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August 12, 2024

VIA Electronic Filing

Ms. Debbie-Anne Reese, Acting Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Subject: Response to Deficiency of License Applications and Request for Additional Information
Hayward Hydroelectric Project (FERC Project No. 2417-067)
Trego Hydroelectric Project (FERC Project No. 2711-025)

Dear Acting Secretary Reese:

On May 14, 2024, the Federal Energy Regulatory Commission (FERC or Commission) issued a *Deficiency of License Applications and Request for Additional Information* letter to Northern States Power Company - Wisconsin (NSPW) regarding its final license applications for the Hayward Hydroelectric Project (FERC No. 2417) and the Trego Hydroelectric Project (FERC No. 2711). Accordingly, NSPW hereby submits the following information and responses as requested in the Commission's aforementioned letter.

DEFICIENCIES

EXHIBIT F
Hayward Project

Deficiency Comment 1:
Section 4.61(e) of the Commission's regulations, which references section 4.41(g), requires drawings show all major project features to provide a full understanding of the project, including: (i) plans; (ii) elevations; (iii) profiles; and (iv) sections. The drawings do not show all major project features necessary to provide a full understanding of the project and must be revised to include and label the following:

a) *Sheet 1, Plan and Section B-B Powerhouse with Intake Channel, the trashracks, steel bulkhead, and stoplog slots;*
b) *Sheet 1, Plan, the route of primary transmission line, the transformer, and the point of interconnection;*
c) *Sheet 1, Section D-D Concrete Overflow Spillway and Left Embankment, the 3.2-foot-high steel bulkhead the two removable timber stoplogs, and include the sill and top elevations of the steel bulkhead and stoplogs; and*
d) *A typical section through bays 1 and 2 showing the 4.4-high-tall slide gates providing for a maximum design elevation of 1187.6 feet National Geodetic Vertical Datum of 1929.*

NSPW Response:
The Hayward Exhibit F has been revised to include the requested information. The revised Hayward Exhibit F is included in **Appendix AIR-1.**

EXHIBIT F
Trego Project

Deficiency Comment 2:
Section 4.41(e) of the Commission's regulations, which reference section 4.41(g), requires drawings show all major project features to provide a full understanding of the project. The drawings do not show all major project features to provide a full understanding of the project and must be revised to include the following:

a) *Sheet 1, Plan, show and label the route of primary transmission line and the point of interconnection; and*
b) *Sheet 1, Plan, add a graphical scale.*

NSPW Response:
The Trego Exhibit F has been revised to include the requested information. The revised Trego Exhibit F is included in **Appendix AIR-2**.

ADDITIONAL INFORMATION REQUEST

EXHIBIT A
Both Projects

AIR Comment 1:
Hayward Project, section 6, Project Operation, page A-HAY-5 and Trego Project, section 6, Project Operation, page A-TRE-5, each state that proposed operation would include raising the reservoir elevation by up to 0.5 feet above the maximum elevation to remove ice from the spillway. For each project please provide:

a) *the maximum reservoir elevation proposed to allow ice removal from the spillway; and*
b) *the changes to project operation that would be used to produce the maximum reservoir elevation proposed to remove ice from the spillway.*

NSPW Response:
NSPW has revised Section 6 of the Exhibit A for both Projects, as well as Exhibit E, removing all references to raising the water level elevation by up to 0.5 feet above the maximum elevation to remove ice from the spillway. Therefore, there are no changes proposed to the maximum reservoir elevation at either Project.

The revised Hayward Exhibit A, Trego Exhibit A, and Exhibit E have been included in **Appendix AIR-3**, **Appendix AIR-4**, and **Appendix AIR-5**, respectively.

AIR Comment 2:

Hayward Project, section 2.3.1, Intake Channel, page A-HAY-4, and Trego Project, section 2.2.1, Intake Channel, page A-TRE-3, include the height and width of the trashracks, but do not include the number of trashracks. Therefore, for both projects, please provide the number of trashracks. For each trashrack, please include the overall height, and width, clear spacing, bar width, and dimensions of the trashrack frame and internal supports, which are necessary to allow calculation of the flow area through the trashracks.

NSPW Response:

Exhibits A and E for the Hayward Project have been revised to describe only one trashrack and to include the requested information. The revised Hayward Exhibit A is included in **Appendix AIR-3** and the revised Hayward Exhibit E is included in **Appendix AIR-5**.

There are two trashracks at the Trego Project. The Trego Exhibit A and Exhibit E have been revised to include the requested information. The revised Trego Exhibit A is included in **Appendix AIR-4**. The revised Trego Exhibit E is included as **Appendix AIR-5**.

AIR Comment 3:

Hayward Project, section 7, Safe Management, Operation, and Maintenance, page A-HAY-6, and Trego Project, section 7, Safe Management, Operation, and Maintenance, page A-TRE-5, each state that Northern States Power Company (Northern States Power) has a robust Owners Dam Safety Program (Dam Safety Program), which was revised and filed on June 28, 2019. However, the referenced Dam Safety Program was filed by Xcel Energy and makes no reference to Northern States Power. Therefore, please revise the Dam Safety Program to include a clarifying statement that Xcel Energy's Dam Safety Program collectively ensures safety of dams for water projects operated by its subsidiaries and maintains compliance with Commission dam safety requirements.

NSPW Response:

Xcel Energy's Dam Safety Program will be revised to indicate that the plan applies to all of Xcel Energy's operating companies, including NSPW.

EXHIBIT A
Hayward Project

AIR Comment 4:

Section 2.3.1, Intake Channel, page A-HAY-4, states that the intake channel includes a steel bulkhead, but does not include any characteristics of the bulkhead. Therefore, please provide bulkhead characteristics including its height, width, sill elevation, location, and function.

NSPW Response:

The Hayward Exhibit A has been revised to include the requested information. The revised Hayward Exhibit A is included in **Appendix AIR-3**.

AIR Comment 5:

Exhibit E, section 4.8.3.1, Hayward Project Proposed Environmental Measures, page E-106, states that Northern States Power proposes to install and maintain portable restroom facilities at the Canoe Portage Takeout and Carry-In Access during the open water recreation season throughout the term of a subsequent license. However, Exhibit A, table A-3 does not list this proposed measure and its associated costs. Therefore, please file a revised Exhibit A including the proposed measure and its estimated costs.

In addition, Table A-3 states that Northern States Power would coordinate with the Wisconsin Department of Natural Resources (Wisconsin DNR) to obtain current invasive species signage for installation at the Canoe Portage put-in site. However, the capital and Operation & Maintenance (O&M) costs for this proposed measure are reported as $0.00. Please provide revised capital and O&M costs for this measure or explain why the measure would not result in any costs incurred by Northern States Power.

NSPW Response:

There are no capital costs associated with this environmental measure since WDNR provides invasive species signage free of charge. The only costs associated with this measure would be installation of the signs provided by WDNR. It is estimated that the O&M cost to install and annually maintain the signs would not exceed $500. Table A-3 of the Hayward Exhibit A and Table 6.3-1 of Exhibit E have been revised to reflect the O&M costs.

The revised Hayward Exhibit A is included in **Appendix AIR-3**. The Revised Exhibit E is included in **Appendix AIR-5**.

AIR Comment 6:

Exhibit E, section 5.8.3.1, Trego Project Proposed Environmental Measures, page E-209, states that Northern States Power proposes to continue to maintain portable restroom facilities at the North Tailwater Access / Canoe Portage during the open water recreation season throughout the term of any subsequent license. However, Table A-3 in Exhibit A lists the capital and O&M costs for this proposed measure as $0.00. Please provide revised capital and O&M costs for this measure or explain why the measure would not result in any costs incurred by Northern States Power. If new costs are identified, please file a revised Exhibit A incorporating the costs of this proposed measure.

