

Michigan Department of Environment, Great Lakes, and Energy
New Certification under Section 401 of
the Federal Clean Water Act

In the matter of: Northern States Power Company-Wisconsin
Saxon Falls and Superior Falls Hydroelectric Projects
15462 North Superior Road
Ironwood, Michigan 49855
Federal Energy Regulatory Commission Project Numbers P-2589
and P-2610

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) certifies that the Saxon Falls and Superior Falls Hydroelectric Projects located on the Montreal River in Gogebic County will comply with the Michigan Water Quality Standards (WQS) provided the conditions set forth in this Water Quality Certification (Certification) are met. This new Certification is issued to Northern States Power Company-Wisconsin under Section 401(a) of the federal Clean Water Act based on their request letter of May 19, 2026, and other information contained in the official files of EGLE, Water Resources Division (WRD). Fish passage and turbine mortality issues are not addressed by this Certification and will be evaluated during negotiations under Section 10(j) of the federal Power Act (Title 16 of the United States Code (U.S.C.), Sections (§) 791a-825r).

Definitions

Term	Definition
Bandwidth	The permitted range of impoundment level during normal operation described by a target elevation and maximum and/or minimum elevations.
Licensee	Federal Energy Regulatory Commission (FERC) license holder; originally issued to Northern States Power Company-Wisconsin.
Natural/Naturally	Not augmented or impacted by human means; naturally occurring.
National Geodetic Vertical Datum (NGVD)	NGVD of 1929, represented in decimal feet.

Term	Definition
Run-of-River	A mode of operation whereby the instantaneous flow downstream of the project's powerhouse shall approximately equal the instantaneous inflow to the project's impoundment.
State Agencies	The State of Michigan agencies responsible for implementing the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) (i.e., EGLE, Michigan Department of Natural Resources [MDNR]).
United States Geological Survey (USGS) Quality Gage	A calibrated, reliable, quality assured, instantaneous monitoring site with at least hourly transmittal of accurate stream flow data in conformance with USGS standards or guidelines and which includes publicly available internet-based/web retrieval of real time and historic data. Measurements shall be taken at 15-minute intervals, beginning on the hour.
WQS	Michigan's Part 4 Rules, WQS, promulgated pursuant to Part 31, Water Resources Protection, of the NREPA.

Saxon Falls Hydroelectric Project

1.0 Saxon Falls Hydroelectric Project – Operational Requirements

- 1.1 The Licensee shall maintain the Saxon Falls Impoundment at a target elevation of 997.0 feet NGVD. Any fluctuation shall normally not drop below a minimum elevation of 996.5 feet NGVD except during events beyond the control of the Licensee including periods of naturally high and low flow.
- 1.2 The Licensee shall operate the Saxon Falls Hydroelectric Project in Run-of-River Mode to maintain a natural hydrograph for the protection of aquatic life and wildlife. The Licensee shall not operate in a peaking mode, including inside the licensed bandwidth.

- 1.3 The Licensee shall maintain a continuous minimum flow in the natural river channel of 10 cubic feet per second or Saxon Falls Impoundment inflows, whichever is less, for the protection of aquatic life and wildlife.
- 1.4 Within one year of license issuance, the Licensee shall install and maintain at least one calibrated staff gage in the Saxon Falls Impoundment at a location clearly visible to the public. The Licensee shall record the impoundment headwater elevations at 15-minute intervals, beginning on the hour.
- 1.5 The Licensee shall provide funding for the establishment and ongoing maintenance (on an annual, inflation-adjusted basis) of at least one USGS quality gaging station for the duration of the FERC license. This gaging station shall measure instantaneous flow representing inflows from the mainstem Montreal River to the Saxon Falls Impoundment. The station shall be located downstream of the confluence of the mainstem Montreal River and the West Fork Montreal River. The exact monitoring station locations shall be determined in consultation with State Agencies.
- 1.6 The Licensee shall submit to the State Agencies by March 1 of the following year an annual report of all flow data, discharge data, and operational changes including daily summary data, gate operations, and all turbine-setting changes for the purpose of run-of-river compliance. All data shall be provided promptly to the United States Fish and Wildlife Service (USFWS), State Agencies, and tribal governments, promptly upon request.

