

**Illinois Environmental Protection Agency  
Bureau of Water, Permit Section  
(IEPA)**

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The IEPA has issued a Public Notice of a request for a Clean Water Act Section 401 water quality certification that would allow the issuance of a federal permit for the discharge of pollutants to waters of the State.

**Public Notice Beginning Date:** Friday, June 5, 2026

**Public Notice Ending Date:** Friday, June 19, 2026

**Agency Log No.: C-0382-25**

**Federal Permit Information:** Federal permit/license no. 12626 is under the jurisdiction of Chicago District, Regulatory Branch U.S. Army Corps of Engineers

**Name and Address of Discharger:** Current Hydro - adjacent to 7521 Lock Rd, Suite 2600, Morris, MA 60450

**Discharge Location:** In Section 26 of Township 34-North and Range 8-East of the East 3rd Principal Meridian in Grundy County. Additional project location information includes the following: adjacent to 7521 Lock Rd, Morris, IL 60450

**Name of Receiving Water:** Illinois River, tributary to Mississippi River

**Project Name/Description:** Dresden Island Hydroelectric Project - proposed construction of a hydroelectric project at existing Dresden Island Lock and Dam (FERC P-12626)

**Construction Schedule:** Immediate (Planned project duration is approximately 1096 days)

The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters must provide their name and address along with comments on the certification request. The IEPA Log number must appear on each comment page. Commenters may include a request for public hearing. Only hearing requests and comments that pertain to Clean Water Act Section 401 authority will be considered. This authority provides consideration of whether the permit or license would be consistent with Sections 301, 302, 303, 306, or 307 of the CWA, as well as "any other appropriate requirement of State [or tribal] law". Requests for additional comment period must provide a demonstration of need. The final day of comment acceptance will be on the Public Notice Ending date shown above, unless the IEPA grants an extended notice period. The attached Fact Sheet provides a detailed description of the project and the findings of the IEPA's antidegradation assessment.

If written comments or requests indicate a significant degree of public interest in the certification application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please see the contact information below.

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Post Document. No. C-0382-25-06052026-PublicNoticeAndFactSheet.pdf

## 401 Water Quality Certification Fact Sheet for Dresden Island Hydroelectric

IEPA Log No. C-0382-25

Contact: Angie Sutton 217-782-9864

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Northern Illinois Hydropower, LLC (Applicant) is applying for a 401 water quality certification for impacts associated with the construction of a new powerhouse at the Dresden Island Lock and Dam at river mile 271.5 of the Illinois River. The project is adjacent to 7521 Lock Road, Morris, in Township 34 North, Range 8 East, Section 26, in Grundy County, Illinois. The applicant is proposing to install a turbine/generator system in a newly constructed 10,444 square foot concrete powerhouse, which would create approximately 50,687.8 megawatt-hour (MWh) of power per year. Maintenance bulkheads and two-inch trash racks, designed to protect the turbine equipment from debris and reduce the potential for fish entrainment, will be integrated into the powerhouse structure and providing an approach velocity of 1.5 feet per second.

The Applicant, the Illinois Environmental Protection Agency (IEPA) and Illinois Department of Natural Resources (IDNR) have agreed that a 1,000 cfs minimum bypass flow at the Dresden Island dam will maintain dissolved oxygen and support habitat for aquatic life. The project will be operated as a run-of-river (ROR) facility and pose no effect to the United States Army Corps of Engineers (USACE) operation of the lock and dam. The powerhouse will be controlled with an automated system that would automatically start up, run, and shut down the turbines. The automated system would allow the USACE to modify hydroelectric operations instantaneously in response to emergencies related to lock operation or flood control.

The project will require the excavation of overburden and rock for the construction of new intakes, a powerhouse, tailrace, transmission tunnel, and other appurtenant facility structures on the downstream side of the dam. No rock excavation is anticipated on the upstream side of the dam. The downstream excavations will require temporary cofferdam construction and area dewatering. The project will also include the following features that will require land disturbance and control of runoff and sedimentation:

- A new hydroelectric powerhouse, forebay and intake structure,
- new switchyard located on the at the proposed power station structure,
- electrical and control cable trenches, conduits and overhead transmission facilities, and
- temporary features such as material and equipment storage and laydown; parking, topsoil stockpiles, and excavation stockpiles.

Impacts are proposed in 0.66 acres (Ac) of forested wetlands, 0.03 Ac of emergent wetlands, and approximately 541 linear feet (LF) of stream. Wetland impacts will be offset by purchase of mitigation credits through an approved wetland bank at a mitigation ratio of 2.5:1. The project is anticipated to require approximately 5,400 cubic yards of temporary fill below the ordinary high-water mark associated with cofferdams and other temporary construction features, 19,300 cubic yards of permanent fill associated with Project infrastructure, and 61,900 cubic yards of permanent dredging associated with construction of the intake and tailrace areas.