NSPW Response:

There are no capital costs associated with continued placement of portable restroom facilities at the Trego North Tailwater site. The O&M cost for placement of the portable restroom facilities is estimated at $10,000 per year. Table A-3 in the Trego Exhibit A and Table 7.3-1 in Exhibit E have been revised to reflect the annual O&M costs for this environmental measure.

The revised Trego Exhibit A is included in **Appendix AIR-4**. The revised Exhibit E is included in **Appendix AIR-5**.

AIR Comment 7:

Please indicate whether the current target reservoir elevation of 1,034.9 feet National Geodetic Vertical Datum of 1929 (NGVD29), and / or upper and lower fluctuation limits are different from previous target reservoir elevations. If the project was operated with a target reservoir elevation that is different from the current target reservoir elevation of 1,034.9 feet NGVD29, please provide the previous target reservoir elevation, upper and lower fluctuation limits and date that the target reservoir elevation was changed. If there have been multiple previous target reservoir elevations, please provide each previous target reservoir elevation, upper and lower fluctuation limits and date that the target reservoir elevation was changed.

NSPW Response:

Article 401 of the June 2, 1994 Order Issuing License (FERC Accession No. 19940603-3046) states the following:

> *"Under normal operating conditions, the licensee shall maintain the elevation of the Trego impoundment at a target elevation of 1,034.9 feet msl, with fluctuation limited to 0.3 feet around the target elevation, or between elevations 1,034.6 and 1035.2 feet msl."*

The Trego Project has been operated in this manner throughout the entire term of the current license and NSPW is not proposing any changes.

EXHIBIT E
AQUATIC RESOURCES

AIR Comment 8:

Drawdowns can effecct (sic) *aquatic resources both upstream and downstream of the project dam. Therefore, if readily available, for both projects, please provide a history of long term and short term planned and emergency drawdowns including duration and magnitude.*

NSPW Response:

Hayward Project

Only one reservoir drawdown has been completed at the Hayward Project during the current license term. More specifically, a three-foot drawdown was completed in the spring of 2004 to allow the City of Hayward to conduct work on a water main project. The drawdown was used to lower the adjacent groundwater level, allowing water main construction to proceed without continual pumping and dewatering of the pipeline excavation corridor.

Trego Project

No reservoir drawdowns have been completed at the Trego Project during the current license term. However, two historic drawdowns were identified in NSPW's 1991 license application (FERC Accession No. 19911219-0283). An eleven-foot drawdown was completed in the fall of 1978 in order to conduct dam repairs. A three-foot drawdown was completed in the fall of 1988 for lake management purposes at the request of the Trego Lake District.

AIR Comment 9:

Section 3.2.2.2, Proposed Environmental Measures, states Northern States Power Company would develop an Operations and Management Plan to include deviation reporting and agency consultation requirements under two separate bullets. The section does not reference the Compliance Monitoring Plan listed in Table 7.3-1, Cost o/ Environmental Measures. Please clarify if these are two different plans. In addition, Table 6.3-1 and Table 7.3-1, Cost of Environmental Measures, include measures labeled as Operation Monitoring Plan and Compliance Monitoring plan, respectively. The measures are both described as including "deviation reporting and agency consultation requirements". Please clarify if these plans are one in the same and edit the wording of these measures accordingly for consistency. Sufficient detail to support the cost should also be provided in the corresponding proposed environmental measures section for each project.

NSPW Response:

There is only one plan being proposed. To clarify this issue, Exhibit E has been revised to indicate that NSPW will develop an Operations and Compliance Monitoring Plan. The revised Exhibit E is included in **Appendix AIR-5**.

AIR Comment 10:

Section 4.5.3, Hayward Project Proposed Environmental Measures, states Northern States Power would develop a Compliance Monitoring Plan for the Hayward Project. Please provide plan details, including equipment plans for monitoring and a detailed schedule for installation and operating proposed equipment, Additionally, please include the cost associated with the plan in Table 6.3-1 to include: (1) all costs of the purchase and installation of monitoring equipment; and (2) the estimated annual operation and maintenance expenses provided for this plan, including all costs associated with maintaining and calibrating this monitoring equipment. If these costs are not included in the estimated capital and O&M costs provided in Exhibit A, section 13, please provide these costs.

NSPW Response:

As noted above in the response to AIR Comment 9, NSPW has revised Exhibit E to indicate that it is developing an Operations and Compliance Monitoring Plan for the Project. The Dam Safety Surveillance Monitoring Plan, filed on March 23, 2020 (FERC Accession No. 20200323-5099), details the monitoring equipment utilized at the Hayward Project. A headwater gage monitors the reservoir and tailwater elevations. The headwater gage is a pressure transducer and data is accessible through a telephone line, but it is not recorded. The digital data can be monitored by personnel at the St. Croix Falls Hydro plant and Wissota Generation Control Center as well as the Hayward powerhouse. The headwater gage is located in a well upstream of the plant on the right embankment. There are also staff gages for monitoring headwater and tailwater elevations that can be used to confirm and calibrate the electronic gage. No new monitoring equipment has been proposed as part of the license application.

The capital and O&M costs identified in Table 6.3-1 of Exhibit E and Table A-3 of the Hayward Exhibit A are correct. The capital costs include replacement of any existing equipment that may be near end of life and the cost to develop the plan. The O&M costs listed include the cost of maintaining and calibrating the monitoring equipment.

AIR Comment 11:

Section 5.5.3, Trego Project Proposed Environmental Measures, states Northern States Power would develop a Compliance Monitoring Plan for the Trego Project. Please provide details, including equipment plans for monitoring and a detailed schedule for installation and operating proposed equipment. Additionally, please clarify the estimated capital costs provided in Table 7.3-1 for this plan ($50,000) include all costs associated the purchase and installation of this monitoring equipment; and (2) the estimated annual operation and maintenance expenses provided for this plan ($5,000) include all costs associated with maintaining and calibrating this monitoring equipment. If these costs are not included in the estimated capital and operation and maintenance costs provided in Exhibit A, section 13, please provide these costs.

NSPW Response:

As noted above in the response to AIR Comment 9, NSPW has revised Exhibit E to indicate that it is developing an Operations and Compliance Monitoring Plan for the Project. The Supporting Technical Information Document (FERC Accession No. 20220331-5430) filed on March 31, 2022 details the existing monitoring equipment utilized at the Trego Project. The headwater and tailwater gages monitor the reservoir and tailwater elevations. Each gage consists of a pressure transducer and Programmable Logic Controller (PLC). Digital data is relayed to a Supervisory Control and Data Acquisition (SCADA) system where it is monitored by operators at the Wissota Generation Control Center and at the Trego powerhouse. Staff gages are used to verify and calibrate the electronic gages. The headwater gauge is located on the south spillway abutment. The tailwater gage is located on the north powerhouse training wall. No new monitoring equipment has been proposed as part of the license application.

The capital and O&M costs identified in Table 7.3-1 of Exhibit E and Table A-3 of the Trego Exhibit A are correct. The capital costs include replacement of any existing equipment that may be near end of life and the cost to develop the plan. The O&M costs listed include the cost of maintaining and calibrating the monitoring equipment.

The revised Trego Exhibit A is included in **Appendix AIR-4**. The revised Exhibit E is included in **Appendix AIR-5**.

