



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

Mr. Kevin Bernier  
Great Lakes Hydro America, LLC  
1024 Central Street  
Millinocket, ME. 04462

November 19, 2013

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0036536  
Maine Waste Discharge License (WDL) Application #W008078-5R-E-R  
**Draft Permit/License**  
**North Twin Hydro Project**

Dear Mr. Bernier:

Enclosed is a proposed draft MEPDES permit and Maine WDL (permit hereinafter) which the Department proposes to issue as a final document after opportunity for your review and comment. By transmittal of this letter you are provided with an opportunity to comment on the proposed draft permit and its conditions (special conditions specific to this permit are enclosed; standard conditions applicable to all permits are available upon request). If it contains errors or does not accurately reflect present or proposed conditions, please respond to this Department so that changes can be considered.

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies, as required by our new regulations, and from any other parties who have notified the Department of their interest in this matter.

All comments must be received in the Department of Environmental Protection office on or before the close of business Thursday, December 19, 2013. Failure to submit comments in a timely fashion will result in the final document being issued as drafted. Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection  
Bureau of Land & Water Quality  
Division of Water Quality Management  
17 State House Station  
Augusta, ME 04333

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04679  
(207) 764-0477 FAX: (207) 760-3143



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If you have any questions regarding the matter, please feel free to call me at 446-1875.

Sincerely,

Rodney Robert  
Division of Water Quality Management  
Bureau of Land and Water Quality

Enc.

cc: Ivy Frignoca, CLF  
Oliver Cox, DMR  
Gail Whippelhauser, DMR  
Alex Rosenburg, USEPA  
David Pincumbe, USEPA  
Olga Vergara, USEPA  
Dan Kunierz, Penobscot Indian Nation

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DEPARTMENT ORDER

**IN THE MATTER OF**

GREAT LAKES HYDRO AMERICA, LLC	)	MAINE POLLUTANT DISCHARGE
T3 INDIAN PURCHASE, PENOBSCOT	)	ELIMINATION SYSTEM PERMIT
COUNTY, MAINE	)	
COOLING WATER DISCHARGE	)	AND
NORTH TWIN HYDRO PROJECT	)	
ME0036536	)	WASTE DISCHARGE LICENSE
W008078-5R-E-R	)	<b>RENEWAL</b>
		<b>APPROVAL</b>

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et. seq. and 38 MRSA Sections 413 and 414-A et. seq., and 06-096 CMR Chapter 582 (Regulations Relating to Temperature, effective date February 18, 1989, as amended), the Department of Environmental Protection (Department hereinafter) has considered the application of GREAT LAKES HYDRO AMERICA, LLC (GLHA hereinafter) with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

**APPLICATION SUMMARY**

GLHA has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0036536/Maine Waste Discharge License (WDL) #W008078-5R-D-R (permit hereinafter) which was issued by the Department on March 17, 2009 and is due to expire on March 17, 2014. The permit authorized the discharge of non-contact cooling water (Outfall #001) from the North Twin Hydro Project to the West Branch of the Penobscot River, Class B, in T3 Indian Purchase, Maine.

**PERMIT SUMMARY**

This permitting action is carrying forward all the terms and conditions of the previous permitting action.

## CONCLUSIONS

BASED on the findings in the attached **PROPOSED DRAFT** Fact Sheet dated November 19, 2013 and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:
  - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
  - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
  - (c) Where standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
  - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and
  - (e) Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

**ACTION**

THEREFORE, the Department APPROVES the application of GREAT LAKES HYDRO AMERICA, LLC, to discharge up to 36,000 gallons per day of non-contact cooling water at a temperature not to exceed 95 degrees Fahrenheit from the North Twin Hydro Project to the West Branch of the Penobscot River, Class B, in T3 Indian Purchase, Maine, as described above, SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

1. *“Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits,”* revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [Maine Administrative Procedure Act, 5 M.R.S.A. §10002 and Rules Concerning the Processing of Applications and Other Administrative Matters, 06-096 CMR 2(21)(A) (effective April 1, 2003)]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
For Patricia W. Aho, Commissioner

Date of initial receipt of application \_\_\_\_\_ November 6, 2013.

Date of application acceptance \_\_\_\_\_ November 19, 2013.