Information used in this review was obtained from the application documents dated March 30, 2025, May 15, 2025, May 19, 2025, May 30, 2025, and December 10, 2025. Supplemental information regarding dredge and fill quantities was provided as of June 3, 2026.

On September 23, 2016, FERC issued an original license to Northern Illinois Hydropower LLC for a period of 50 years. In conjunction with the FERC license, the Illinois Environmental Protection Agency (IEPA) approved a 401-water quality certification in 2016. Current Hydro, on behalf of NIH, has proposed several modifications to the design of the originally licensed Project. These proposed changes include a reduction in generation and maximum hydraulic capacity, a revision of the Project Boundary, replacement of turbine models with smaller turbines, an increase in the number of turbines, modifying associated equipment, rerouting of the previously approved transmission lines, and adjustments to the operational regime. The changes reflect a significant modification from the original antidegradation assessment, thus requiring a new antidegradation assessment to be completed by the Agency.

### **Identification and Characterization of the Affected Water Body.**

Edge Engineering and Science, LLC (EDGE) conducted a wetland and waterbody delineation on June 6, 2025. Four perennial streams were delineated within the project area, of which only one is proposed to be impacted. The Illinois River has a 7Q10 flow of 2100 cfs at this location and is classified as a General Use water. The Illinois River, Waterbody Segment IL\_D-10 is listed on the 2024 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as dieldrin, endrin, heptachlor, mercury, and polychlorinated biphenyls (PCBs). Primary contact and aquatic life uses are fully supported. According to the 2008 IDNR document “Integrating Multiple Taxa in a Biological Stream Rating System”, the Illinois River is not a biologically significant stream at this location; however, it is rated a “B” stream using IDNR’s integrity rating system at this location. This segment of the Illinois River is subject to enhanced dissolved oxygen standards.

The survey also indicated the presence of 2 wetland features, wb001 and wb002, within the project area. Wetland wb001 is a depressional, 3.02 Ac palustrine forested (PFO) wetland, with dominant vegetation consisting of hackberry (*Celtis occidentalis*), green ash (*Fraxinus pennsylvanica*), stinging nettle (*Urtica dioica*), and Canada wood nettle (*Laportea canadensis*). Impacts to 0.66 Ac are proposed to wb001. Wetland wb002, located between the toe of the berm formed by the dam road and the Illinois River, is a 0.21 Ac palustrine emergent wetland with dominant vegetation consisting of sugar maple (*Acer saccharum*) and reed canary grass (*Phalaris arundinacea*). Impacts are proposed to 0.03 Ac of wb002.

### **Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.**

During Project construction there will be approximately 541 LF temporary in-stream impacts associated with the cofferdams and dredging activities to enable construction of the facility in the dry. Permanent wetland impacts will occur in 0.69 Ac as a result of upper forebay and powerhouse excavation, and temporary impacts are expected as a result of construction road access, and cofferdam placement.

Dredging activities will result in sediment redistribution and turbidity increases. These increases are expected to be short-term and temporary. A draft Construction Erosion and Sedimentation Plan was prepared by the applicant to address volume, composition, and location of required dredging and soil disposal. The Plan also addresses sediment and erosion control during and after construction. This will be filed with applicable agencies prior to beginning any construction activities. The project is anticipated to require approximately 5,400 cubic yards of temporary fill, 19,300 cubic yards of permanent fill, and 61,900 cubic yards of permanent dredging.

Sediment analysis was conducted in August 2008 showing detections of arsenic, chromium, lead and mercury at levels above Tiered Approach to Corrective Action Objectives (TACO) Tier 1 Soil Remediation Objectives standards. No PCBs or pesticides were detected either upstream or downstream of the dam. The original FERC License Application provides the complete survey report containing detailed information regarding the analytes considered and detected in the 2008 sediment survey along with the TACO Tier 1 standards.

A condition to require bypassing 1000 cfs of flow at the dam was added to the project in order to ensure that dissolved oxygen standards and aquatic habitat are maintained.

The proposed construction would temporarily affect portions of in-stream habitat. Increased turbidity or sediment deposition would temporarily affect aquatic habitat. The Applicant anticipates dredging sediment and other materials directly upstream and downstream of the proposed powerhouse as part of the proposed construction activities. No other pollutant load increases would occur from this project other than some increases in suspended solids near the location of mechanical dredging equipment. Benthic organisms will be disturbed by dredging and construction activities. Fish will be displaced and have foraging opportunities disrupted while construction activities occur.