EXHIBIT E
TERRESTRIAL RESOURCES

AIR Comment 12:

Section 4.5.1.5, Aquatic Invasive Species, states that Northern States Power implements annual monitoring on purple loosestrife at the Hayward Project. Please provide the annual purple loosestrife monitoring and treatment/removal reports for the duration of the records, including O&M as well as capital costs.

NSPW Response:

The original purple loosestrife monitoring plan was developed internally. Therefore, the capital cost to develop the plan is unknown. No other capital costs are associated with the plan. The O&M cost in 2023 to complete the survey was $4,400. Monitoring reports dating back to 2000 are summarized in **Table 1**

below. A review of the FERC E-library did not identify that the 2018 report had been efiled. A copy of the 2018 report is included in **Appendix AIR-6**.

Table 1 Hayward Project Purple Loosestrife Monitoring Reports

Year	FERC Accession No.
2000	20000912-0136
2001	20011012-0333
2002	20021002-0366
2003	20031008-0122
2004	20041005-0151
2005	20050926-0331
2006	20061023-0098
2007	20070917-0098
2008	20081007-0193
2009	20090929-5016
2010	20100916-5028
2011	20110921-5065
2012	20121003-5022
2013	20131023-5016
2014	20141003-5194
2015	20151005-5138
2016	20160929-5088
2017	20171005-5024
2018	Not in E-library
2019	20191001-5328
2020	20200930-5024
2021	20210930-5120
2022	20221017-5146
2023	20231130-5138

AIR Comment 13:

Section 4.5.3, Hayward Project Proposed Environmental Measures, states that to mitigate the spread of invasive species, Northern States Power would develop a rapid response invasive species monitoring plan to monitor for the introduction of new invasive species and limit the dispersal of established species. This plan would replace the existing annual purple loosestrife monitoring that is currently conducted at the project. The plan would incorporate monitoring for both aquatic and terrestrial invasive species via biennial surveys. Please provide details, if readily available for: (1) recreational activities and / or; (2) rare, threatened or endangered species that are affected by the increase of specific aquatic invasive plants (to be listed;) and (3) O&M as well as capital costs of the proposed plan.

NSPW Response:

An increase in aquatic invasive plants, or establishment of new aquatic invasive plants, could potentially negatively impact recreational navigation in the future. There is no readily available information that an increase in any specific aquatic invasive species would affect rare, threatened, or endangered species at the Project.

The O&M and capital costs of the proposed plan are identified in Table A-3 of the Hayward Exhibit A and in Table 6.3-1 of Exhibit E. There is an estimated capital cost of $40,000 to develop the plan and a biennial O&M cost of $30,000.

AIR Comment 14:

Section 4.7.1.2, Bald Eagle, states that two bald eagle nests have been recorded within the Hayward Project vicinity. Northern States Power further states that vegetation management and construction activities that occur between January 15 and July 30 within 660 feet of an active bald eagle nest may affect the species. Please provide the location of the bald eagle nests located within the project vicinity, including if they are located within the project boundary. Please also provide details including the: (1) measures to be implemented; (2) location(s) of mitigation; 3) timeframe during which the proposed mitigation would occur; and costs (capital and O&M) for any measures proposed for the protection of bald eagles at the project, if applicable.

NSPW Response:

Maps depicting the location of the two bald eagle nests in the Hayward Project vicinity are included in **Appendix AIR-7**. This appendix has been filed separately as a privileged document as the location information is not for public dissemination. Both nests are located within or immediately adjacent to the Project boundary. However, NSPW does not own any lands, nor does it maintain any recreation sites, within 660 feet of either nest.

Although no management activities are currently planned that could adversely impact bald eagles, NSPW is proposing to review all future vegetation management or ground disturbing activities to determine if the work is located within 660 feet of a known bald eagle nest. If so, work will be scheduled to occur outside of the eagle nesting season. The eagle nesting season extends from January 15 to July 30. If activities cannot be conducted outside of the eagle nesting season, NSPW will consult with USFWS for direction on how to proceed. Exhibit E has been revised to include this new environmental measure. This measure will not result in any new capital costs. The reviews are expected to cost approximately $1000 per year (O&M cost). Table A-3 of the Hayward Exhibit A and Table 6.3-1 of Exhibit E have been revised to include the capital and O&M costs for this measure.

The revised Hayward Exhibit A is included in **Appendix AIR-3**. The revised Exhibit E is included in **Appendix AIR-5**.

AIR Comment 15:

Section 5.5.2.1.1.1 Aquatic Vegetation, states that under the current license, Northern States Power implements a Vegetation Management Plan (approved on February 25, 1997) to address navigation concerns within the upper reservoir caused from dense growth of aquatic plants. The plan requires Northern States Power to reimburse Trego Lake District for annual mechanical harvesting activities to create navigation channels within the upper reservoir. Please provide the annual monitoring and treatment/removal reports for the duration of the records, including associated costs (O&M as well as capital costs).

NSPW Response:

There is no requirement to create annual monitoring or treatment reports in the Vegetation Management Plan. However, a summary of harvesting costs since the plan was implemented is included in **Table 2**. All costs identified are considered O&M costs.

Table 2 Summary of Reimbursement to TLD for Annual Vegetation Harvesting

Year	Reimbursement ($)	Contractor	Comments
1997	5,500	Aquatic Nuisance Control	
1998	5,500	Aquatic Nuisance Control	
1999	5,379	Aquatic Nuisance Control	
2000	5,850	Aquatic Nuisance Control	
2001	6,500	Aquatic Nuisance Control	
2002	5,000	Midwest Aquatics	
2003	5,000	Midwest Aquatics	
2004	5,000	Midwest Aquatics	
2005	5,000	Midwest Aquatics	
2006	5,000	Midwest Aquatics	
2007	5,250	Midwest Aquatics	
2008	5,250	Midwest Aquatics	
2009	5,500	Midwest Aquatics	
2010	5,500	Midwest Aquatics	
2011	5,800	Midwest Aquatics	
2012	6,000	Midwest Aquatics	
2013	6,000	Midwest Aquatics	
2014	1,800	Midwest Aquatics	No Harvesting Completed- Reimbursed Deposit
2015	6,000	Midwest Aquatics	
2016	6,000	Midwest Aquatics	
2017	6,000	Midwest Aquatics	
2018	1,890	Midwest Aquatics	No Harvesting Completed- Reimbursed Deposit
2019	8,000	Midwest Aquatics	
2020	2,500	TSB Lakefront Restoration and Diving, LLC	
2021	4,800	TSB Lakefront Restoration and Diving, LLC	
2022	2,640	TSB Lakefront Restoration and Diving, LLC	
2023	2,500	TSB Lakefront Restoration and Diving, LLC	
2024	9,531.50	TSB Lakefront Restoration and Diving, LLC	Reimbursement pending
TOTAL	**$144,690.50**		

There are no specific monitoring or treatment reports detailing the annual aquatic plant harvesting. However, NSPW's March 7, 2024 letter, Response to Agency Study Requests (FERC Accession No. 20240305-5078), included a summary of activities conducted under the current Vegetation Management

Plan. The letter also mentioned that recreation reports were submitted in 2003, 2009, and 2015. Those reports included a discussion of vegetation concerns and those discussions indicated that the vegetation harvesting was effective at maintaining the navigation lanes. The letter also noted that the Aquatic Management Plan for Trego Lake indicated that the harvesting was often not needed along the entire length of the navigation lanes to keep them open.

A review of the WDNR permit tracking system was completed by NSPW on July 24, 2024. The tracking system includes aquatic plant harvesting permits issued since 2018. **Table 3** below summarizes the number of acres of aquatic plant harvesting permitted each year by TLD within the navigation lanes for which they were reimbursed by NSPW. Copies of the harvest permits issued between 2018 and 2024 are included in **Appendix AIR-8**.