2.0 Saxon Falls Hydroelectric Project – Water Quality Requirements

- 2.1 The Licensee shall not warm the Montreal River, including the Saxon Falls Impoundment by operation of the Saxon Falls Hydroelectric Project, to temperatures in degrees Fahrenheit higher than the following monthly listed maximum temperatures:

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
38	38	43	54	65	68	68	68	63	56	48	40

This requirement shall not apply when, after consideration of appropriate lag times, the natural temperatures of the Montreal River measured at the water quality monitoring station upstream of the Saxon Falls Impoundment exceed the listed monthly maximum temperature values.

- 2.2 The Licensee shall not cause the dissolved oxygen (DO) concentration, in the Montreal River including the Saxon Falls Impoundment to be less than 7.0 milligrams per liter (mg/L) at any time.

- 2.3 In the event that any of the water quality requirements listed in Sections 2.1 and 2.2 of this Certification are not met, the Licensee shall notify the Lake Michigan Unit Supervisor of EGLE, WRD, within one business day of identifying the noncompliance condition and take all steps necessary to ensure that compliance with these requirements is achieved.
- 3.0 Saxon Falls Hydroelectric Project – Water Quality Monitoring and Reporting
- 3.1 The Licensee shall monitor the DO and water temperature every 5th year from June 1 through September 30. The first such sampling event will be conducted in 2029. The Licensee shall develop, in consultation with EGLE, an EGLE-approved Water Quality Monitoring Plan with the following minimum requirements:
- 3.1.1 Monitoring stations shall be located on the Montreal River:
(1) upstream of the Saxon Falls Impoundment and downstream of the confluence of the West Fork Montreal; and (2) immediately downstream of the Saxon Falls powerhouse tailrace.
- 3.1.2 Sensors shall measure a representative portion of the channel in the top third of the water column, avoiding areas of air bubble entrainment, at a continuous sampling frequency of at least 15 minutes.
- 3.1.3 Continuous sensors shall be maintained according to manufacturer specifications and checked at least weekly, including calibration checks, cleaning, and data retrieval.
- 3.1.4 The Licensee shall monitor DO and water temperature vertical profiles in the deepest part of the Saxon Falls Impoundment every two weeks from June 1 through August 31 and once mid-month for the months of February, March, April, May, September, and October. Profile monitoring shall begin following ice-out conditions.
- 3.1.5 Monitoring must be repeated the following year if fewer than 80 percent of required measurements are successfully recorded and quality-assured, or if water quality requirements are not met for at least 90 percent of the quality-assured measurements.
- 3.2 During fall 2029, and every ten years thereafter, the Licensee shall analyze the sediments in the Saxon Falls Impoundment for the following parameters and desired quantification levels in milligrams per kilogram (mg/kg) for the following: Total Arsenic (9.8), Total Barium (20.0), Total Cadmium (0.99), Total Copper (31.6), Total Chromium (43.4), Total Iron (20,000), Total Lead (35.8), Total Mercury (0.18), Total Nickel

(22.7), Total Selenium (0.72), Total Silver (1.6), and Total Zinc (121). Additional analysis includes desired quantification levels in micrograms per kilogram ($\mu\text{g/kg}$) dry weight at one percent Total Organic Carbon: Total polycyclic aromatic hydrocarbons (PAH) (1,610) and Total polychlorinated biphenyls (PCB) (59.8).

- 3.3 In 2029, and every ten years thereafter, ten legal-sized fish of one top predator species (e.g., walleye, northern pike, largemouth bass) shall be collected for mercury analysis from within the Saxon Falls Impoundment. Perfluorooctanesulfonic acid (PFOS) and/or other parameters may be added to the top predator analysis as determined by EGLE staff. In addition, ten fish, of a size that would be retained for eating, of one bottom dwelling species (e.g., white sucker, common carp) shall be collected for Total PCBs (congeners) and/or other parameters as determined in consultation with EGLE staff. For edible portion analysis (e.g., fillets), the Michigan Department of Health and Human Services (MDHHS) laboratory shall be used for the chemical analysis. When utilizing the MDHHS laboratory, fish shall be delivered to EGLE's Fish Contaminant Monitoring Program (FCMP) as whole, frozen fish for the fillet processing. EGLE will process fish according to Procedure WRD-SWAS-004. Exceptions can be made to use outside laboratories on a case-to-case basis. Memorandum of Understandings (MOU) or purchase orders will need to be established by the Licensee and the MDHHS Bureau of Laboratories. The purpose of the MOU is to establish and agree upon the responsibilities and procedures for the MDHHS and Licensee for the analysis of the submitted samples. Dam owners or operators will not be held responsible for contamination that they did not cause. If collection efforts do not result in the exact numbers, size, and species of fish desired, fish collection personnel shall contact the FCMP Specialist in EGLE's WRD, as the collections occur to clarify any questions about how to proceed if initial collection efforts are not completely successful.
- 3.4 A water quality report of the data generated to comply with Sections 3.1-3.3 shall be submitted to the State Agencies by March 1 of the year following data collection. The report shall detail the data collection methods, quality control and quality assurance activities, and quantify the attainment of water quality requirements, or other relevant standards, and explain any violations of water quality requirements. Continuous WQS attainment shall be quantified by percent of samples meeting the DO requirements and percent of samples meeting the water temperature requirements for each month. Any violations of the water quality requirements shall be explained.

