



# United States Department of the Interior



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IN REPLY REFER TO:  
FWS/ILIAFO  
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January 10, 2022

Low Impact Hydropower Institute  
1167 Massachusetts Avenue  
Office 407  
Arlington, MA 02476

Subject: Rod Rock Hydroelectric Facility (Iowa)

To whom it may concern:

The Low Impact Hydropower Institute (LIHI) requested review and comment from the US Fish and Wildlife Service (Service) and the Iowa Department of Natural Resources (IDNR) on the Western Minnesota Municipal Power Authority's (WMMPA) application for renewable energy credits based on the performance of the hydropower facility at Red Rock Lake, Iowa. This letter responds to that request.

The IDNR has the most experience and expertise related to the local fishery at the facility. The IDNR has expressed concerns in the past related to fish health in the tailrace and note that the tailrace fishery is an extremely popular resource for anglers. The IDNR expressed those concerns during the FERC licensing process and has recently (2021) implemented monitoring to evaluate the fish community health in the tailrace. Preliminary results from the 2021 evaluation suggest that multiple species of fish are experiencing physical injury while passing downstream through either the dam or hydropower facility. In addition to physical injury to fish, the IDNR evaluation noted evidence of Gas Bubble Disease (GBD). GBD can negatively impact this important fishery by causing sublethal stress, delayed mortality, and immediate mortality to fish.

As a result of the IDNR's evaluation and professional input from their local fishery managers, the DNR makes the following recommendations:

- The IDNR recommends that the applicant (in coordination with the IDNR Fisheries Bureau) implements a multi-species balloon tag study. This study exposes tagged fish to turbine passage by releasing them inside the inlet, ensuring they pass through the power-generating turbines and emerge downstream. The tags are then activated in the tailrace

inflating a balloon which forces the fish to the surface, allowing it to be retrieved and analyzed for injury or mortality. At minimum, the IDNR recommends examination of important sport fish species including Walleye, Hybrid Striped Bass, White Bass, and White Crappie. A balloon tag study would require consultation from a balloon tag service provider, along with IDNR collaboration to collect fish.

- The IDNR recommends that the applicant (in coordination with the IDNR Fisheries Bureau and other partners) establish continuous monitoring of total dissolved gases in the tailrace. Optimal placement of total dissolved gas sondes would entail four locations: one on the far left side of the dam, one in the middle between the dam and hydropower facility, one on the far right side of the hydropower facility, and one immediately downstream. Together, these sondes would facilitate an understanding of how the tailrace waters mix, as well as how conditions change with varying outflow management.

The Service fully supports the recommendations of our partners at the IDNR and request that they be carefully considered to further mitigate any negative impacts being realized on the local fishery in the tailrace at the Red Rock facility. This letter provides comments under the authority of and in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

If you have any questions regarding our comments, I may be contacted at (309) 757-5800, extension 202.

Sincerely,

Kraig McPeck  
Field Office Supervisor  
Illinois and Iowa ES Field Office