Table 3. Permits Issued to TLD from 2018 to 2024 per WDNR Permit Tracking System.

Year	Length x Width (ft)	Total Acres Harvested
2018	5,000 ft x 15 ft	1.72
2019	5,000 ft x 15 ft	1.72
2020	5,000 ft x 15 ft	1.72
2021	5,000 ft x 15 ft	1.72
2022	5,000 ft x 15 ft	1.72
2023	5,000 ft x 15 ft	1.72
2024	3,675 ft x 70 ft and 1,730 ft x 35 ft	7.3[1]

AIR Comment 16:

Section 4.7.1.2, Bald Eagle, states that bald eagle nests have been recorded within the Trego Project vicinity. Northern States Power further states that vegetation management and construction activities that occur between January 15 and July 30 within 660 feet of an active bald eagle nest may affect the species. Please provide the location of the bald eagle nests located within the project vicinity, including if they are located within the project boundary. Please also provide specific details, including the: (1) measures to be implemented; (2) location(s) of mitigation; (3) timeframe during which the proposed mitigation would occur; and (4) and costs (capital and O&M) for any measures proposed for the protection of bald eagles at the project, if applicable.

NSPW Response:

Maps showing the location of the two bald eagle nests in the Trego Project vicinity are included in **Appendix AIR-9**. The appendix has been filed separately as a privileged document since the nest location information is not for public dissemination. Both nest are located outside of the Project boundary. NSPW does not own any lands, nor does it maintain any recreation sites, within 660 feet of either nest.

Although no management activities are currently planned that could adversely impact bald eagles, NSPW is proposing to review all future vegetation management or ground disturbing activities to determine if the work is located within 660 feet of a known bald eagle nest. If so, work will be scheduled to occur outside of the eagle nesting season. The eagle nesting season extends from January 15 to July 30. If activities

[1] TLD conducted additional harvesting outside of the approved navigation lanes in addition to the acreage listed in Table 3.

cannot be conducted outside of the eagle nesting season, NSPW will consult with USFWS for direction on how to proceed. Exhibit E has been revised to include this new environmental measure. This measure will not result in any new capital costs. The reviews are expected to cost approximately $1,000 per year (O&M cost). Table A-3 of the Trego Exhibit A and Table 7.3-1 of Exhibit E have been revised to include the capital and O&M costs for this measure.

The revised Trego Exhibit A is included in **Appendix AIR-4**. The revised Exhibit E is included in **Appendix AIR-5**.

EXHIBIT E
THREATENED AND ENDANGERED RESOURCES

AIR Comment 17:
Section 4.7.3.1, Northern Long-eared Bat, states that Northern States Power would Follow Wisconsin Bat protection requirements to provide protection to any northern long eared bats within the project vicinity during routine recreation site maintenance. Northern States Power proposes to follow the applicable mitigation measures outlined in the Cave Bat Broad Incidental Take Permit / Authorization. However, there are no specific northern long eared bat measures provided. If proposing to follow or incorporate state and/or U.S. Fish and Wildlife Service's northern long eared bat protection measures into the bat protection measures, please provide a list the specific measures and any associated capital and O&M costs.

NSPW Response:
Exhibit E has been revised to include the following specific measures to protect the Northern Long-eared Bat and Tri-colored Bat at both Projects.

- NSPW will review all proposed ground disturbing and vegetation management activities to determine if work is within ¼ mile of a known NLEB or TCB hibernaculum or maternity roost tree. If so, NSPW will consult with USFWS to determine appropriate mitigation measures prior to conducting the activities.
- No vegetation management involving the removal of trees greater than three inches in diameter will be conducted between April 1 and October 31 unless the tree causes an immediate human health hazard.

There are no capital costs associated with these measures. O&M costs for reviewing ground disturbing and vegetation management activities are estimated at $1,000 per year for each Project.

The revised Exhibit E is included in **Appendix AIR-5**.

EXHIBIT E
RECREATION RESOURCES

AIR Comment 18:
Table 6.3-1, Estimated Capital and Additional O&M Costs for Proposed Environmental Measures at the Hayward Project, provides an O&M cost of $35,000 for conducting recreational site monitoring and preparing a report every six years. However, the associated footnote (#77) states that $25,000 is the cost per recreation monitoring event. Please correct this discrepancy

NSPW Response:
The footnote (now footnote #58 due to Exhibit E revisions) of Table 6.3-1 of Exhibit E has been revised to indicate that $35,000 is the cost per monitoring event.

The revised Exhibit E is included in **Appendix AIR-5**.

AIR Comment 19:
In section 4.8.1.4.6, Adequacy of Existing Facilities to Address Current and Future Demand, estimated total annual recreation use at the project is reported as 3,300 recreation days for the 2022 study period, which is an 83.9% decrease from the estimated total annual daytime use of 20,441 recreation days reported in the most recent Recreation Monitoring Report, filed March 31, 2021. Please provide an explanation for this decrease.

NSPW Response:
The 2022 recreation study utilized spot counts as identified in the Recreation Study Report (Appendix E-29). The spot counts did not account for winter use associated with the Birkebeiner ski race. In order to account for this use, NSPW revised Exhibit E to include 13,000 user days for this annual winter event. Therefore, the total annual estimated recreation use at the Project increased to 16,300 recreation days.

The revised Exhibit E is included in **Appendix AIR-5**.

AIR Comment 20:
In section 5.8.1.5, Adequacy of Recreation Facilities to Address Current and Future Demand, estimated total annual recreation use at the project is reported as 623 recreation days for the 2022 study period, which is a 99.2% decrease from the estimated total annual daytime use of 75,099 recreation days reported in the most recent Recreation Monitoring Report, filed March 31, 2021. Please provide an explanation for this decrease.

NSPW Response:
A review of the 2021 Recreation Report (Appendix E-47) showed that significant usage was identified at the NPS River Access Site (10,220 recreation days). This site was closed by NPS due to the reconstruction of the Highway 53 and Highway 63 interchange and will therefore not see any future use. This site is also located upstream of the area inundated by the Trego Dam and is proposed for removal from the current Project boundary. The 2021 report also noted use by “Outfitters” at 16,216 recreation

days and use at "All Controlled Sites" at 39,559 recreation days.[2] These two types of use were not captured during the 2022 Recreation Study spot counts. Therefore, Exhibit E was revised to include 55,264 recreation days for the open water recreation season and 506 recreation days for the winter recreation season. This resulted in the total estimated annual recreation increasing to 56,393 recreation days.

The revised Exhibit E is included in **Appendix AIR-5**.

AIR Comment 21:

Section 5.8, Trego Project Recreation Resources, includes two non-project recreation sites in the description of existing recreation resources: (1) Town of Trego Park Boat Landing; and (2) Town of Trego Boat Landing. However, it is unclear if these sites or portions of these sites are located within the current and proposed project boundaries. Therefore, please state whether these sites or portions of these sites are located within the current project boundary and the proposed project boundary.

NSPW Response:

Figure 1 shows the Town of Trego Park Boat Landing in relation to the current and proposed boundaries. The entire recreation site is located outside of the proposed Project boundary. The portion of the site's concrete boat ramp extending into the water is assumed to be located within the current boundary.[3] The parking area is outside of the current boundary.

Figure 2 shows the Town of Trego Boat Landing in relation to the current and proposed boundaries. The portion of the concrete boat ramp and dock/pier extending into the water are located within both the current and proposed boundaries. The parking area is located outside of both boundaries.