4.0 Saxon Falls Hydroelectric Project – Bank Erosion Control

- 4.1 The Licensee shall, within the first year of operation, create in consultation with the MDNR, an MDNR-approved plan to monitor and remediate stream bank erosion sites caused by the existence and operation of the Saxon Falls Hydroelectric Project.

5.0 Saxon Falls Hydroelectric Project – Natural Organic Debris Maintenance

- 5.1 The Licensee shall, within the first year of operation, create in consultation with the MDNR, an MDNR-approved plan to pass natural organic debris collected on the trash racks and log booms over the dam. Natural organic debris includes logs, sticks, aquatic plants, and leaves. Trash shall be disposed of off-site.

6.0 Saxon Falls Hydroelectric Project – Drawdowns

- 6.1 The Licensee shall, within the first year of operation, create in consultation with the MDNR, an MDNR-approved plan for implementing drawdowns of the Saxon Falls Impoundment with the minimum requirements found in Section 6.2.
- 6.2 For the implementation of impoundment drawdowns for maintenance, inspections, emergencies, or other purposes, the Licensee shall:
 - 6.2.1 Consult with State Agencies in advance for planned drawdowns. Ensure activities and mitigation measures conform to State Agency specifications.
 - 6.2.2 Avoid and manage impacts by using alternatives (e.g., coffer dams, divers, robotic technology) to avoid drawdowns. When drawdowns are necessary, coordinate other planned work or inspections to reduce frequency of drawdowns.
 - 6.2.3 Minimize drawdown impacts by reducing the duration, rate, and extent of drawdowns. Avoid sensitive periods such as winter and spawning seasons between September 15 and June 1.
 - 6.2.4 Promptly provide mitigation for unavoidable impacts. Provide professional, thorough, and timely stranded organism survey and relocation efforts and reduce stress and mortality resulting from the drawdown and planned activities.
 - 6.2.5 Prevent, manage, and mitigate excessive erosion, sedimentation, and turbidity. During refill, provide minimum exceedance flows to the Montreal River above the monthly 90 percent low flow level, unless an alternate plan is approved by the MDNR.

Superior Falls Hydroelectric Project

7.0 Superior Falls Hydroelectric Project – Operational Requirements

- 7.1 The Licensee shall maintain the Superior Falls Impoundment at a target elevation of 740.2 feet NGVD. Any fluctuation shall normally not drop below a minimum elevation of 739.7 feet NGVD except during events beyond the control of the Licensee including periods of naturally high and low flow.
- 7.2 The Licensee shall operate the Superior Falls Hydroelectric Project in Run-of-River Mode to maintain a natural hydrograph for the protection of aquatic life and wildlife. The Licensee shall not operate in a peaking mode, including inside the licensed bandwidth.
- 7.3 The Licensee shall maintain a continuous minimum flow in the natural river channel of 15 cubic feet per second or Superior Falls Impoundment inflows, whichever is less, for the protection of aquatic life and wildlife.
- 7.4 Within one year of license issuance, the Licensee shall install and maintain at least one calibrated staff gage in the Superior Falls Impoundment at a location clearly visible to the public. The Licensee shall record the impoundment headwater elevations at 15-minute intervals, beginning on the hour.
- 7.5 The Licensee shall provide funding for the establishment and ongoing maintenance (on an annual, inflation-adjusted basis) of at least one USGS quality gaging station for the duration of the FERC license. This gaging station shall measure instantaneous flow representing inflows from the mainstem Montreal River to the Superior Falls Impoundment. The station shall be located downstream of the confluence of the mainstem Montreal River and the West Fork Montreal River. This is the same monitoring station required for the Saxon Falls Hydroelectric Project. The exact monitoring station locations shall be determined in consultation with State Agencies.
- 7.6 The Licensee shall submit to the State Agencies by March 1 of the following year an annual report of all flow data, discharge data, and operational changes including daily summary data, gate operations, and all turbine-setting changes for the purpose of run-of-river compliance. All data shall be provided promptly to the USFWS, State Agencies, and tribal governments, promptly upon request.

