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

August 14, 2019

Shannon Ames
Executive Director
Low Impact Hydropower Institute
329 Massachusetts Avenue
Lexington, MA 02420

RE: Comments on Application for Low Impact Hydro Recertification of the Lower Robertson and Ashuelot Hydroelectric Projects.

Dear Ms. Ames,

On June 11, we received notice that Ashuelot River Hydro, Inc. filed a Low Impact Certification application (application) for the Ashuelot Paper (FERC No. 7791) and Lower Robertson (FERC No. 8235) Hydroelectric Projects on the Ashuelot River in Winchester, NH. We have reviewed the application and the history of certification and recertification documents and we conclude that that Ashuelot River Hydro, Inc. will continue to operate within LIHI's criteria for certification. The application provides important information about fish passage at both projects. We offer the following comments for your consideration.

Section titled "Information Required to Support Ecological Flow Standards"

We support each of the projects operating in run-of-river mode and conforming to the stream flow gauging plan. We do not have site specific information to make a minimum flow recommendation.

Section titled "Information Required to Support Upstream Fish Passage Standards."

This section provides valuable information on the two projects, specifically the explanation of the trigger number of 150 shad spawning in the reach between Fiske Mill and Lower Robertson. The decision for that trigger number was made in a previous licensing and given the history at this site, we do not object to maintaining the trigger number. This trigger number may need reconsideration if passage at Fiske Mill Hydro is provided by means other than the current fish lift. We anticipate that Fiske Mill Hydro will initiate formal monitoring in 2020 at the Fiske Mill Project (FERC P-8615), which will inform our decision to initiate passage at the Ashuelot Paper and Lower Robertson projects, as appropriate.

Section titled "Information Required to Support Downstream Fish Passage Standards"

Based on American shad stocking numbers from the New Hampshire Fish & Game Department, Adult American shad have been trapped at the Holyoke Project in Massachusetts and stocked upstream of the Lower Robertson project since 2005 (Table 1). The post-spawn adults and juveniles must pass downstream to reach estuarine and marine habitats as part of their life cycle. Stich et al. (2018) found that high downstream survival standards juveniles and post-spawn adults provides the highest likelihood for recovering the shad population in the river, and we view this as an important component of shad restoration.

Table 1. Summary of annual totals of American shad stocked above the Lower Robertson project.

Year	Total Released
2005	721
2006	267
2007	793
2008	393
2009	252
2010	141
2011	180
2012	421
2013	672
2014	142
2015	498
2016	351
2017	403
2018	318

We support the use of trash rack bars with ¾" spacing to prevent entrainment into the turbines at both project sites. The application however, does not provide any dimensions on receiving water body, namely depth, or any other information that highlighted any standards that were used to ensure that fish the pass via the downstream migrant pipe were not harmed. The July 20, 2001 FERC Order Approving Downstream Fish Passage Facility Plan does not provide any additional detail on the receiving water body for fish that pass via the downstream pipe. The final design of the downstream passage measures should incorporate the U.S. Fish and Wildlife criteria to ensure safe and timely passage (USFWS 2017).

Thank you for the opportunity to comment on this recertification application. If you have any questions please contact Sean McDermott (sean.mcdermott@noaa.gov / 978-281-9113)

Sincerely,

Christopher Boelke
New England Field Office Supervisor
for Habitat Conservation

Reference

Stich, D.S., Sheehan, T.F., and Zydlewski, J.D. 2018. A Dam Passage Performance Standard Model for American Shad. Canadian Journal of Fisheries and Aquatic Sciences(ja).

USFWS. 2017. Fish passage Engineering Design Criteria. US Fish and Wildlife Service, Northeast Region R5, Hadley, MA.