[2] All Controlled Sites are defined as resorts, hotels, and campgrounds.
[3] While the current boundary line on the map does not show the boundary extending to the shoreline in this location, that is due to mapping precision. It is assumed that the current boundary includes all areas inundated and therefore includes the portion of the concrete boat ramp below the water line within the current boundary.

Figure 1 Town of Trego Park Boat Landing

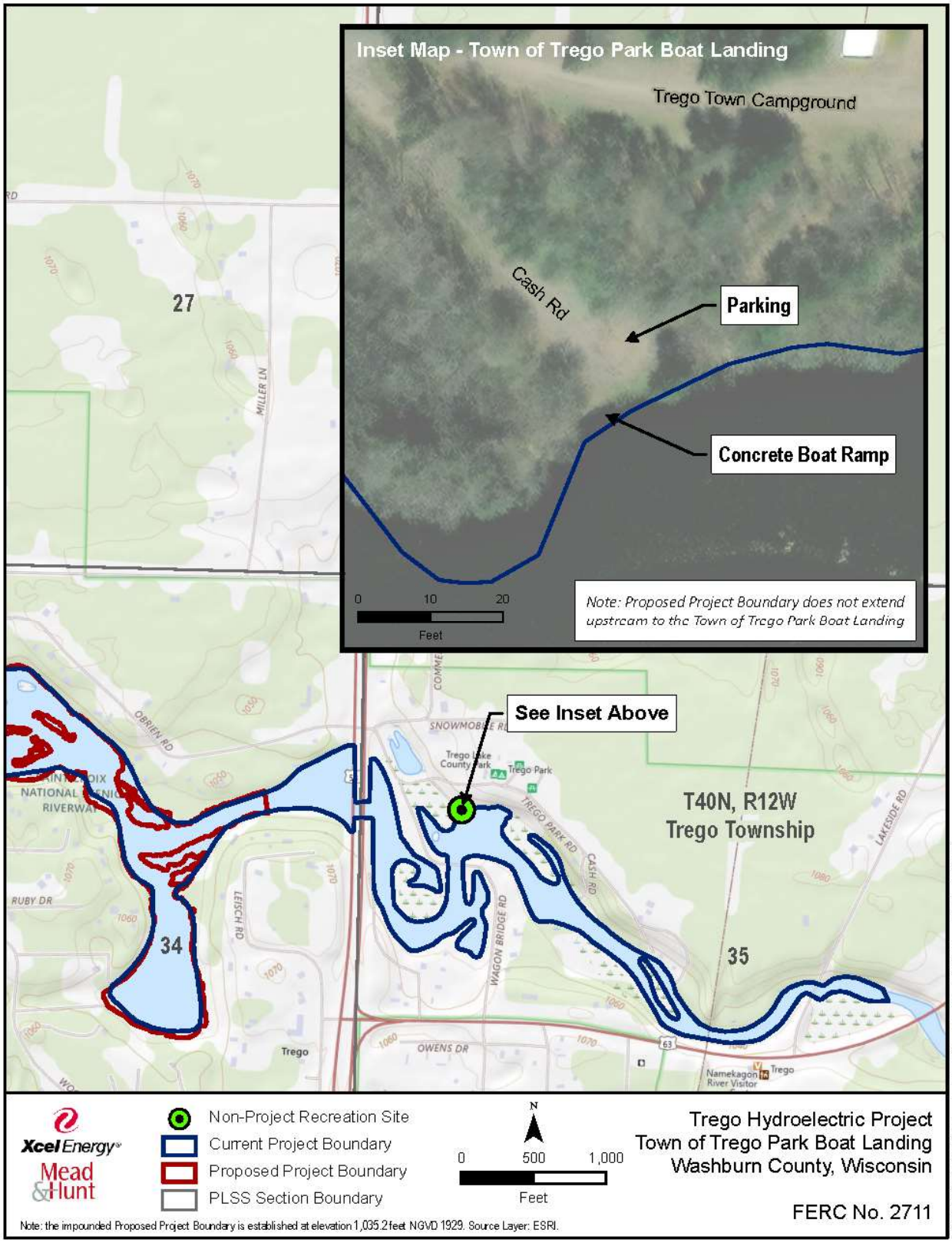
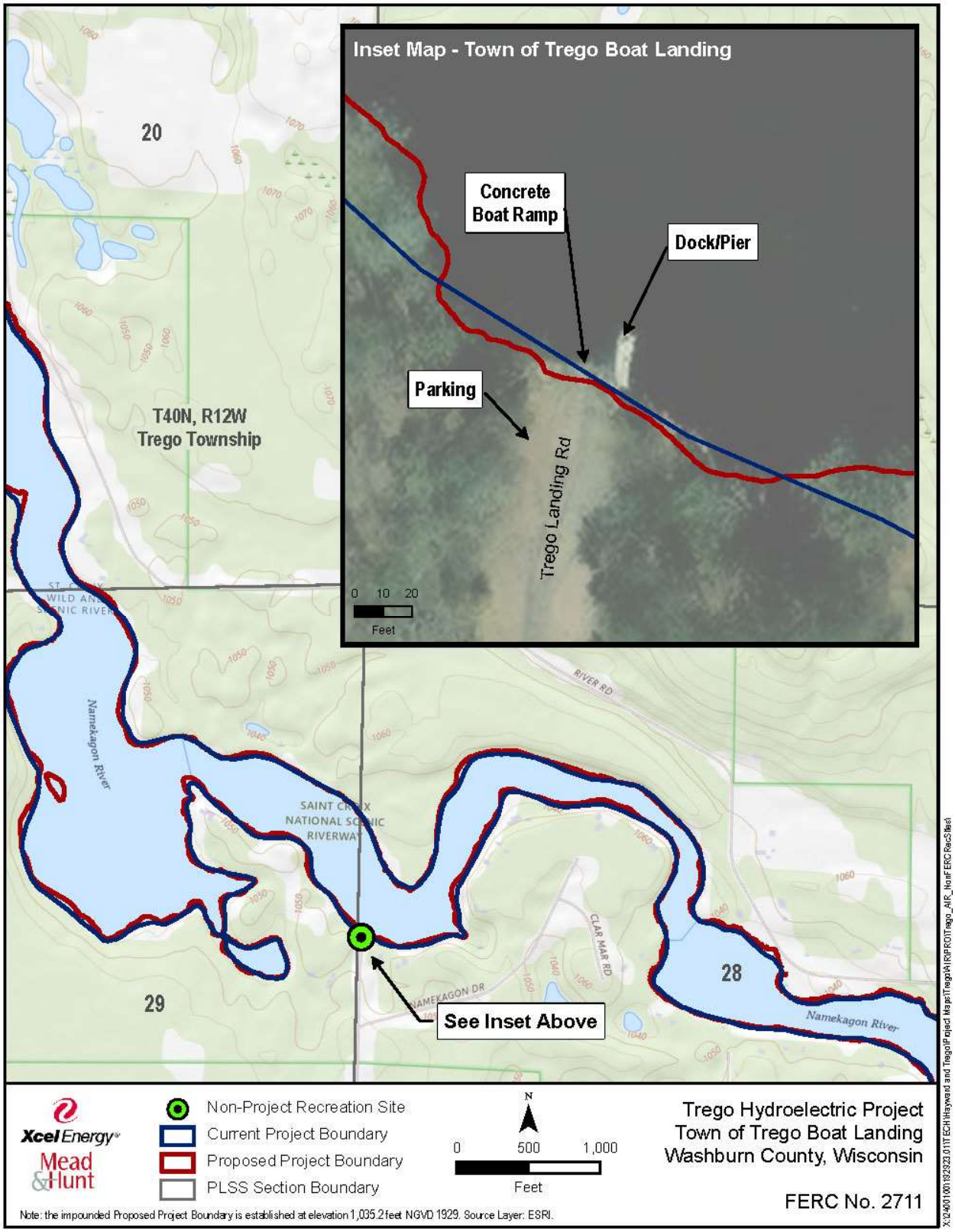


Figure 2 Town of Trego Boat Landing



AIR Comment 22:

On February 25, 1997, Commission staff issued an order approving a Vegetation Management Plan for the Trego Project.' The order requires annual harvesting of curly- leaf pondweed within a series of designated navigational channels and alleys to maintain public recreational access in the reservoir. The order acknowledges Northern States Power's intention to donate appropriate funding to the Trego Lake District for administering the annual harvesting. However, the order states that Northern States Power is ultimately responsible for complying with the plan and that appropriate agreements should be made to ensure that harvesting is consistent with the requirements of the plan.