#### **Fate and Effect of Parameters Proposed for Increased Loading.**

Sediment and soil erosion control plans are proposed and will be utilized during construction. Silt fencing and straw bales will be properly located to minimize runoff to surface waters. Installation of a turbidity curtain attached to the existing ice barrier wall and adjacent to the proposed cofferdam work area will further prevent passage of sediment disturbed by the cofferdam installation into downstream section of the Illinois Waterway. Turbidity will be monitored continuously, and water samples will be collected daily for laboratory chemical analysis during excavation.

Once operation commences dissolved oxygen monitors will be placed near the intakes of the powerhouse and downstream at a point where safe access and a relatively secure location can be determined. Ongoing dissolved oxygen monitoring and reporting will be required as a condition of the Water Quality Certification.

Aquatic communities at least as diverse as those that currently inhabit the river will return upon construction completion. The Applicant states:

To better understand the potential effects of the proposed Project, the Applicant enlisted the Midwest Biodiversity Institute (MBI) to review the potential effects of the proposed operations on the fish resource below the dam. Their analysis indicated that the proposed project will likely have minimal overall effects on aquatic habitat, though locations may be altered.”

The proposed Project includes trash rack (two-inch spacing) and intake velocity (<1.5 feet per second) designs to minimize fish entrainment. Additionally, the Applicant proposes to work with IDNR to design and construct additional habitat downstream of the Project using materials removed during construction excavation. The proposed Project may also have temporary effects on fish due to displacement from habitats at dredging locations and the powerhouse construction site; however, the Project is unlikely to have any permanent effect to this resource once constructed.

The proposed project is expected to result in temporary wetland impacts to emergent and forested wetlands within the project area. A small section of this wetland of the right abutment of the dam may be temporarily disturbed by the reinforcement of the existing USACE access road to the river. Upon completion of the project, the access road will be restored to its prior configuration. Permanent wetland impacts are expected in 0.69 Ac which the Applicant has agreed to mitigate at a ratio of 2.5:1 by purchasing credits from an approved mitigation bank.

The 2025 amendment to the previously permitted project provides a reduced footprint for the project, reduces the power plant flow capacity, decreases wetland impacts, and increases the mitigation ratio. Current Hydro is committed to adhering to the previously proposed avoidance, minimization and mitigation strategies outlined in the FERC issued license and existing 401 Water Quality Certification. While final engineering drawings are still in development, the applicant anticipates that the revised design will result in less overall impact to waters and adjacent resources. Additional avoidance and minimization measures will be incorporated during final design and permitting phases as needed.

#### **Purpose and Social & Economic Benefits of the Proposed Activity.**

The Dresden Project's purpose is to generate renewable hydroelectric energy at an existing USACE lock and dam on the Illinois River. The proposed Project will require water flowing through turbines in order to generate electricity. This renewable energy will use the kinetic movement of flowing water to help increase domestic energy production in the United States to meet energy shortages around the country. The Dresden Island Hydroelectric Project will utilize an existing dam while ensuring environmentally responsible construction and operation. The Project aligns with federal and state energy goals by contributing clean energy to the regional grid while maintaining commercial navigation, the original use and purpose of the lock and dam structures. The Project will provide consistent and controlled water flow in close proximity to the electrical grid. The

Dresden Island Project will contribute to energy independence and sustainability, ensuring a stable and clean power supply for the surrounding communities.

### **Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.**

The Applicant has stated that the previously submitted alternatives analysis provided in the 2013 application has been thoroughly reviewed. The previously proposed design was considered as well as the No Action option and determined that the proposed project in the current application provides a reduced overall environmental impact as compared to the originally licensed project. The alternatives analysis from the 2016 approved 401 Water Quality Certification Antidegradation Assessment are provided below:

#### No Action

*The No-Action Alternative would result in no hydropower development at the Dresden Island Lock and Dam. The no-action alternative is not a preferred option given the present and future need for renewable power in a geographic area that is experiencing a vast increase in power demand due to local population growth and urban growth.*

#### Operations Modification to Enhance Dissolved Oxygen

*NIH proposed to operate either or both the crest gates or headgates in conjunction with the proposed Project. The alternative involved automatically increasing the spill through the gate(s) to enhance DO concentrations as generation was reduced. NIH included a provision to monitor and record data for two years and then work with IEPA to determine if modifying operations was necessary. While this alternative may have met state water quality criteria, it did not adequately address anti-degradation in terms of either water quality or habitat quality. The alternative was rejected.*

#### Air Injection

*NIH analyzed equipment modifications to either passively entrain or force air into the hydro discharge. Both passive and active air injection required extensive modification to equipment as well as powerhouse design, both of which decreased plant efficiencies below cost effectiveness. Operations costs for a forced air system often exceeded the estimated value of the power. While the systems could maintain water quality, less water was available for habitat across the entire width of the dam. The alternative was rejected on the basis of plant economics and habitat degradation.*

