



United States Department of the Interior



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May 20, 2021

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
88 First Street, N.E.
Washington, DC 20426

RE: Notice of Application for Surrender of License, Soliciting Comments, Motions to Intervene, and Protests

Dear Secretary Bose,

This is the U.S. Fish and Wildlife Service's (Service) response to Kennebunk Light and Power District's (KLPD) Application for Surrender of License (Application) for the Lower Mousam Hydroelectric Project (FERC No. 5362-021; Project). The Project is located on the mainstem Mousam River in York County, Maine and consists of three developments (Kesslan, Twine Mill, and Dane Perkins). On March 12, 2021, the Service provided comments on a draft surrender application noting concerns related to fish passage, water quality, and dam maintenance responsibilities following surrender.¹ Since then, the Service has reviewed the final Application and consulted with the Rachel Carson National Wildlife Refuge (Refuge) and has the following comments.

BACKGROUND

The Refuge was established in 1966 in Cumberland and York counties, Maine to protect vulnerable salt marshes and estuaries for migratory birds. The Refuge protects 50 miles of shoreline and encompasses a total area of approximately 5,000 acres, including the shoreline of the lower Mousam River. Upland forests, dunes, coastal meadows, and salt marshes protected by the Refuge support migratory birds and rare, threatened, and endangered species, such as the federally endangered salt marsh-obligate salt marsh sparrow (*Ammodramus caudacuta*). The Refuge is not only an important ecological resource, it also welcomes hundreds of thousands of recreationists annually, including wildlife watchers, hunters, fishers, and paddle sport enthusiasts.

¹ Accession No. 20210401-5445

COMMENTS

Salt marshes and wetlands are critically important for coastal ecosystems. Salt marshes provide ecosystem services such as food, water filtration, carbon sequestration, fish and wildlife habitat, recreation, coastal protection, and erosion control (Barbier et al. 2011; Shepard et al. 2011). Consequently, salt marshes are critical for coastal resilience to climate change and severe weather events. However, salt marsh habitat area has declined through time with estimated losses of 37% in the northeastern United States (Bromberg and Bertness 2005). Invasive species, development, eutrophication, pollution, climate change, and altered hydrologic regimes threaten salt marsh ecosystems (Bromberg and Bertness 2005; Silliman 2014). Alteration of hydrologic regimes change sediment dynamics and transport to salt marsh ecosystems. Sediment is important for the maintenance of salt marsh habitats as deficient sediment supplies can lead to salt marsh degradation (Ladd et al. 2019) and losses of their ecological benefits. Consequently, maintaining sediment balance is critical to ensure persistence of salt marshes and their ecosystem services.

The construction of dams can alter the existing hydrological regime and sediment transport to coastal regions (Syvitski et al. 2005). Dams create slow-moving reaches of once flowing rivers, which promotes sediment deposition behind the dam. Consequently, the Project is limiting the transport of sediments downstream and is therefore impacting downstream salt marsh and wetland habitats within, and beyond, the Refuge boundary. The surrender as presented in the Application will continue to trap sediments that would otherwise benefit salt marsh and wetland habitats downstream of the Project. Given the important ecological, economic, and recreational services the Refuge provides, we request that KLPD consult with the Service, and the other resource agencies, to seek solutions that promote the natural function of the Mousam River, such as (1) developing a sediment management plan; (2) exploring the utility of sediment bypasses, pass-throughs, and excavation (see Kondolf et al. 2014); and (3) partnering with non-government and government organizations to explore opportunities for removal or partial breach of the Lower Mousam dams.

The Service appreciate the opportunity to comment and looks forward to working with KLPD to address these concerns. If you have any questions, please contact Corbin Hilling at corbin_hilling@fws.gov.

Sincerely,

Peter Lamothe
Complex Manager
Maine-New Hampshire
Fish and Wildlife Service Complex

cc:

FERC – Secretary (e-filed)

KLPD – Todd Shea (e-mail)

USFWS –Susan Adamowicz, Julianne Rosset, Karl Stromayer (e-mail)

Maine DEP – Kathy Howatt (e-mail)

MDMR – Casey Clark, Sean Ledwin, Gail Whippelhauser (e-mail)

NMFS – William McDavitt (e-mail)

Literature Cited

Barbier, E. B., S. D. Hacker, C. Kennedy, E. W. Koch, A. C. Stier, and B. R. Silliman. 2011. The value of estuarine and coastal ecosystem services. *Ecological Monographs* 81:169–193.

Bromberg, K. D., and M. D. Bertness. 2005. Reconstructing New England salt marsh losses using historical maps. *Estuaries* 28:823–832.

Kondolf, G.M., Y. Gao, G. W. Annandale, G. L. Morris, E. Jiang, J. Zhang, Y. Cao, P. Carling, K. Fu, Q. Guo, and R. Hotchkiss. 2014. Sustainable sediment management in reservoirs and regulated rivers: experiences from five continents. *Earth's Future* 2:256–280.

Ladd, C. J. T., M. F. Duggan-Edwards, T. J. Bouma, J. F. Pagés, and Martin W. Skov. 2019. Sediment supply explains long-term and large-scale patterns in salt marsh lateral expansion and erosion. *Geophysical Research Letters* 46:11178–11187

Silliman, B. R. 2014. Salt marshes. *Current Biology* 24:348–350.

Shepard, C. C., C. M. Crain, and M. W. Beck. 2011. The protective role of coastal marshes: a systematic review and meta-analysis. *PLoS One* 6: e27374.

Syvitski, J. P. M., C. J. Vörösmarty, A. J. Kettner, and P. Green. 2005. Impacts of humans on the flux of terrestrial sediment to the global coastal ocean. *Science* 308:376–380.