8.0 Superior Falls Hydroelectric Project – Water Quality Requirements

- 8.1 The Licensee shall not warm the Montreal River, including the Superior Falls Impoundment by operation of the Superior Falls Hydroelectric Project, to temperatures in degrees Fahrenheit higher than the following monthly listed maximum temperatures:

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
38	38	43	54	65	68	68	68	63	56	48	40

This requirement shall not apply when, after consideration of appropriate lag times, the natural temperatures of the Montreal River measured at the water quality monitoring station upstream of the Superior Falls Impoundment exceed the listed monthly maximum temperature values.

- 8.2 The Licensee shall not cause the DO concentration in the Montreal River, including the Superior Falls Impoundment, to be less than 7.0 mg/L at any time.
- 8.3 In the event that any of the water quality requirements listed in Sections 8.1 and 8.2 of this Certification are not met, the Licensee shall notify the Lake Michigan Unit Supervisor of EGLE, WRD, within one business day of identifying the noncompliance condition and take all steps necessary to ensure that compliance with these requirements is achieved.

9.0 Superior Falls Hydroelectric Project – Water Quality Monitoring and Reporting

- 9.1 The Licensee shall monitor the DO and water temperature every 5th year from June 1 through September 30. The first such sampling event will be conducted in 2029. The Licensee shall develop, in consultation with EGLE, an EGLE-approved Water Quality Monitoring Plan with the following minimum requirements:

- 9.1.1 Monitoring stations shall be located on the Montreal River:
(1) upstream of the Superior Falls Impoundment; (2) approximately 600 feet upstream of the Superior Falls powerhouse tailrace; and
(3) at the penstock intake gates.
- 9.1.2 Sensors shall measure a representative portion of the channel in the top third of the water column, avoiding areas of air bubble entrainment, at a continuous sampling frequency of at least 15 minutes.
- 9.1.3 Continuous sensors shall be maintained according to manufacturer specifications and checked at least weekly, including calibration checks, cleaning, and data retrieval.

- 9.1.4 The Licensee shall monitor DO and water temperature vertical profiles in the deepest part of the Superior Falls Impoundment every two weeks from June 1 through August 31 and once mid-month for the months of February, March, April, May, September, and October. Profile monitoring shall begin following ice-out conditions.
- 9.1.5 Monitoring must be repeated the following year if fewer than 80 percent of required probe measurements are successfully recorded and quality-assured, or if water quality requirements are not met for at least 90 percent of the quality-assured measurements.
- 9.2 During fall 2029, and every ten years thereafter, the Licensee shall analyze the sediments in the Superior Falls Impoundment for the following parameters and desired quantification levels in mg/kg for the following: Total Arsenic (9.8), Total Barium (20.0), Total Cadmium (0.99), Total Copper (31.6), Total Chromium (43.4), Total Iron (20,000), Total Lead (35.8), Total Mercury (0.18), Total Nickel (22.7), Total Selenium (0.72), Total Silver (1.6), and Total Zinc (121). Additional analysis includes desired quantification levels in µg/kg dry weight at 1 percent Total Organic Carbon: Total PAHs (1,610) and Total PCBs (59.8).
- 9.3 In 2029, and every ten years thereafter, ten legal-sized resident fish of one top predator species (e.g., walleye, northern pike, largemouth bass) shall be collected for mercury analysis from within the Superior Falls Impoundment. PFOS and/or other parameters may be added to the top predator analysis as determined by EGLE staff. In addition, ten fish of a size that would be retained for eating, of one bottom dwelling species (e.g., white sucker, common carp) shall be collected for Total PCBs (congeners) and/or other parameters as determined in consultation with EGLE staff. For edible portion analysis (e.g., fillets), the MDHHS laboratory shall be used for the chemical analysis. When utilizing the MDHHS laboratory, fish shall be delivered to EGLE's FCMP as whole, frozen fish for the fillet processing. EGLE will process fish according to Procedure WRD-SWAS-004. Exceptions can be made to use outside laboratories on a case-to-case basis. MOUs or purchase orders will need to be established by the Licensee and the MDHHS Bureau of Laboratories. The purpose of the MOU is to establish and agree upon the responsibilities and procedures for the MDHHS and Licensee for the analysis of the submitted samples. Dam owners or operators will not be held responsible for contamination that they did not cause. If collection

efforts do not result in the exact numbers, size, and species of fish desired, fish collection personnel shall contact the FCMP Specialist in EGLE's WRD, as the collections occur to clarify any questions about how to proceed if initial collection efforts are not completely successful.

