are unable to locate a cave/mine with the suite of conditions (*e.g.*, temperature, humidity, air flow) necessary for successful hibernation.

Northeastern bulrush:

The proposed project is also located within the range of the federally listed endangered northeastern bulrush (*Scirpus ancistrochaetus*), a plant which is typically found in ponds, wet depressions, shallow sinkholes, vernal pools, small emergent wetlands, or beaver-influenced wetlands. These wetlands are often located in forested areas above 790 feet in elevation and characterized by seasonally variable water levels.

Due to the potential presence of the Indiana bat, northern long-eared bat and northeastern bulrush in the vicinity of the proposed project, further consultation with the Service is recommended [50 CFR § 402.03]. To facilitate our review, we recommend submitting detailed project plans, and an analysis of alternatives to avoid and minimize adverse effects. We also recommend that the Applicant screen their proposed project using the Pennsylvania Natural Heritage Program's Conservation Planning and PNDI Environmental Review tool, available here: (https://conservationexplorer.dcnr.pa.gov/). This screening will help inform the Applicant as to whether resources under the jurisdiction of other agencies are known or likely to occur within the project boundary.

Although not required, we recommend that the following be stipulated in any preliminary permit issued by the FERC regarding FERC No. 14966:

> "The permittee shall design and conduct, at the permittee's expense, as soon as practicable after issuance of the project's preliminary permit, preparatory studies

in cooperation with the Pennsylvania Fish and Boat Commission, Pennsylvania Game Commission, Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Department of Environmental Protection, U.S. Fish and Wildlife Service, National Park Service, and the Bureau of Indian Affairs or affected Tribes if applicable. These studies shall address, but not be limited to, the effects of project construction and operations on the reproduction and survival of aquatic or semi-aquatic fish and wildlife resources, recreational fishing, wetland and riparian wildlife, forest-dependent wildlife, rare plant species, and historical and archaeological resources. The studies shall also identify and evaluate general measures to avoid, offset, and/or reduce adverse project-caused impacts on fish and wildlife resources."

The Department appreciates the opportunity to provide these comments.

Sincerely,

Lindy Nelson
Regional Environmental Officer

cc: FERC Service List

Document Content(s)