



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Mid-Atlantic Fish and Wildlife Conservation Office
177 Admiral Cochrane Drive
Annapolis, MD 21401

April 8, 2022

Low Impact Hydropower Institute
1167 Massachusetts Avenue
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RE: U.S. Fish and Wildlife Service comments on the Low-Impact Hydropower Institute Certification Application for the Holtwood Hydroelectric Project (FERC No. 1881), dated December 2021.

Dear Low Impact Hydropower Institute:

The U.S. Fish and Wildlife Service (Service) is submitting the following comments to be considered by the Low Impact Hydropower Institute (LIHI) for recertification of the Holtwood Hydroelectric Project (Project) owned by BIF III Holtwood LLC (Company). The Service is interested in several items at the Project, namely operation of the fish passage facilities, implementation of the Tier II radio telemetry study, completion of the zone of passage work in the Project's tailrace, and records of periodic low dissolved oxygen in the Project area.

The Project is required to operate upstream fish passage at the facility for migratory fish in the spring. The Project last operated fish passage in spring 2020, and operation was terminated early at the request of the resource agencies due to concern over passing invasive species (northern snakehead) that were passed into Conowingo Pond by the fish passage facilities at Conowingo Dam, the next downstream dam. The Project has no mechanism currently to remove or isolate any fish from the fish lifts, so operation of the fish passage facility at the Project has the potential to pass invasive species upstream into Lake Aldred. Due to continued agency concern over the upstream expansion of invasive species and the unknown threat of passage of northern snakehead at the Project, the agencies have requested the Project not operate its fish passage facilities in the 2021 or 2022 seasons. The Company has complied with the resource agency requests. Moving forward, continued discussions around fish passage operation and invasive species will need to occur between the agencies and the Company.

The Tier II radio telemetry study has been conducted for two of the required three-year minimum study period. The first two years of study (2018-2019) found that upstream fish passage efficiency for American shad at the Project was very poor (12.4%, 10.5% respectively). The Project is required to achieve 85% passage efficiency for American shad that enter the Project's waters. Although operation of the fish passage facility is temporarily suspended at request of the

resource agencies, the Service encourages the Company to continue to make fish passage improvements to the fish lifts based on the issues identified in the first two years of the radio telemetry study. Continued improvements to the facilities will ensure that once fish passage operations are re-initiated and studies can be resumed, the Project will have a higher likelihood of achieving the 85% upstream passage efficiency.

In addition to fish passage concerns around conducting the Tier II telemetry study, the zone of passage requirements in the Project tailwaters were not fully implemented during, or after, the Project's redevelopment. The agencies have not waived the requirement to address the issue of excess material being left in the zone of passage, but have considered delaying addressing the zone of passage issue until results from the radio telemetry study can further inform areas of concern for fish passage within the Project boundary. At this time, the most significant concern impacting upstream fish passage efficiency appears to be at the fish lifts themselves, but future study is needed to further evaluate the completion of debris removal from the zone of passage.

Dissolved oxygen (DO) monitoring has been required at the Project impoundment and tailwaters by the Pennsylvania Department of Environmental Protection (PADEP). As part of that monitoring, there have been instances where the Project has not achieved the minimum DO level of 5.0 mg/L required at the Project by PADEP. Although annual DO reporting from the Company suggests that the low DO levels are a result of natural processes in the forebay, the Service contends that the low DO levels are a Project effect. DO concentrations downstream of the Safe Harbor Hydroelectric project were in excess of 7.0 mg/L during the time of the low DO events at the Project in 2021. The impoundment created by the Project increases water temperatures in summer months, and the higher temperatures and the impounded river condition are likely resulting in low DO conditions in the Project forebay, which are then transferred to the Project tailrace. Future consideration should be given to improving DO levels at the Project to be safe for fish that may be in the forebay and tailwaters in the summer months.

At this time, the Service acknowledges that the Project is in compliance with its License requirements around fish passage and the Company has been responsive to the temporary modifications to fish passage operations that have been requested by the resource agencies. We look forward to our continued work with the Company to ensure that fish passage improvements are made in a timely manner at the Project and that invasive species passage and low dissolved oxygen levels can also be addressed in future. Thank you for the opportunity to provide comments to their LIHI recertification. Feel free to reach out to me if you have any questions or need additional information.

Sincerely,



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