

Mr. Fred Ayer, Executive Director
Low Impact Hydropower Institute
34 Providence Street
Portland, ME
04103

RE: Red Bridge Project (FERC No. P-10676)

Dear Mr. Ayer:

The Department of Fish and Game (“DFG”) hereby submits the following comments on the Low Impact Hydropower Institute’s (“LIHI”) Pending Application for the proposed LIHI certification of North American Energy Alliance, LLC’s (“NAEA”) Red Bridge Project. The project is located on the Chicopee River in the Towns of Wilbraham, Ludlow, Palmer and Belchertown in Hampden and Hampshire Counties, Massachusetts.

DFG is submitting these comments to LIHI in order to fulfill the requirements of the Massachusetts Department of Energy Resources (“DOER”) Renewable Energy Portfolio Standard Regulations (225 CMR 14.00; “RPS I” and 225 CMR 15.00; “RPS II”). The RPS I and RPS II regulations were promulgated by DOER on January 1, 2009 and require that any hydroelectric project wishing to qualify as either a RPS I or RPS II generator first obtain LIHI certification. These regulations also require all relevant regulatory agencies to comment on the pending LIHI application.

The Department does not support NAEA’s application for LIHI Certification of the Red Bridge Hydroelectric Project for the reasons outlined below.

PROJECT

The project includes a dam with a crest elevation of 272.3’ (NGVD), a canal headgate house, a power canal, two operating penstocks, a powerhouse with two generating units, a tailrace channel (normal tailrace elevations 222.7’) and appurtenant facilities. The project creates a bypass reach approximately 1,600 feet long.

At normal pond elevation, the Red Bridge Project impoundment extends approximately 1.8 miles upstream of the dam with a maximum surface area is approximately 185 acres at El. 272.3’. Although the permitted storage is approximately 530 acre-feet and the permitted daily drawdown is two feet except during annual energy audits and system emergencies when a drawdown of as much as three feet may be used, the Project uses only one foot of its drawdown and 185 acre-feet of its storage.

The Red Bridge project is situated upstream of five other hydroelectric facilities located on the Chicopee River and downstream of other dams on the Ware, Swift and Quaboag Rivers.

FISH AND WILDLIFE RESOURCES

The Chicopee River is the largest drainage basin in Massachusetts (721 square miles). The River is formed where its three tributaries, the Swift, the Ware, and the Quaboag, meet in Palmer. The Swift River's three branches were impounded in 1938 to form the Quabbin Reservoir. The upper section of the Ware River is also seasonally diverted into the Quabbin Reservoir. Operation of the Quabbin Reservoir has led to significant flow alteration in the Chicopee River.

The fish of the Chicopee River include microhabitat generalists species such as chain pickerel, bluegill, golden shiner, largemouth bass and smallmouth bass; fluvial species such as white sucker, common shiner; and tessellated darter. The only migratory fish found upstream of the first dam on the system (Dwight dam) is the American eel. Anadromous fish such as American shad, Blueback herring and sea lamprey are present downstream of the Dwight dam. The 2009 publication "Development of Target Fish Community models for Massachusetts Mainstem Rivers" determined that fish species expected to be abundant in the Chicopee river (fallfish, common shiner, blacknose dace, white sucker, and longnose dace) are at low abundance or absent from existing fish survey data.

IMPACTS AND MITIGATION FLOWS

Run-of-river Operation

The project does not operate as a run-of-river project. The project operated in a "limited pond and release mode" which raises and lowers the impoundment by one foot on a daily basis. This mode of operation also results in unnatural flow variations in the Chicopee River downstream of the project.

Bypass reach

The project's FERC license guarantees that a minimum flow of 237cfs or inflow is released into the project's 1,600 foot long bypass reach. This flow was recommended in 1989 by the USFWS. The flow is either the estimated median August flow and represents 0.36 cfs/m (cfs per square mile of drainage area). This flow is not representative of a natural flow regime and is not appropriate as a year round flow requirement.

FISH PASSAGE

The project has no fish passage requirements.

COMMENTS

The Department does not support NAEA's application for LIHI Certification of the Red Bridge Project.

This project, with its daily peaking operations and impoundment, contributes to changes to the nature of the Chicopee River and cannot be described as "Low Impact".

Likewise a minimum flow of 237cfs in a 1,600 foot long section of the Chicopee River cannot be described as “Low Impact”. Using summer flows for a year round prescription subjects fish and wildlife resources to year round low flow conditions and does not reflect the current state of knowledge for instream flow requirements.

The Department opposes LIHI certification of this project until such time as this project is operated in a significantly more environmentally sensitive manner.

Thank you for this opportunity to comment.

Sincerely,

Caleb Slater, Ph.D.
Anadromous Fish Project Leader