Upon review of the proposed measures in the license application, it is unclear if Northern States Power intends to continue providing for public recreational access in the upper portion of the reservoir. Northern States Power does not propose to continue or redevelop the Vegetation Management Plan. Rather, Northern States Power proposes to make a one-time payment of $150,000 to the Trego Lake District to mitigate the adverse effects of invasive species on navigation in the upper reservoir. The Commission's Policy Statement on Hydropower Licensing Settlements 2 states that measures must be consistent with the law and within the Commission's jurisdiction to enforce. Because the Commission has jurisdiction only over its licensees, it cannot enforce a license condition to the extent that it places a requirement on a non-licensee (e.g., Trego Lake District).

Although a licensee may hire or cooperate with others to perform a required measure, the licensee is ultimately responsible for compliance. In addition, if a measure is required in any license, the licensee is responsible for performing the measure, even if costs required to perform the measure exceed a proposed or agreed-upon limit. Please state whether Northern States Power intends to continue to ensure adequate public recreational access and navigability in the upper portion of the reservoir and, if so, describe in detail any proposed measure(s) designed to accomplish this, including the estimated capital and annual O&M costs.

NSPW Response:

NSPW will continue to ensure adequate public recreational access and navigability in the upper portion of the reservoir by maintaining navigation lanes as described in the 2024 Trego Vegetation Harvesting Study Report. NSPW has revised Exhibit E to remove the reference to a one-time payment to TLD for aquatic vegetation management activities. Instead, NSPW now proposes to maintain navigation lanes to the upper portion of the reservoir to provide boat access to the Namekagon River where it enters the Trego Flowage and to the mouth of Potato Creek. NSPW has revised Table A-3 of the Trego Exhibit A and Table 7.3-1 of Exhibit E to include $10,000 dollars annually as an O&M expense for this measure. There are no capital costs for this measure.

NSPW has included a revised Exhibit A for Trego in **Appendix AIR-4** and a revised Exhibit E in **Appendix AIR-5**.

EXHIBIT E
PROJECT BOUNDARIES

AIR Comment 23:
Proposed project boundary data for both projects were filed concurrently with the license applications in a geo-referenced electronic format (e.g., shapefiles). However, current boundary data were not provided. So that staff can assess the proposed changes to the project boundaries, please file the current project boundary data for both projects in a geo-referenced electronic format.

NSPW Response:
The current boundary shapefiles for both the Hayward and Trego Project are included in a georeferenced electronic format as part of this filing.

EXHIBIT E
CULTURAL RESOURCES
Hayward Project

AIR Comment 24:
Section 4.11.1.3, Archaeological Properties, states that a cultural resource study was completed as part of the 1993 Programmatic Agreement. The provided cultural resource study only includes monitoring of known archaeological sites. Provide as privileged all previous applicable cultural resources studies of the area of potential effect.

NSPW Response:
The cultural resource study included more than just the monitoring of known archaeological sites. As noted in Section 4.11.1.3 of Exhibit E, "*A Cultural Resources Study, which supplemented the literature review, involved a survey of the entire shoreline by boat to look for areas of erosion where artifacts may be exposed. The shoreline survey also included an inspection of the seven previously identified sites whose boundaries overlapped or were mapped close to the shoreline*."

The 1993 Programmatic Agreement, included in Appendix E-51 of Exhibit E, identifies the measures required to be conducted during relicensing under Section I.B regarding the identification of archaeological properties. It states the following:

> *"Licensees will survey Project shoreline areas within their APEs, except that no Licensee will be required by the stipulations of this Programmatic Agreement to survey shoreline areas within another Licensee's Project boundary, to identify archaeological sites currently subject to erosion, in accordance with the Wisconsin Archeological Survey Guidelines For Conservation Archaeology in Wisconsin; prepare reports based on the results of surveys; and submit these reports, in duplicate copies, along with all appropriate documentation to the Wisconsin SHPO for review and comment. All supporting photographic documentation will be submitted as original prints."*

NSPW reviewed the WHS Database regarding other field studies completed within the Hayward Project APE. Copies of abstracts for each study and study reports, and any SHPO correspondence regarding the study reports, have been included in **Appendix AIR-10** where available. **Table 4** details the information available for the Hayward Project.

Table 4. Archaeological Study Information within the Hayward APE.

1987 NRHP Registration Form
1991 Archaeological Survey of the Hayward Hydroelectric Project-WHS No. 90-0001
1992 Evaluation of 47 SY-121 Submerged Pilings in Hayward Lake-WHS No. 90-0001
1997 Hayward Annual Report and Shoreline Monitoring Report
1998 SHPO Response to 1998 Shoreline Survey Results
2003 Shoreline Monitoring Report
2013 Shoreline Monitoring Report
2024 Hayward WHS Database No. 90-0001 Abstract-Reservoir Survey
2024 Hayward WHS Database No. 90-0001 Abstract-Submerged Pilings
2024 Hayward WHS Database No. 92-5046 Abstract-Hwy 27 Bridge Replacement
2024 Hayward WHS Database No. 95-0867 Abstract-City Water Main

AIR Comment 25:

Appendix E-1, Study Report Consultation, contains a partial record of the Wisconsin State Historic Preservation Officer (Wisconsin SHPO) and tribal consultation. Please provide a record of consultation beyond the Wisconsin SHPO comments pertaining to the 1992 Programmatic Agreement compliance. Provide a complete Wisconsin SHPO consultation record for all applicable cultural resource studies completed in the area of potential effect (APE).

NSPW Response:

Contrary to the Commission's Comment 25, the Hayward Project is subject to the 1993 Programmatic Agreement (PA). The 1992 Programmatic Agreement applies only to the Trego Project. As noted above in NSPW's response to the Commission's Comment 24, NSPW conducted the required pre-licensing surveys as outlined in the 1993 Programmatic Agreement and provided documentation of its consultation with the SHPO regarding these studies. NSPW provided its complete relicensing consultation record in Appendix E-1 of Exhibit E. **Table 5** below details the consultation between NSPW, the SHPO, and the tribes included in the stakeholder distribution list, in addition to the consultation regarding the study results.

