

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426
March 22, 2024

OFFICE OF ENERGY PROJECTS

Project No. 1869-066 – Montana
Thompson Falls Hydroelectric Project
NorthWestern Energy

VIA FERC Service

Andrew Welch
Manager, Hydrolicensing Compliance
NorthWestern Energy
208 N Montana Ave, Suite 200
Helena, Montana 59601

Subject: Request for Additional Information

Dear Mr. Welch:

On February 26, 2024, we requested additional information needed for Commission staff to evaluate NorthWestern Energy's relicensing proposal. Since that time, the Commission's Division of Dam Safety and Inspections has completed its review of your license application and has identified further information needed for their review, which is included in Schedule A of this letter. Under section 5.21 of the Commission's regulations, please file the information requested in Schedule A within 90 days from the date of this letter.

If the required information causes any other part of the application to be inaccurate, please revise that part and refile it by the due date. Also, please be aware that further requests for additional information may be sent to you at any time before final action on your application.

Project No. 1869-066

If you have any questions, please contact Michael Tust at (202) 502-6522, or via email at michael.tust@ferc.gov.

Sincerely,

David Turner, Chief
Northwest Branch
Division of Hydropower Licensing

Enclosure: Schedule A – Additional Information

cc: VIA FERC Service

John Tabaracci
Senior Corporate Counsel
NorthWestern Energy
208 N. Montana Avenue, Suite 200
Helena, Montana 59601

ADDITIONAL INFORMATION

1. Regarding your proposal to utilize the top 2.5 feet of reservoir storage rather than continuing to be able to utilize the top 4 feet as is currently authorized, staff will need to understand if this proposed change would affect the routing of the Inflow Design Flood (IDF) and the resulting maximum water levels. Therefore, please review the current IDF study and determine if your proposed higher reservoir level would impact the IDF maximum water surface elevation. If a new or updated analysis is performed, please prepare and submit a report that contains the following:
 - a. A summary of the modeling results;
 - b. Copies of all input and output files used in the analyses; and
 - c. A statement from your Chief Dam Safety Engineer that they have reviewed the engineering analysis and agrees with the findings.

2. It is also not clear whether your proposed operational change described above would affect upstream and downstream flooding of non-project properties and structures. Therefore, please prepare a separate engineering analysis and file a summary report that contains the following:
 - a. An analysis of historical storms/floods that occurred at the project, such as the Flood of Record. The analysis should include an estimate of the recurrence interval of each historical event and the resultant upstream and downstream impacts. If sufficient records do not exist (e.g., gage records, impoundment elevations, inflows, outflows), this analysis could be accomplished by preparing a hydrologic and/or hydraulic model (e.g. HECHMS, HEC-RAS) based on historic precipitation data and watershed characteristics to simulate the historic floods and estimate flooding impacts.
 - b. A flood frequency analysis of flows at the project. At a minimum, the magnitude of the 2-year, 5-year, 10-year, 25-year, 50-year, 100-year, and 500-year events should be determined.
 - c. A comparison of how potential flood impacts in areas upstream and downstream of the project would differ for each historical and flood frequency event. The comparison should quantify the number of flooded non-project properties and structures, the depth and velocity of water at these structures, and the total inundated area. This analysis will likely require using a hydraulic model, as suggested in item (a) above, to route flows for the various events.

- d. Any proposed modifications or remedial measures you plan to implement to address impacts on upstream or downstream flooding;
- e. A copy of all input and output files used in the analyses; and
- f. A statement from your Chief Dam Safety Engineer that they have reviewed the engineering analysis and agrees with the findings.