- 9.4 A water quality report of the data generated to comply with Sections 9.1-9.3 shall be submitted to the State Agencies by March 1 of the year following data collection. The report shall detail the data collection methods, quality control and quality assurance activities, and quantify the attainment of water quality requirements, or other relevant standards, and explain any violations of water quality requirements. Continuous WQS attainment shall be quantified by percent of samples meeting the DO requirements and percent of samples meeting the water temperature requirements for each month. Any violations of the water quality requirements shall be explained.
- 10.0 Superior Falls Hydroelectric Project – Bank Erosion Control
 - 10.1 The Licensee shall, within the first year of operation, create in consultation with the MDNR, an MDNR-approved plan to monitor and remediate stream bank erosion sites caused by the existence and operation of the Superior Falls Hydroelectric Project.
- 11.0 Superior Falls Hydroelectric Project – Natural Organic Debris Maintenance
 - 11.1 The Licensee shall, within the first year of operation, create in consultation with the MDNR, an MDNR-approved plan to pass natural organic debris collected on the trash racks and log booms over the dam. Natural organic debris includes logs, sticks, aquatic plants, and leaves. Trash shall be disposed of off-site.
- 12.0 Superior Falls Hydroelectric Project – Drawdowns
 - 12.1 The Licensee shall, within the first year of operation, create in consultation with the MDNR, an MDNR-approved plan for implementing drawdowns of the Superior Falls Impoundment with the minimum requirements found in Section 12.2.
 - 12.2 For the implementation of impoundment drawdowns for maintenance, inspections, emergencies, or other purposes, the Licensee shall:
 - 12.2.1 Consult with State Agencies in advance for planned drawdowns. Ensure activities and mitigation measures conform to State Agency specifications.
 - 12.2.2 Avoid and manage impacts by using alternatives (e.g., coffer dams, divers, robotic technology) to avoid drawdowns. When drawdowns

are necessary, coordinate other planned work or inspections to reduce frequency of drawdowns.

12.2.3 Minimize drawdown impacts by reducing the duration, rate, and extent of drawdowns. Avoid sensitive periods such as winter and spawning seasons between September 15 and June 1.

12.2.4 Promptly provide mitigation for unavoidable impacts. Provide professional, thorough, and timely stranded organism survey and relocation efforts and reduce stress and mortality resulting from the drawdown and planned activities.

12.2.5 Prevent, manage, and mitigate excessive erosion, sedimentation, and turbidity. During refill, provide minimum exceedance flows to the Montreal River above the monthly 90 percent low flow level, unless an alternate plan is approved by the MDNR.

Saxon Falls Hydroelectric Project and Superior Falls Hydroelectric Project Additional Conditions

13.0 Natural Resource Damages and Penalties

13.1 The state reserves the right to seek civil or criminal penalties and liabilities under applicable law for natural resource damages that may occur.

14.0 Permits and Approvals

14.1 Nothing herein shall relieve the Licensee from the requirement to meet WQS, obtain any other permits, licenses, or approvals from EGLE or other federal or state departments or agencies, or otherwise comply with applicable state laws. For all proposed reservoir drawdowns (and refills), the Licensee shall obtain any necessary State of Michigan permits and consult with the MDNR concerning the need for any remedial actions, mitigation, or restitution.

15.0 Schedule Modification

15.1 EGLE may extend or modify the specified implementation schedules within this Certification upon written request from the Licensee, if the Licensee, despite their good faith efforts, is unable to meet the schedules specified within this Certification because of events beyond their control.

16.0 Temporary Modification of Operational Requirements

16.1 Operational requirements of this Certification may be temporarily suspended for completion of necessary inspections, maintenance activities, dam safety activities, and other activities as may be required by

the FERC provided that prior notice is given to EGLE and the MDNR, and any necessary permits and approvals are obtained.