Table 5 SHPO and Tribal Consultation for the Hayward and Trego Projects

Date	Consultation		Item
	From	To	
7/22/2020	NSPW	SHPO and Tribes	PAD Questionnaire
11/27/2020	NSPW	SHPO and Tribes	NOI, PAD, & TLP Request
2/22/2021	NSPW	SHPO and Tribes	JAM Notification
3/8/2021	NSPW	SHPO	Email Invitation to JAM
5/27/2021	NSPW	SHPO and Tribes	Site Visit Notification
1/24/2023	SHPO	NSPW	Acceptance for Hayward Filing
2/1/2023	SHPO	NSPW	Acceptance for Trego Filing

Date	Consultation		Item
	From	To	
3/28/2023	SHPO	Mead & Hunt	Concurrence with study report
3/28/2023	Mead & Hunt	SHPO	Concurrence with Hayward Archaeological Report
3/28/2023	SHPO	Mead & Hunt and NSPW	Concurrence with Trego Archeological Report
3/28/2023	SHPO	Mead & Hunt and NSPW	Correction to Concurrence with Hayward Archaeological Report
6/29/2023	NSPW	SHPO and Tribes	DLA
11/30/2023	NSPW	SHPO and Tribes	FLA

EXHIBIT E
CULTURAL RESOURCES
Trego Project

AIR Comment 26:
Section 5.11.1.3, Archaeological Properties, states that a cultural resource study was completed as part of the 1993 Programmatic Agreement. The provided cultural resource study only includes monitoring of known archaeological sites. Provide as privileged all previous applicable cultural resources studies of the area of potential effect.

NSPW Response:
The cultural resource study included more than just the monitoring of known archaeological sites. As noted in Section 5.11.1.3 of Exhibit E, "*The Cultural Resources Study included an inspection of the entire shoreline by boat for areas of erosion where artifacts may be exposed, as well as a review of each of the seven previously identified sites whose boundaries overlapped or were mapped close to the shoreline*."

The 1993 Programmatic Agreement, included in Appendix E-51 of Exhibit E, identifies the measures required to be conducted during relicensing under Section I.B regarding the identification of archaeological properties. It states the following:

> *"Licensees will survey Project shoreline areas within their APEs, except that no Licensee will be required by the stipulations of this Programmatic Agreement to survey shoreline areas within another Licensee's Project boundary, to identify archaeological sites currently subject to erosion, in accordance with the Wisconsin Archeological Survey Guidelines For Conservation Archaeology in Wisconsin; prepare reports based on the results of surveys; and submit these reports, in duplicate copies, along with all appropriate documentation to the Wisconsin SHPO for review and comment. All supporting photographic documentation will be submitted as original prints."*

NSPW reviewed the WHS Database regarding other field studies completed within the Trego Project APE. Copies of abstracts for each study and study reports, and any SHPO correspondence regarding the study reports, have been included in **Appendix AIR-11** where available. **Table 6** details the information available for the Trego Project.

Table 6. Archaeological Survey Information for the Trego Project.

1996 Trego NRHP Determination
1998 Shoreline Monitoring Report
1998 SHPO Response to 1998 Shoreline Survey Results
2003 Shoreline Monitoring Report
2013 Shoreline Monitoring Report
2024 Trego WHS Database No. 89-0517 Abstract-Report on Cultural Resource Investigation Along the Trego Reservoir Shoreline, Washburn County, Wisconsin
2024 Trego WHS Database No. 89-0517 Abstract-Letter Report of Survey: Addendum to Report on Cultural Resource Investigation Along the Trego Reservoir Shoreline, Washburn County, Wisconsin

AIR Comment 27:

Appendix E-1, Study Report Consultation, contains a partial record of the Wisconsin State Historic Preservation Officer (Wisconsin SHPO) and tribal consultation. Please provide a record of consultation beyond the Wisconsin SHPO comments pertaining to the 1992 Programmatic compliance. Provide a complete Wisconsin SHPO consultation record for all applicable cultural resource studies completed in the APE.

NSPW Response:

NSPW conducted the required pre-licensing surveys identified in the 1993 Programmatic Agreement and provided record of its consultation with the SHPO regarding these studies. NSPW provided its complete relicensing consultation record in Appendix E-1 of Exhibit E. **Table 7** below details the consultation between NSPW, the SHPO, and the tribes included in the stakeholder distribution list, in addition to consultation regarding the study results.

Table 7. SHPO and Tribal Consultation for the Hayward and Trego Projects

Date	Consultation		Item
	From	To	
7/22/2020	NSPW	SHPO and Tribes	PAD Questionnaire
11/27/2020	NSPW	SHPO and Tribes	NOI, PAD, & TLP Request
2/22/2021	NSPW	SHPO and Tribes	JAM Notification
3/8/2021	NSPW	SHPO	Email Invitation to JAM
5/27/2021	NSPW	SHPO and Tribes	Site Visit Notification
1/24/2023	SHPO	NSPW	Acceptance for Hayward Filing
2/1/2023	SHPO	NSPW	Acceptance for Trego Filing
3/28/2023	SHPO	Mead & Hunt	Concurrence with study report
3/28/2023	Mead & Hunt	SHPO	Concurrence with Hayward Archaeological Report
3/28/2023	SHPO	Mead & Hunt and NSPW	Concurrence with Trego Archeological Report
3/28/2023	SHPO	Mead & Hunt and NSPW	Correction to Concurrence with Hayward Archaeological Report
6/29/2023	NSPW	SHPO and Tribes	DLA
11/30/2023	NSPW	SHPO and Tribes	FLA

EXHIBIT F
Hayward Project

AIR Comment 28:
Exhibit F of the current license shows a Tainter gate in the intake channel downstream of the trashrack. However, the license application, Sheet 1, Section B-B Powerhouse with Intake Channel, does not show a Tainter gate in the intake channel. Please state whether this Tainter gate is still present and, if it is still present, please show it in Section B-B Powerhouse with Intake Channel. If the Tainter gate was removed, please indicate when it was removed and if it was replaced with another gate, which should be shown in Section B-B Powerhouse with Intake Channel.

NSPW Response:
The Tainter gate was removed in 1986 and was not replaced. A steel bulkhead is now used to dewater the intake channel by placing it into the bulkhead slots located upstream of the trash rack.

AIR Comment 29:
Sheet 1, Section B-B Powerhouse with Intake Channel, does not include relevant trashrack information. Therefore, please label the trashrack to include its top elevation and angle of inclination from the vertical.

NSPW Response:
Section B-B of Exhibit F has been revised to show the top of trashrack elevation and its angle of inclination from vertical. Exhibit F is included in **Appendix AIR-1**.

AIR Comment 30:
Sheet 1, Section D-D Concrete Overflow Spillway and Left Embankment, shows a flashboard groove, which is labeled "Sloping Flashboard Groove." Exhibit A, Concrete Overflow Spillway, page A-HAY-3, does not mention the use of flashboards at the project. Please revise Exhibits A and F to provide a full understanding of the sloping flashboard groove shown on sheet 1.

NSPW Response:
Flashboards were previously used at the spillway before being replaced in 2012 by the bulkhead gates and slide gates. The grooves remain, but no longer house flashboards.

AIR Comment 31:
Sheet 1, Section D-D Concrete Overflow Spillway and Left Embankment, shows a line that extends from the spillway crest to the monorail pole. However, it is not clear what this line represents. Therefore, please label this line to provide a full understanding as to what the line represents.

NSPW Response:
The sloping line below the top of the pier shows the line of transition from the vertical face of the pier to the sloping face associated with the pier nose. This line has been deleted to avoid confusion. The sloping line above the top of the pier is bracing for the base of the monorail pole and Section D-D of Exhibit F has been revised to label the monorail pole brace. Exhibit F is included in **Appendix AIR-1**.

AIR Comment 32:
Section E-E Unit 2 Intake, Flume, Draft Tube Bay, does not include relevant trashrack information. Therefore, please label the trashrack, and its top elevation and angle of inclination from the vertical.

NSPW Response:
This comment applies to the Trego Project and is the same as AIR Comment 36. Please see the response to AIR Comment 36 below.

