

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426  
October 19, 2023

OFFICE OF ENERGY PROJECTS

Project No. 1869-060 – Montana  
Thompson Falls Hydroelectric Project  
NorthWestern Energy

**VIA FERC Service**

Mary Gail Sullivan  
Director, Environmental and Lands Permitting & Compliance  
NorthWestern Energy  
11 East Park Street  
Butte, Montana 59701

**Subject: Staff Comments on the Draft License Application for the Thompson Falls Hydroelectric Project**

Dear Ms. Sullivan:

On August 3, 2023, NorthWestern Energy filed a draft license application with the Federal Energy Regulatory Commission for the Thompson Falls Hydroelectric Project No. 1869. Our comments are in the attached Appendix A. Please provide the requested information in the final license application.

If you have any questions regarding this letter or the contents of the final license application, please contact Michael Tust at (202) 502-6522, or via email at [michael.tust@ferc.gov](mailto:michael.tust@ferc.gov).

Sincerely,

David Turner, Chief  
Northwest Branch  
Division of Hydropower Licensing

Attachment: Appendix A – Comments on the Draft License Application for the Thompson Falls Hydroelectric Project No. 1869-060

**COMMENTS ON THE DRAFT LICENSE APPLICATION  
FOR THE THOMPSON FALLS HYDROELECTRIC PROJECT NO. 1869-060**

Exhibit A

1. Exhibit A states that “project generation is interconnected to NorthWestern’s transmission system by the 115 kV Burke A and B lines and the 115 kV Kerr A and B lines on the roof of the original powerhouse. Short generator lead lines connect the plant to the point of interconnection. The lead line connecting Units 1 through 6 is approximately 50 feet long and the Unit 7 line is approximately 300 feet long.” This suggests that the primary transmission line for the original powerhouse consists of the 50-foot-long lead lines running up to the roof whereas the primary transmission line for Unit 7 in the second powerhouse runs overhead for 300 feet and connects at the same interconnection location on the roof of the original powerhouse. In your final license application, please confirm that the roof of the original powerhouse is where the primary project transmission lines for both powerhouses connect to the regional grid and be sure to clearly label all primary project transmission lines on your Exhibit F and G drawings.

Exhibit B

2. Section 4.51(c)(2)(i) of the Commission’s regulations requires that the Exhibit B contain monthly flow duration curves. Section 2.1 of Exhibit B of the draft license application contains one graph showing the combined annual flow duration curve based on monthly mean flow. In your final license application, please include flow duration curves for each individual month.

Exhibit E

*Baseline Conditions*

3. In conducting our analysis, Commission staff assess environmental effects of the proposed action and action alternatives when compared to current conditions (i.e., baseline). Throughout your draft license application, you describe existing conditions as providing baseload and flexible generation within the reservoir elevation and minimum flow requirements of the existing license, including utilizing the top 4 feet of the reservoir for these purposes. However, you have previously stated that you have rarely utilized the full 4-foot daily fluctuation authorized by the license but instead have typically only utilized the top 1.0 to 1.5 feet of the reservoir.<sup>1</sup> This is

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<sup>1</sup> See NorthWestern Energy’s October 27, 2020 letter.

consistent with the results of your operations study which found that the reservoir level was maintained within the top 1-foot (i.e., between 2396.5 feet and 2395.5) for 87 percent of time during the March 15 to October 31 2022 study period, with a minimum elevation of 2394.7 feet (i.e., 1.8 feet below full pool) occurring for only a brief time in September.<sup>2</sup> Based on this, staff will likely consider baseline conditions as utilizing the top 1.5 feet with only occasional brief periods when the reservoir is lowered below that point. Therefore, Exhibit E should be revised to describe environmental effects of utilizing the top 2.5 feet on a more routine basis compared to the 1.5 feet that has been typically utilized under existing conditions. Additionally, table 9-1 of Exhibit D should contain a value of the flexible capacity of utilizing only the top 1.5 feet of the reservoir in addition to the already calculated values for utilizing the top 4 feet and top 2.5 feet.

#### *Project Boundary Modifications*

4. Section 2.2.3 of Exhibit E describes your proposed changes to the project boundary, including specific parcels/acres of land and water you propose to add and remove from the current project boundary and the reasons why. However, so that staff can better visualize the differences, please include a figure showing the proposed project boundary overlaid on top of the current project boundary.