17.0 Right of Entry

17.1 The Licensee shall allow EGLE, or any agent appointed by EGLE, upon the presentation of credentials, to enter upon the Licensee's premises at reasonable times to have access to, and copy, any records required to be kept under the conditions of this Certification, to inspect the facilities or to sample water within the project boundaries and on project lands.

18.0 Project Changes

18.1 The Licensee shall notify EGLE and the MDNR, within ten days of any change that has occurred or may have occurred in the structures or operation of the Saxon Falls Hydroelectric Project and Superior Falls Hydroelectric Project that may affect compliance with Certification conditions.

19.0 Modification

19.1 If EGLE determines that the Saxon Falls Hydroelectric Project and/or the Superior Falls Hydroelectric Project can no longer comply with Section 401(a) of the federal Clean Water Act or the Michigan WQS, then this Certification may be modified or revoked after appropriate public notice and opportunity for hearing.

20.0 Communication

20.1 The Licensee shall keep an updated contact list of individuals for the purpose of electronic communication with State Agencies. Electronic communication is preferred.

21.0 Electronic Document Submission

21.1 Electronic documents are expected and shall be submitted to EGLE and the MDNR in lieu of paper documents with the following provisions:

21.1.1 Reports must be provided in a text-searchable format.

21.1.2 Tabular data must be provided in an editable spreadsheet file type.

21.1.3 The Licensee is responsible for coordination of transferring file sizes too large for e-mail.

This Certification is issued this ____th day of September 2026 by EGLE and shall expire at the end of the FERC license period.

Kevin Cox, Acting Manager
Great Lakes Watershed Assessment, Restoration, and Management Section
Water Resources Division
Michigan Department of Environment, Great Lakes, and Energy

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Appendix: Necessity of Condition and Citation of Authority

This appendix provides supporting explanations and statutory or regulatory citations for the conditions listed in this Certification. Each entry corresponds to the numbered condition in the main document to maintain clarity and ease of reference.

Michigan's water quality requirements are primarily set forth in Michigan's Part 4 Rules, WQS, promulgated pursuant to Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The following Part 4 Rules are cited throughout the Appendix:

Rule	Title
R 323.1050	Physical characteristics
R 323.1064	Dissolved oxygen in Great Lakes, connecting waters, and inland streams
R 323.1072	Temperature: inland lakes, general standards
R 323.1075	Temperature of rivers, streams, and impoundments
R 323.1096	Determinations of compliance with Water Quality Standards
R 323.1100	Designated Uses

- 1.1 Target elevations are necessary to monitor and ensure run-of-river operation because of the lack of downstream flow monitoring at the Saxon Falls Hydroelectric Project. Additionally, operating within the target bandwidth prevents the fluctuation of impoundment levels, which can cause the death of burrowing reptiles and amphibians when water levels drop after they have burrowed for the cold months. These requirements protect designated uses of coldwater fisheries and other indigenous aquatic life and wildlife pursuant to R 323.1100.
- 1.2 Run-of-river operation preserves natural flow fluctuations, which are critical for maintaining sediment transport, channel morphology, and habitat complexity. Run-of-river operation avoids artificial flow fluctuations associated with peaking operations, which can cause streambank erosion, sedimentation, and habitat degradation. This in turn protects aquatic life and habitat. Natural or stable flows support the life cycles of aquatic organisms, including spawning, feeding, and migration. Run-of-river operation reduces the risk of stranding aquatic organisms during flow reductions and can help maintain DO levels and temperature regimes suitable for aquatic life. These requirements protect designated uses for coldwater fisheries and other indigenous aquatic life and wildlife pursuant to R 323.1100. Run-of-river operation also supports attainment of numeric

standards for DO and water temperature pursuant to R 323.1075 and R 323.1064.