AIR Comment 33:
Sheet 2, Powerhouse, shows equipment northeast of the turbine. Please identify and label this equipment.

NSPW Response:
The equipment shown northeast of the generator is the governor and the hydraulic pump and accumulator used to power the governor. Sheet 2 of Exhibit F has been revised to label this equipment. Exhibit F is included in **Appendix AIR-1**.

AIR Comment 34:
Please provide a sectional view of the left earthen embankment to show the crest elevation, top elevations of all concrete retaining walls and steel sheet pilings, elevation of the tail water and the elevation of maximum pool level.

NSPW Response:
Exhibit F has been revised to include Section E-E, which shows a sectional view of the left embankment and includes top elevations of the concrete retaining wall segments, the ground profile, and the elevation of maximum pool and normal tailwater. Exhibit F is included in **Appendix AIR-1**.

EXHIBIT F
Trego Project

AIR Comment 35:
Section D-D Sluice Spillway, does not include the relevant Obermeyer gate elevations. Therefore, please label the crest elevation of the sluice spillway upstream of the Obermeyer gates.
NSPW Response:
Section D-D of Exhibit F has been revised to label the crest elevation of the sluice spillway upstream of the Obermeyer gate. Exhibit F is included in **Appendix AIR-2.**
AIR Comment 36:
Sheet 2, Section E-E Unit 2 Intake, Flume, Draft Tube Bay, does not include relevant trashrack information. Therefore, please label the trashrack, and its top elevation and angle of inclination from the vertical.

NSPW Response:
Section E-E of Exhibit F has been revised to label the trashrack, top of trashrack elevation, and its angle

of inclination from vertical. Exhibit F is included in **Appendix AIR-2.**

AIR Comment 37:
It is unclear from sheet 2, Section E-E Unit 2 Intake, Flume, Draft Tube Bay, how the intake structure would be dewatered to allow inspection or maintenance of the turbine bay. Therefore, please describe how the intake structure would be dewatered to allow inspection or maintenance of the turbine bay, which may include revision of Exhibit F.

NSPW Response:
There is a bulkhead slot near the downstream end of the intake deck. Stoplogs or bulkheads would be inserted into the bulkhead slot to dewater the flume to allow inspection or maintenance of the turbine bay. Section E-E of Exhibit F has been revised to label the bulkhead slot. Exhibit F is included in **Appendix AIR-2***.xxx*

AIR Comment 38:
Sheet 3, Powerhouse Generator Floor Plan, does not provide the dimensions of the powerhouse. Therefore, please provide the length and width of the powerhouse structure.

NSPW Response:
Sheet 3, Powerhouse Generator Floor Plan of Exhibit F has been revised to show the width of the powerhouse structure. The length of the powerhouse structure was already shown. Exhibit F is included in **Appendix AIR-2.**

AIR Comment 39:
It is our understanding that a topographic survey would be conducted in the spring of 2024 to verify existing embankment cross-sectional geometry. If the results of the topographic survey invalidate information contained in either or both Exhibits A and F, please provide the updated information obtained from the survey on all descriptions and drawings.

NSPW Response:
We have reviewed the topographic mapping developed from the 2024 survey and found that the existing embankment cross-sectional geometry shown in Exhibit F agrees with the topographic mapping from the 2024 survey.

SUPPORTING DESIGN REPORT:
Hayward Project

AIR Comment 40:
Please revise all stability analyses to consider the additional 0.5-foot of reservoir head as a loading condition.

NSPW Response:
NSPW is no longer proposing to temporarily deviate from the licensed maximum reservoir elevation to overtop the gates to remove ice. Therefore, the revised stability analyses are unnecessary. Accordingly, NSPW has revised the Hayward Exhibit A and Exhibit E eliminating the proposed additional 0.5 feet of

reservoir head. The revised Hayward Exhibit A is included in **Appendix AIR-3**. The revised Exhibit E is included in **Appendix AIR-5**.

AIR Comment 41:

If the proposed temporary 0.5-foot in reservoir levels would affect the Inflow Design Flood maximum water level, or have any effect on upstream and / or downstream flooding, please perform a new analysis and provide a summary of the model results and a copy of all input and output files used in the analyses.

NSPW Response:

NSPW is no longer proposing to temporarily deviate from the licensed maximum reservoir elevation to overtop the gates to remove ice. Therefore, the analyses are unnecessary. Accordingly, NSPW has revised the Hayward Exhibit A and Exhibit E eliminating the proposed additional 0.5 feet of reservoir head. The revised Hayward Exhibit A is included in **Appendix AIR-3**. The revised Exhibit E is included in **Appendix AIR-5**.

AIR Comment 42:

Please revise the spillway sliding stability analyses and results based on the load cases: (1) normal; (2) flood; and (3) normal plus ice loading conditions, as described in Chapter 3 of the Engineering Guidelines for the Evaluation of Hydropower Projects.

NSPW Response:

NSPW is currently in the process of completing the sliding stability analyses. The analyses will be completed and the Supporting Design Report will be updated by December 31, 2024.

AIR Comment 43:

The Supporting Design Report should reference the 2022 Subsurface Investigation Report, including boring logs and laboratory testing results. The material properties and shear strength parameters used in the current analyses should be verified based on the results of the boring program. If the material properties and shear strength parameters are different, slope stability calculations should be revised for the middle and right embankment. The loading conditions for the slope stability analyses should follow Chapter 4 of the Engineering Guidelines for the Evaluation of Hydropower Projects.

NSPW Response:

The borings from the Left Embankment testing did not include shear strength and would not provide information to evaluate the middle and right embankments. A slope stability analysis was performed in 2016 for the Middle and Right Embankment. Appendix B2 in the Support Design Report contains the analysis report.

AIR Comment 44:

The Supporting Design Report should include slope stability model results for the left embankment.

NSPW Response:
As stated in Section 4.3.1 of the Supporting Design Report, the left embankment has not be evaluated. The evaluation has not been completed as the Right Earth Embankment is believed to be the most critical in terms of being the most likely to fail. It has been determined that a slope stability model is not needed at this time.

AIR Comment 45:
In Section 2.2 of the Supporting Design Report, please provide the most recent seismic hazard maps and include the assumed seismic site class based on the site conditions.

NSPW Response:
An updated Supporting Design Report will be submitted by December 31, 2024.

SUPPORTING DESIGN REPORT
Trego Project

AIR Comment 46:
It is our understanding that there is an ongoing seepage investigation and additional investigation to verify slope stability calculations (including assumptions and cross- section(s) geometry) and factors of safety under all loading conditions, to include the inflow design flood, if applicable, for the left and right embankments. The stability of the slopes would need to be verified under the 0.5-foot temporary rise proposed and included in the revised Stability Calculations submittal.

NSPW Response:
NSPW is no longer proposing to temporarily deviate from the licensed maximum reservoir elevation to overtop the gates to remove ice. Therefore, the analyses are unnecessary. Accordingly, NSPW has revised the Trego Exhibit A and Exhibit E eliminating the proposed additional 0.5 feet of reservoir head. The revised Trego Exhibit A is included in **Appendix AIR-4**. The revised Exhibit E is included in **Appendix AIR-5**.

Should you wish to access the information provided in this submittal, it is posted at the following website: https://hydrorelicensing.com/saxon/. Should you have any questions, please contact Matthew Miller at 715-737-1353 or matthew.j.miller@xcelenergy.com.

Sincerely,

Scott Crotty Digitally signed by Scott Crotty Date: 2024.08.12 15:54:27 -05'00'

Scott A. Crotty
Senior Hydro Operations Manager

Enclosure

CC: Stakeholder List