This Order prepared by Rod Robert, Bureau of Land and Water Quality

## **SPECIAL CONDITIONS**

### **A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. The discharge is limited to a flow of 36,000 gallons per day and a daily maximum temperature of 95°F.
2. The discharge shall not contain a visible oil sheen, foam, or floating solids at any time that would impair the designated uses or habitat characteristics of the receiving waters or would otherwise lower the quality of the receiving water below its assigned classification.
3. The discharge shall not impart color, taste, turbidity, toxicity, or other properties that would impair the designated uses or habitat characteristics of the receiving waters or would otherwise lower the quality of the receiving water below its assigned classification.
4. The permittee shall notify Department immediately of the discharge of any pollutants other than heat from the facility. The permittee shall also notify Department of any changes in facility design, operation or generating capacity that may affect the flow or temperature of the cooling water discharge.
5. All miscellaneous facility leakage and lubrication waters that may become contaminated with oil or grease shall be subject to Best Management Practices (BMPs) designed to prevent the release of contaminants to the waters of the state. Within 90 days of permit issuance, BMPs shall be developed by the permittee and shall be available in writing for Department review and approval upon request. BMPs may consist of, but not be limited to, the following, as appropriate: development and implementation of a spill prevention plan; use of oil absorbent pads or booms and/or physical berms to contain spills or leaks of hydraulic and lubrication oils; and the treatment of water collected in floor drains and sumps through an oil/grease trap or oil-water separator. Where bearing cooling water is used, BMPs shall include the maintenance of a written log or record of bearing oil levels and maintenance activities. Where floor drains and sumps are used, BMPs shall include (1) written procedures for the cleaning and maintenance of any oil-grease trap, oil skimmer or oil-water separator and (2) maintenance of a written log or record of visual inspections of sumps for oil and grease and of actions taken to prevent the discharge of oil or grease from the facility.

## **SPECIAL CONDITIONS**

### **B. UNAUTHORIZED DISCHARGES**

The permittee is authorized to discharge only in accordance with the permittee's *General Application for Waste Discharge Permit*, accepted for processing on November 14, 2013 and the terms and conditions of this permit. Discharges of waste water from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5)(*Bypass*) of this permit.

### **C. NOTIFICATION REQUIREMENT**

In accordance with Standard Condition D, the permittee shall notify the Department of any substantial change in the volume or character of pollutants being discharged.

### **D. REOPENING OF PERMIT FOR MODIFICATIONS**

Based upon site inspections, additional site specific or any other pertinent information or test results obtained during the term of this permit, the Department may, at anytime and with notice to the permittee, modify this permit to establish limitations or require additional monitoring, inspections and/or reporting based on the new information.

### **E. SEVERABILITY**

In the event that any provision or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court

**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT**

**AND**

**MAINE WASTE DISCHARGE LICENSE**

**FACT SHEET**

Date: **November 19, 2013**

PERMIT NUMBER: **ME0036536**

LICENSE NUMBER: **W008078-5R-E-R**

NAME AND ADDRESS OF APPLICANT:

**Great Lakes Hydro America, LLC  
1024 Central Street  
Millinocket, ME. 04462**

COUNTY: **Penobscot County**

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):

**North Twin Hydro Project  
North Twin Dam Road  
T3 Indian Purchase**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Kevin Bernier**  
**(207) 723-4341, ext. 118**  
**[Kevin.Bernier@Brookfieldpower.com](mailto:Kevin.Bernier@Brookfieldpower.com)**

**1. APPLICATION SUMMARY**

- a. Application: Great Lakes Hydro America, LLC (GLHA) has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0036536/Maine Waste Discharge License (WDL) #W008078-5R-D-R (permit hereinafter) which was issued by the Department on March 17, 2009 and is due to expire on March 17, 2014. The WDL authorized the discharge of non-contact cooling water (Outfall #001) from the North Twin Hydro Project to the West Branch of the Penobscot River, Class B, in T3 Indian Purchase, Maine.



## 1. APPLICATION SUMMARY (cont'd)

- b. History: The most current relevant regulatory actions and or significant events include the following:

*March 8, 1999* - The Department issued WDL #W008078-5R-A-N for a five-year term.

*January 12, 2001* – The State of Maine received authorization from the EPA to administer the National Pollutant Discharge Elimination System (NPDES) permitting program in Maine.

*July 11, 2002* - The Department issued transfer order #W008078-5R-B-T transferring the 3/8/99 WDL from Great Northern Paper to Great Lakes Hydro America, LLC.

*March 9, 2004* – The Department issued combination MEPDES permit #ME0036536/WDL #W008078-5R-C-R for a five-year term.

*February 3, 2009* – Great Lakes Hydro America, LLC submitted a timely and complete application to the Department to renew the 3/9/04 permit.