- 1.3 Minimum flows are necessary to maintain wetted habitat in the natural river channel, and ensure enough water is present to support aquatic life. Consistent hydrologic regimes and the maintenance of minimum flows near as possible to natural conditions positively influences habitat quality downstream of affected facilities. Minimum flows protect the designated uses under R 323.1100.
- 1.4 This condition is necessary for monitoring and ensuring compliance with conditions 1.1-1.3. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 1.5 This condition is necessary for monitoring and ensuring compliance with conditions 1.1-1.3. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 1.6 This condition is necessary for keeping a record of compliance with conditions 1.1-1.3. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 2.1 This condition is necessary to meet maximum water temperature limits set forth in R 323.1075, which support designated uses under R 323.1100.
- 2.2 This condition is necessary to meet minimum DO limits set forth in R 323.1064, which support designated uses under R 323.1100.
- 2.3 This condition is necessary for monitoring and ensuring compliance with conditions 2.1-2.2. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 3.1 This condition and sub-conditions are necessary for monitoring and ensuring compliance with conditions 2.1-2.2. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d). The specific minimum requirements of the water quality monitoring plan are specified to ensure monitoring meets the “other methods prescribed or approved by the department” requirements under R 323.1096.
- 3.2 This condition is necessary to determine if the Montreal River is meeting the designated uses for coldwater fishery, other indigenous aquatic life and wildlife, and fish consumption. Sediment contaminants have the potential to be released to downstream waters, into the water column, and have biological pathways to move up and downstream. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d). The designated uses are protected under R 323.1100.
- 3.3 This condition is necessary to determine if the Montreal River is meeting the designated uses for coldwater fishery, other indigenous aquatic life and wildlife,

and fish consumption. Fish contaminants have biological pathways that can move harmful toxic substances downstream or cause harm if ingested. The fish consumption designated use is monitored through the fish contaminant monitoring at the project and is disseminated to the public through Michigan's Eat Safe Fish Guidelines, which in turn protects human health and recreation in and around the project. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d). The designated uses are protected by R 323.1100.

- 3.4 This condition is necessary for monitoring and ensuring compliance with conditions 3.1-3.3. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 4.1 This condition is necessary for preventing unnatural erosion due to the operation and presence of the dam. Monitoring shoreline erosion and repairing erosion in the project boundary is necessary to protect nearshore habitat of warmwater fish, coldwater fish, and other indigenous aquatic life and wildlife pursuant to R 323.1100(1)(e) and (4-7). Erosion and subsequent sedimentation can cause unnatural quantities of turbidity and settleable solids, which are not allowed under R 323.1050. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 5.1 This condition is necessary for maintaining habitat caused by the flow of organic matter, including woody debris and organic nutrient flows to downstream waters, thus protecting the designated uses of warmwater fisheries, coldwater fisheries, and other indigenous aquatic life and wildlife pursuant to R 323.1100.
- 6.1 This condition is necessary to protect fish, mussels, and other indigenous aquatic life and wildlife from damage caused by drawdowns and refills. Additionally, this condition can prevent sediment mobilization from causing discharges that violate R 323.1050.
- 6.2 This condition and sub-conditions are necessary to protect fish, mussels, and other indigenous aquatic life and wildlife from damage caused by drawdowns and refills. Additionally, this condition can prevent sediment mobilization from causing discharges that violate R 323.1050.
- 7.1 Target elevations are necessary to monitor and ensure run-of-river operation because of the lack of downstream flow monitoring at the Saxon Falls Hydroelectric Project. Additionally, operating within the target bandwidth prevents the fluctuation of impoundment levels, which can cause the death of burrowing reptiles and amphibians when water levels drop after they have burrowed for the cold months. These requirements protect designated uses of coldwater fisheries and other indigenous aquatic life and wildlife pursuant to R 323.1100.

- 7.2 Run-of-river operation preserves natural flow fluctuations, which are critical for maintaining sediment transport, channel morphology, and habitat complexity. Run-of-river operation avoids artificial flow fluctuations associated with peaking operations, which can cause streambank erosion, sedimentation, and habitat degradation. This in turn protects aquatic life and habitat. Natural or stable flows support the life cycles of aquatic organisms, including spawning, feeding, and migration. Run-of-river operation reduces the risk of stranding aquatic organisms during flow reductions and can help maintain DO levels and temperature regimes suitable for aquatic life. These requirements protect designated uses for coldwater fisheries and other indigenous aquatic life and wildlife pursuant to R 323.1100. Run-of-river operation also supports attainment of numeric standards for DO and water temperature pursuant to R 323.1075 and R 323.1064.
- 7.3 Minimum flows are necessary to maintain wetted habitat in the natural river channel, and ensure enough water is present to support aquatic life. Consistent hydrologic regimes and the maintenance of minimum flows near as possible to natural conditions positively influences habitat quality downstream of affected facilities. Minimum flows protect the designated uses under R 323.1100.
- 7.4 This condition is necessary for monitoring and ensuring compliance with conditions 1.1-1.3. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 7.5 This condition is necessary for monitoring and ensuring compliance with conditions 1.1-1.3. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 7.6 This condition is necessary for keeping a record of compliance with conditions 1.1-1.3. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 8.1 This condition is necessary to meet maximum water temperature limits set forth in R 323.1075, which support designated uses under R 323.1100.
- 8.2 This condition is necessary to meet minimum DO limits set forth in R 323.1064, which support designated uses under R 323.1100.
- 8.3 This condition is necessary for monitoring and ensuring compliance with conditions 2.1-2.2. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 9.1 This condition and sub-conditions are necessary for monitoring and ensuring compliance with conditions 2.1-2.2. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d). The specific minimum requirements of the