#### *Aquatic Resources*

5. Section 6.2.1 of Exhibit E contains a summary of minimum, maximum, and mean daily streamflow in the Clark Fork River entering the project. We note that estimates of median flows can also be an indicator of how often flows remain within the operating capacity of the project. Therefore, please add median flow values to Figure 6-1 and Table 6-1 of Exhibit E. Additionally, please add a separate table to Exhibit E showing the minimum, maximum, mean, and median streamflow values for each individual month in addition to the yearly flow data shown in Table 6-1.
6. Page 7-23 of section 7.1.2.4 of Exhibit E mentions that “required maintenance work on the dam resulted in a reservoir drawdown during the summer of about 13 feet during 2011 and 16 feet in 2018.” However, no other details on planned maintenance drawdowns are provided. Staff will need to understand the timing, frequency, or duration of maintenance drawdowns of the reservoir (such as for repairs to the intake facilities or upstream passage facility) to understand effects of maintenance on water quality, fish resources, and aquatic and shoreline habitat at the project. Therefore, please include in Exhibit E of your final license application a description of: (1) the types of maintenance activities that would result in maintenance drawdowns of the

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<sup>2</sup> See pages 3-23 through 3-26 of the Updated Study Report filed on May 8, 2023.

reservoir below the typical operating level; (2) the specific elevation (or range of elevations) that the reservoir is typically drawn down to for maintenance purposes; (3) the frequency and duration of typical maintenance drawdowns; (4) any seasonal limitations or preferences for the maintenance drawdowns if they exist; and (5) associated effects of planned maintenance drawdowns on aquatic resources and shoreline habitat.

7. Section 7.1.5.1 of Exhibit E states that one Western Pearlshell mussel (a state-designated species of concern in Montana) was found during a survey conducted by Montana Department of Fish, Wildlife, and Parks just upstream of the Dry Channel Dam along the shallows along the Island Park shoreline. You state this was the first time this species was documented in Thompson Falls Reservoir but that the reservoir “does not provide optimal habitat to support a viable and reproducing population of mussels.” In your license application, please provide a basis for this conclusion and provide more information on the biology of the species, including depths that adult and juvenile life stages are found along with details concerning its life history (i.e., seasonal spawning periods and times when sensitive life stages are typically present).
8. Some of your proposed aquatic protection, mitigation, and enhancement measures listed in section 7.2.2 of Exhibit E are too vague to evaluate. These include the following:
  - “Evaluate and assess opportunities to enhance the effectiveness of the existing upstream fish passage facility.”
  - “Continue to engage with TAC partners on PM&E.”
  - “NorthWestern is in discussions with other Relicensing Participants concerning other potential environmental PM&E measures.”

In your final license application, please only indicate specific actionable measures you propose to take for minimizing effects to environmental resources and be sure to describe their benefits and associated costs. For example, what specific actions do you plan to take to assess the effectiveness of the existing passage facility? What methods and metrics will you use to determine passage effectiveness? Please include this level of detail for each environmental measure you propose.

### *Recreation Resources*

9. In Table 11-1, Figure 11-1, and in section 11.1.1, *Existing Recreation Facilities Near the Project Area*, you describe recreation-related sites; however, it is not clear

whether these sites are project recreation sites or non-project recreation sites.<sup>3</sup> In the final license application, please classify the sites and update the table and figure accordingly.

Additionally, it appears that the non-project recreation site, Cherry Creek Boat Launch, is included in table 11-1, but not in figure 11-1. Please update the map to include all project and non-project recreation sites.

### *Cultural Resources*

10. In section 2.4 of the draft Historic Properties Management Plan (filed August 3, 2023), the Area of Potential Effect (APE) is defined as “lands within the project boundary as delineated in the new FERC license.” However, the APE should be determined in consultation with the SHPO. While this generally conforms to the project boundary, it could include additional lands outside the project within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. Please provide documentation of Montana SHPO concurrence on the APE.

### *Comprehensive Plans*

11. Section 16.8(f)(6) of the Commission’s regulations requires licensees to explain how and why the project would, would not, or should not, comply with any relevant comprehensive plan and a description of any relevant resource agency or Indian tribe determinations regarding the consistency of the project with any such comprehensive plan. In the draft license application, you list several comprehensive plans that you identify as relevant to the project; however, you do not explain how or why the proposed project is consistent with the plans. In the final license application, please provide this explanation for each relevant comprehensive plan. Be sure to use the most current list of comprehensive plans approved for Montana. This list is available on the Commission’ webpage at: <https://cms.ferc.gov/media/comprehensive-plans>.

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<sup>3</sup> Project recreation sites are public recreation sites and facilities located within the project boundary that are proposed by an applicant/licensee, required by a license, included in an approved Recreation Management Plan, and/or specified as a mandatory condition. Non-project recreation sites are public recreation sites that are not required by the terms of the project license, over which the licensee typically has no ongoing maintenance or operation responsibilities. Such non-project recreation may include residential and commercial marinas, municipal parks, or regional trails.

Exhibit G

12. Section 4.51(h) of the Commission's regulations requires an Exhibit G that conforms to section 4.41(h). Section 4.41(h) of the Commission's regulations requires that Exhibit G include: (1) project boundary data in a geo-referenced electronic format (i.e., ArcView shapefile or similar format), (2) electronic boundary data that is positionally accurate to  $\pm 40$  feet, and (3) a text file describing the map projection used for the Exhibit G data. Be sure to include this information with your final license application in accordance with section 4.41(h).

Exhibit H

13. Section 5.18(c)(1)(F)(3) of the Commission's regulations requires that the Exhibit H include a detailed single-line electrical diagram. In your draft application, the single-line electrical diagram was filed as Critical Energy Infrastructure Information (CEII). The single-line diagram is not considered CEII and should be filed as public information as part of Exhibit H of your final license application.