*March 17, 2009* – The Department issued combination MEPDES permit #ME0036536/WDL #W008078-5R-D-R for a five-year term.

*November 6, 2013* – Great Lakes Hydro America, LLC submitted a timely and complete application to the Department to renew the 3/17/09 permit.

- c. Source Description: The source of the discharge is a hydroelectric generating facility. The discharge consists of non-contact bearing cooling water. The discharge flow rate is variable, depending on cooling needs, up to a maximum flow of 36,000 gallons per day (maximum cooling system capacity, based on information from applicant). The discharge occurs from a single outfall.

Other miscellaneous discharges from the facility consist of shaft lubrication waters, foundation leakage waters, and/or leakage from wicket gates and other equipment. In the event of unplanned leaks, spills or equipment failure, these discharges may become contaminated with hydraulic or lubrication oil and grease.

## 2. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges require application of best practicable treatment, be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. "Best practicable treatment" (BPT) means the methods of reduction, treatment, control and handling of pollutants for a category or class of discharge sources that are best calculated to protect and improve the quality of the receiving water and that are consistent with the requirements of the Federal Clean Water Act.

Maine law, 38 M.R.S.A., Section 420, and Department rule 06-096 CMR, Chapter 530, *Surface Water Toxics Control Program* requires the regulation of toxic substances at the levels set forth by Department rule 06-096 CMR, *Chapter 584, Surface Water Quality Criteria for Toxic Pollutants*.

Maine law, 38 M.R.S.A. Section 414-A requires that a discharge, either by itself or in combination with other discharges, not lower the quality of any classified body of water below its assigned classification. Therefore, discharges shall be subject to any additional effluent limitations required to meet applicable water quality standards.

## 3. RECEIVING WATER QUALITY STANDARDS

At the point of discharge, the West Branch of the Penobscot River is classified as having Class B waters.

Class B waters shall be of such quality that they are suitable for the designated uses of drinking water after treatment; fishing; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat shall be characterized as unimpaired. The dissolved oxygen content of Class B waters shall be not less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration shall not be less than 9.5 parts per million and the 1-day minimum dissolved oxygen concentration shall not be less than 8.0 parts per million in identified salmonid spawning areas. Discharges to Class B waters shall not cause adverse impact to aquatic life in that the receiving waters shall be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community.

#### **4. REGULATIONS RELATING TO TEMPERATURE**

The Department's Chapter 582, *Regulations Relating to Temperature* states that no discharge shall cause the ambient temperature of any freshwater body to be raised more than 5 degrees Fahrenheit, nor shall any discharge cause the temperature of any waters to exceed the U.S. Environmental Protection Agency's (EPA) national ambient water quality criteria established to protect all species of fish that are indigenous to the receiving waters. When the ambient temperature of any body of water naturally exceeds the applicable EPA criteria, no thermal discharge may be allowed which alone or in combination with other discharges would raise the ambient temperature of the receiving water more than 0.5 degrees Fahrenheit.

The Department has established that cold water fish species are indigenous to all Maine rivers and streams. EPA has established maximum temperatures for the protection of growth and survival of cold water fish as follows: a weekly average temperature of 66 degrees Fahrenheit; and a daily maximum temperature of 73 degrees Fahrenheit.

#### **5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

EPA has not promulgated National Effluent Guidelines for non-contact cooling water. The DEP has made a Best Professional Judgment (BPJ) determination that BPT for hydro project cooling water is no treatment.

The Department has calculated that, under worst case conditions of maximum cooling water flow (36,000) gallons per day, maximum cooling water temperature (assumed 95 degrees Fahrenheit, based on staff analysis of industry data), and 7Q10 receiving water flow (2010 cfs), and without any treatment to reduce thermal loading, the discharge will raise the ambient temperature of the receiving water by only 1/100<sup>th</sup> of a degree Fahrenheit. Therefore, the Department has determined that neither effluent limitations nor monitoring requirements are necessary to ensure that applicable water quality standards are met.

#### **6. PUBLIC COMMENTS**

Public notice of this application was made in the Bangor Daily News and Lincoln News on or about October 25, 2013. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

## **7. DEPARTMENT CONTACTS**

Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Rodney Robert  
Department of Environmental Protection  
Bureau of Land and Water Quality  
Division of Water Quality Management  
17 State House Station  
Augusta, Maine 04333-0017      Telephone (207) 446-1875  
[rodney.robert@maine.gov](mailto:rodney.robert@maine.gov)

## **8. RESPONSE TO COMMENTS**

*Reserved until the close of the 30 day comment period.*