water quality monitoring plan are specified to ensure monitoring meets the “other methods prescribed or approved by the department” requirements under R 323.1096.

- 9.2 This condition is necessary to determine if the Montreal River is meeting the designated uses for coldwater fishery, other indigenous aquatic life and wildlife, and fish consumption. Sediment contaminants have the potential to be released to downstream waters, into the water column, and have biological pathways to move up and downstream. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d). The designated uses are protected under R 323.1100.
- 9.3 This condition is necessary to determine if the Montreal River is meeting the designated uses for coldwater fishery, other indigenous aquatic life and wildlife, and fish consumption. Fish contaminants have biological pathways that can move harmful toxic substances downstream or cause harm if ingested. The fish consumption designated use is monitored through the fish contaminant monitoring at the project and is disseminated to the public through Michigan’s Eat Safe Fish Guidelines, which in turn protects human health and recreation in and around the project. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d). The designated uses are protected by R 323.1100.
- 9.4 This condition is necessary for monitoring and ensuring compliance with conditions 3.1-3.3. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 10.1 This condition is necessary for preventing unnatural erosion due to the operation and presence of the dam. Monitoring shoreline erosion and repairing erosion in the project boundary is necessary to protect nearshore habitat of warmwater fish, coldwater fish, and other indigenous aquatic life and wildlife pursuant to R 323.1100. Erosion and subsequent sedimentation can cause unnatural quantities of turbidity and settleable solids, which are not allowed under R 323.1050. Monitoring and compliance activities are supported by 33 U.S.C. § 1341(d).
- 11.1 This condition is necessary for maintaining habitat caused by the flow of organic matter, including woody debris and organic nutrient flows to downstream waters, thus protecting the designated uses of warmwater fisheries, coldwater fisheries, and other indigenous aquatic life and wildlife pursuant to R 323.1100.
- 12.1 This condition is necessary to protect fish, mussels, and other indigenous aquatic life and wildlife from damage caused by drawdowns and refills. Additionally, this condition can prevent sediment mobilization from causing discharges that violate R 323.1050.

- 12.2 This condition and sub-conditions are necessary to protect fish, mussels, and other indigenous aquatic life and wildlife from damage caused by drawdowns and refills. Additionally, this condition can prevent sediment mobilization from causing discharges that violate R 323.1050.
- 13.1 This condition is administrative in nature and is necessary to implement monitoring, compliance, and enforcement activities supported by 33 U.S.C. § 1341(d).
- 14.1 This condition is administrative in nature and is necessary to implement monitoring, compliance, and enforcement activities supported by 33 U.S.C. § 1341(d).
- 15.1 This condition is administrative in nature and is necessary to implement monitoring, compliance, and enforcement activities supported by 33 U.S.C. § 1341(d).
- 16.1 This condition is administrative in nature and is necessary to implement monitoring, compliance, and enforcement activities supported by 33 U.S.C. § 1341(d).
- 17.1 This condition is administrative in nature and is necessary to implement monitoring, compliance, and enforcement activities supported by 33 U.S.C. § 1341(d).
- 18.1 This condition is administrative in nature and is necessary to implement monitoring, compliance, and enforcement activities supported by 33 U.S.C. § 1341(d).
- 19.1 This condition is administrative in nature and is necessary to implement monitoring, compliance, and enforcement activities supported by 33 U.S.C. § 1341(d).
- 20.1 This condition is administrative in nature and is necessary to implement monitoring, compliance, and enforcement activities supported by 33 U.S.C. § 1341(d).
- 21.1 This condition and sub-conditions are administrative in nature and are necessary to implement monitoring, compliance, and enforcement activities supported by 33 U.S.C. § 1341(d).