#### Dissolved Oxygen Enhancement

*NIH analyzed a system to inject oxygen in the forebay of the proposed facility such that dissolved oxygen would meet or exceed water quality standards. NIH proposed to install four Praxair ISO units, controlled by a DO sensor and feedback loop. NIH suggested that the combination of the DO injection system and the ability to adjust the quantity of water through the plants would provide an effective means to maintain water quality. NIH estimated that bypassing more than 500 cfs along with the operations and maintenance costs of the proposed system would make the Project uneconomic. Because the proposal to bypass no more than 500 cfs did not meet the criteria for maintaining habitat, the alternative was rejected.*

#### **Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.**

The Final License Application (FLA) contained previous analysis of the presence of the federally and state-endangered Indiana Bat (*Myotis sodalis*). The Northern Long-eared Bat (*Myotis septentrionalis*) was listed as endangered in 2022, after the FLA was submitted. The project lies within known historic range of both bat species. In 2025, Current Hydro performed a bat habitat assessment at the project site, results of which were submitted as part of the application documents. The survey documented five suitable roosting trees within the direct Project footprint. The applicant will work to avoid prime roosting trees and will clear all vegetation during the USFWS approved tree clearing season (November 16 to March 31).

A mussel survey was also completed for the project.

The USFWS also lists the Monarch Butterfly (*Danaus plexippus*) and the Western Regal Fritillary (*Argynnis idalia occidentalis*) as proposed threatened species that may be found within the Project Boundary. However, no critical habitat for any of these species exists within the proposed Project Boundary.

Per the most recent application:

“The Illinois River Waterway may harbor several state-endangered species, including the Blacknose Shiner (*Notropis heterolepis*), Greater Redhorse (*Moxostoma valenciennesi*), and Pallid Shiner (*Hybopsis amnis*), as well as state-threatened species such as the River Redhorse (*Moxostoma carinatum*) and Purple Wartyback (*Cyclonaias tuberculata*). A 2020 Conservation Plan and accompanying Incidental Take Permit (ITP) were established for the Greater Redhorse, River Redhorse, Pallid Shiner, Blacknose Shiner, and Purple Wartyback. The Conservation Plan outlines the species’ ecology, documented or potential occurrence within the Project Area, anticipated impacts from Project construction and operation, and results of supporting background studies. The ITP is a binding agreement that specifies required mitigation and minimization measures, as well as post-construction monitoring obligations. Streamline Chub, Western Sand Darter, and Trout-perch may be added to both the Conservation Plan and ITP at the IDNR’s discretion as a part of this amendment process. Additional information on mitigation measures included in the Conservation Plan can be found in Section 5.3.2 of the FERC license amendment (NIH 2015).

During consultation with the IDNR on October 16, 2024, IDNR confirmed that no new state or federally protected species have been documented in this section of the Illinois River since the 2008 survey conducted for licensing. Furthermore, because the Project footprint is smaller and remains within the same general area as the original footprint, and due to Current Hydro’s commitment to a 1,000 cfs bypass flow, IDNR determined that no additional analysis was necessary. Following the October consultation, Current Hydro submitted a request for a natural resource review through the Ecological Compliance Assessment Tool (EcoCAT), which was completed on January 14, 2025. The review identified the state-listed Greater Redhorse, River Redhorse, Streamline Chub, and Trout-perch as species with the potential to occur within the Project area (Appendix I). While IDNR concluded that adverse effects are unlikely, it provided recommendations to mitigate potential impacts; these are outlined in Section 5.3.2 of the FLA Exhibit E (NIH 2015). For detailed information on the Greater Redhorse and River Redhorse, see Section 4.1.2 of NIH’s 2015 FLA (NIH 2015).”

An EcoCAT endangered species consultation was submitted to the Illinois Department of Natural Resources on January 14, 2025 (Project #'s 2508088 [P-12626, 0904298]). The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

EcoCAT indicated records for the state-listed Greater and River Redhorse in the vicinity of the project area. The Department made recommendations due to the known occurrences of these species in the project area. Recommendations include:

- Installation of silt fencing at the Ordinary High Water Mark
- Strict adherence to soil erosion and sediment control BMPs be followed in order to avoid water quality impacts
- Parking and staging should be out of the 100-year floodplain

**Agency Conclusion.**

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the antidegradation review summary was written. We tentatively find that the proposed activity would result in the attainment of water quality standards; that all existing uses of the receiving streams would be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity would benefit the community at large through the production of clean, renewable energy. Comments received during the 401 certification public notice period will be evaluated before a final decision is made by the Agency.